UNIVERSAL
LIBRARY

OU_152222

UNIVERSAL
LIBRARY

OSMANIA UNIVERSITY LIBRARY

Call No. 126/M36C Accession No. 14696

Author Marshall, H.R.

Title Consciousness

This book should be returned on or before the date last marked below.

CONSCIOUSNESS

MACMILLAN AND CO., LIMITED
LONDON · BOMBAY · CALCUTTA
MELBOURNE

THE MACMILLAN COMPANY
NEW YORK · BOSTON · CHICAGO
ATLANTA · SAN FRANCISCO

THE MACMILLAN CO. OF CANADA, LTD.
TORONTO

CONSCIOUSNESS

BY

HENRY RUTGERS MARSHALL

M.A., L.H.D.

AUTHOR OF 'PAIN, PLEASURE AND AESTHETICS,' 'AESTHETIC PRINCIPLES' 'INSTINCT AND REASON,' ETC.

MACMILLAN AND CO., LIMITED
ST. MARTIN'S STREET, LONDON
1909

GLASGOW: PRINTED AT THE UNIVERSITY PRESS
BY ROBERT MACLEHOSE AND CO. LTD.

To My Daughter

PREFACE

In the course of studies in relation to Aesthetics, undertaken many years ago, I was led to make a special study of the psychology of pleasure and pain, the results of which were published in the volume entitled *Pain, Pleasure and Aesthetics.* In that work there was presented for examination a theory of Algedonics which seemed more adequate to account for our pleasure-pain experiences than any I had met with in the published works of other students of the subject, and which appeared to avoid the difficulties that had heretofore availed to discredit the hedonic theory of Aesthetics.

Before I was willing to present this theory for examination and criticism, I had satisfied myself that it could be related with much completeness to other psychic fields than those directly considered, and had sketched in outline a restatement of psychological doctrine which seemed to bring all related psychic facts into harmony with the theory I defended. It was necessary however, in the book mentioned, to refrain from any but the briefest reference to this general restatement, not only because it seemed best to avoid discussions not distinctly essential to the argument of the book, but principally because an attempt to place this restatement before the reader would have involved the writing of a treatise on general psychology in which the discussion of Algedonics could have appeared

only as a special division, and such a treatise I had small hopes of being able to write.

This sketch of a systematic Psychology was completed in July, 1891, and corresponds in its main lines with the matter presented in the Second Book of this work. During the intervening years I have endeavored, in all my psychological studies, to test the validity of the general scheme then outlined; and having found that my conceptions of mental life have been materially clarified by its use, it has seemed worth while to put it in such shape that any value it may have may be tested by other workers in the same field.

Book III. in which I treat of the nature of the Self has been developed in connection with this attempt to make a systematic analysis of our mental states: but the thesis as to the nature of the Self, although developed later, has become an important component part of the whole as here presented.

In a work which aims to cover ground that has been the subject of thought of many masters, the reader will not be surprised to find much that is far from new; but he will pardon this when he notes that my aim is to present for his consideration not so much an array of newly discovered facts, but rather a special manner of viewing Consciousness as a whole, by which, it appears to me, we are enabled to treat the problems of Psychology in a more scientific and orderly manner than is possible from the points of view usually taken.

In what I have said above I have spoken of this work as an essay in Psychology. But I shall be prepared to find some trained metaphysician who may read the opening sections of the first chapter proclaiming that I, at the very start, make assumptions which necessarily involve metaphysical considerations, and that I write as though I had never heard of Berkeley or Fichte, not to mention Locke,

CHAPTER I

ENGLISH ECONOMY AT THE 'END OF THE MIDDLE AGES'

ECONOMIC history traces through the past the matters with which economics is concerned. These are the thoughts and acts of men and women in those relations which have to do with their work and livelihood, such relations as those of buyers and sellers, producers and consumers, town-dwellers and countrymen, rich and poor, borrowers and lenders, masters and men or, as we say nowadays, employers and employees, and unemployed too. In economic history there is never a definite starting-point. However far we go back into the past, we have to do with men who worked along with their fathers, in an economic world which was already a going concern when they were born, until the older generation dropped out and their own sons were working beside them. If we were to go back to palaeolithic times we should be dealing with a very experienced world in which there had been many changes and in which new practices were growing up while others were obsolescent. This little book will therefore begin in the middle of the story, as we all have to begin our lives in the middle of it; it will begin at a selected point of time, without leading up to it through the previous ages, which indeed were almost altogether unknown to the people then living.

The point at which we begin is the year 1496, when King Henry VII had been eleven years on the throne, when the authority of the Catholic Church was still unchallenged, and when no one had yet reached

importance, and that I have done no injustice to others working in the same field whose writings I have missed or overlooked. I cannot but make my special acknowledgments however to Prof. Wm. James, whose works have been a constant source of inspiration to me even where I find myself in disagreement with him; and to Dr. G. F. Stout, by whose emphasis of the importance of considering consciousness as a system the reader will discover my thought has been very materially influenced, although it will be equally clear that I have departed in many respects from his conceptions and methods.

TABLE OF CONTENTS

BOOK I. OF CONSCIOUSNESS IN GENERAL

DIVISION I. THE GENERAL NATURE OF HUMAN CONSCIOUSNESS

CHAPTER — PAGE

I. The Primary Analysis - - - - - - 1

II. Of Neururgic and Noetic Correspondences - 12

III. Self-Consciousness and the Self - - - - 35

IV. The Disparateness of Noetic Emphases or Presentations - - - - - - - - 46

V. The Mutability of Noetic Emphases or Presentations

I. Each Noetic Emphasis and each Noetic Pattern is New and Unique - - - - - - - - 53

II. Of Likeness, Unlikeness, and Comparison - - 61

III. Of "Representation" - - - - - - - 66

Appendix A. Certain Considerations in relation to the diverse types of Presentations referred to in Chapter IV. - - 97

DIVISION II. OF OTHER THAN HUMAN FORMS OF CONSCIOUSNESS

VI. Of Consciousnesses simpler than Human Consciousness; and the Limits of Human Consciousness 148

CHAPTER PAGE

VII. Of Consciousnesses more complex than Human Consciousness - - - - - - - - 173

BOOK II. THE GENERAL NATURE OF HUMAN PRESENTATIONS

PART I.

GENERAL QUALITIES OF RELATION AROUSED IN CONNECTION WITH ALL PRESENTATIONS

Introduction - - - - - - - - - 189

DIVISION I. GENERAL QUALITIES OF GROUP I. INVOLVING THE RELATION OF MORE OR LESS

Sub-Division I. General Quality of an Elementary Nature

VIII. Intensity - - - - - - - - - 192

Sub-Division II. General Qualities determined by the Complexity of Presentations

IX. Manifoldness - - - - - - - - 215

X. Realness - - - - - - - - 221

DIVISION II. GENERAL QUALITIES OF GROUP II. INVOLVING A NORM AND DEPARTURES IN OPPOSITE DIRECTIONS FROM THIS NORM

Sub-Division I. General Quality of an Elementary Nature

XI. The Algedonic Quality - - - - - - 243

Sub-Division II. General Quality determined by the Complexity of Presentations

CHAPTER PAGE

XII. The Time Quality - - - - - - - 269

PART II.

QUALITIES OF RELATION DETERMINED BY THE CORRELATION OF THE GENERAL QUALITIES STUDIED IN PART I.

DIVISION I. INTRODUCTION

XIII. The General Relations within Groups I. and II. 303

DIVISION II. THE CORRELATION OF THE GENERAL QUALITIES OF GROUP I.

XIV. Intensity and Manifoldness. Attention. Voluntary Attention - - - - - - 313

XV. A. Realness and Manifoldness. The Object-Subject Relation. Belief - - - - 344

B. Attention and the Object-Subject Relation 365

DIVISION III. THE CORRELATION OF THE GENERAL QUALITIES OF GROUPS I. AND II.

Sub-Division I. The Algedonic Quality in Relation to Qualities of Group I.

XVI. The Algedonic Quality in Relation to Intensity and Manifoldness

I. The Relation to Intensity - - - - - 371

II. The Relation to Manifoldness - - - - 380

III. The Relation to Attention - - - - - 383

IV. The Action of the Empirical Ego. Interest - - 390

CHAPTER PAGE

XVII. The Algedonic Quality in Relation to Realness and Manifoldness

I. The Relation to Realness - - - - - 395
II. The Relation to the Object-Subject Relation - 403
III. The Action of the Empirical Ego - - - 407

Sub-Division II. The Time Quality in Relation to the General Qualities of Group I.

XVIII. The Time Quality in Relation to Intensity and Manifoldness

I. The Relation to Intensity - - - - - 411
II. The Relation to Manifoldness - - - - 412
III. The Relation to Attention - - - - 416
IV. The Action of the Empirical Ego - - - 419

XIX. The Time Quality in Relation to Realness and Manifoldness

I. The Relation to Realness - - - - - 423
II. The Relation to the Object-Subject Relation - - 431
III. The Action of the Empirical Ego. 1. Memory. 2. Expectation - - - - - - - 434

XX. A Reconsideration - - - - - 460

BOOK III. THE SELF

XXI. The Self and the Empirical Ego. The Hypothesis - - - - - - - - 469

XXII. The Nature of the Empirical Ego. Of "Feeling" - - - - - - - - 480

Appendix B. The Qualities of Presentations as displayed in the Empirical Ego - - - - - 506

XXIII. The Nature of the Self - - - - 524

CHAPTER PAGE

XXIV. The Relation between the Empirical Ego and its Objects as compared with the Relation between the Self and its Presentations - 537

XXV. The Relation of Efficiency between the Empirical Ego and the Self, and the General Qualities of Presentations - - 555

XXVI. The Mutability of the Empirical Ego and of the Self - - - - - - 596

XXVII. Corollaries - - - - - - - - 623

Index - - - - - - - - - 680

BOOK I

OF CONSCIOUSNESS IN GENERAL

DIVISION I. THE GENERAL NATURE OF HUMAN CONSCIOUSNESS

CHAPTER I

THE PRIMARY ANALYSIS

I

Sec. 1. One of the most serious difficulties met by the careful student in any field is found in the unfortunate manner in which we are wont, in common speech, to employ a single word to refer to two or more meanings which in the course of the growth of language have become quite diverse. Such is the case with the word consciousness which I use as the title of this book: a word which I would gladly displace could I find another equally convenient and equally well understood.

Although this word has been employed in many different ways,[1] two very distinctive usages are commonly met with. According to the first of these usages, which is the one

[1] Confer Appendix to Bain's *Emotions and Will.* Of late it has even been suggested that the use of the word be abandoned because of objectionable metaphysical connotations attached to it by certain authors. Confer William James and Frederick J. E. Woodbridge, *Journal of Philosophy*, etc., i. 18, and ii. 5.

adopted in this work, the word consciousness refers to psychic existence as such; as, for instance, one speaks of the hypothetical consciousness of the plants. But one is likely also to hear someone say, "you will not be conscious of the heat if you play a game of tennis with me," and here the word is made to refer to states of "awareness" as opposed to mere "sentience." Evidently consciousness as a mere psychic existent does not necessarily imply awareness, which is a special reflective type of psychic existence, and I therefore prefer to use the word in the broader sense, especially as the words unconsciousness and unconscious are employed almost invariably by the plain man, and the scientific writer as well, to refer to psychic-non-existence. Maudsley thus spoke of "unconscious cerebration" in referring to brain activities, to which under his view no psychic existences correspond: and thus the average man speaks of the unconsciousness of coma and of deep sleep, implying that they are states in connection with which nothing psychic exists.[1]

Sec. 2. If we employ the word consciousness in this broad way it may be said that at any moment, so far as I am concerned, the "now" of consciousness is all that exists, whether of me or of the universe for me. It is true that some phases of consciousness as grasped in reflection appear to involve more than my consciousness, appear to tell also of an objective world which is not of my consciousness, and which is not dependent upon the existence of my consciousness for its existence. But even so it is clear that if I conceive my consciousness annihilated I must conceive myself to be at that moment non-existent, and must agree

[1] I imagine that when Prof. James speaks of "pure experience" he refers to what I would here apply the word consciousness. But the word experience seems to me to be objectionable in that it connotes a somewhat that experiences, and thus may be taken to refer to what is really merely a certain phase of consciousness considered as a psychic existent.

the rewarding of services by granting a livelihood from land. But there were so many other exceptions that they constituted a second system alongside of the feudal system, the system of the 'cash nexus' or money tie. To work any estate satisfactorily, some regularity was necessary, and for centuries past there had been agreements, generally, though not always, embodied in legal documents, by which the services due to lords in their manors had been fixed. As demands for money in taxation and as buying and selling for money in markets extended, it suited many people to whom services or payments in kind were due to 'commute' them and take money instead. Equally, it suited those who owed services or payments in kind, especially if these were uncertain, to be quit of these obligations for fixed sums of money and to raise the money by selling their produce, thus venturing out from the comparatively limited opportunities of the manor into the more adventurous world of the produce markets, with their risks of loss and their chances of profit. Thus, all along the line, money relations became a new economic basis for agriculture. In the fifteenth century landlords took to letting their demesne farms on leases, so much land for such and such a time for so much rent. Therefore they no longer needed unpaid labour; they were willing to give the villeins documents enfranchising them, making the burdens of their copyhold tenure certain and commercial in nature. The villeins were willing to pay the fees for these documents, which gave them command over their own time and their produce, and so by 1496 there were very few villeins left in England. Although there was still an intricate web of feudal obligations entangling, as well as steadying, agricultural life, the newer system

to exhaust the consciousness of the moment, but appears to stand over against a something else of consciousness which is vague and elusive. This vague and elusive psychic "something else of consciousness" we call the Self, and the relatively clear and distinct somewhat is commonly now-a-days spoken of as the presentation to the Self. This presentative somewhat we may speak of as a psychic emphasis within consciousness, reserving for the moment any attempt to justify this use of the term.

Some of those who employ the word presentation hold on metaphysical grounds that the presentation is given to a Self which is beyond consciousness. I would ask the reader to note that I look upon the Self[1] as part and parcel of the consciousness in which the presentations appear.

Sec. 4. At times there seems to emerge, as it were, out of this vague and elusive "something else of consciousness" to which presentations are given, a somewhat more explicit with which these same presentations also appear to stand in contrast, and then we find ourselves assuming a special attitude which we describe as that of self-consciousness.

We then experience not only that psychic emphasis (*e.g.* a bright light) which a moment ago appeared merely as a presentation within consciousness which it did not exhaust, but we experience this psychic emphasis as an object related to an ego (*e.g.* when I experience the fact that *I* am sensible of the bright sensation), both this object and the ego to which the object is related together standing contrasted still with a something else of consciousness. What was before a presentation to the Self retains this presentative characteristic, but has become bound up with an ego which also appears as part of a presentation to the Self. The dual whole,—the object and the ego itself,—is thus a complex psychic emphasis standing in contrast with the rest of

[1] I refer here of course to the Self of the moment in which the presentation is given, and not to the conceptual Self which we study later.

no distinction was drawn between his public capacity as the head of the State and his private capacity as a landlord. The revenue from his many manors and miscellaneous dues had recently been increased by stricter, more efficient and more centralized administration, while the confiscations of the lands of rebels increased his possessions. The king's net revenue as landlord was probably now about £18,000 a year. In itself that figure tells us very little; but it is useful to compare it with some other figures.[1] The richest of King Henry's subjects was Sir William Stanley, and when his property was confiscated after he was condemned for treason, he appears to have been worth £9,000 in ready money and more than £1,000 a year in revenue from lands. The nobility, who in 1496 consisted only of about forty peers and their families, were men of perhaps between £500 and £1,000 a year. Below them, though not divided economically by a hard and fast line, came a great body of 'gentry'—a word not yet used in this sense—numbering altogether perhaps 9,000 or so, whom we may describe as squires, lords of manors. Their incomes varied from several hundred pounds in cash or kind or both to £10 a year. According to the law, everyone with more than £40 a year from land had to become a knight, thus acquiring a title of honour which involved the payment of certain taxes on a higher scale. The richer gentry were lords

[1] Throughout this book I have given figures of the public revenue and of typical incomes. These are useful for comparison provided we have an idea of how the different types of people lived. I have avoided comparisons of the purchasing-power of sums of money, such as a pound. Even when things bought at different periods were similar, their place in the whole outlay and consumption of the purchasers changed so much that the changes of prices did not mean that they were proportionately harder or easier to acquire.

These "objects in the outer world," in their turn, are of many special kinds and types. One of these special types is the human body; and still another, quite within the human body, is the ever active nervous system.

Sec. 6. This analysis may perhaps be made clearer by reference to the following diagram:

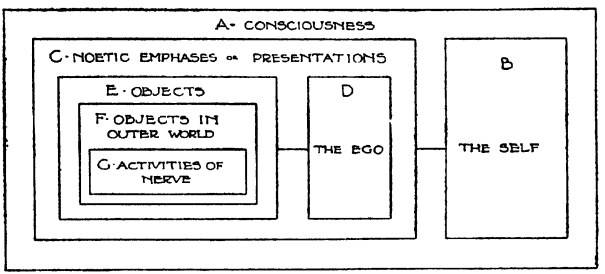

FIG. 1.

We discover that we naturally place our presentations (Class C) in two great groups, whether they appear as objects (Class E) or not.

We find first our sensations, our emotions, pleasure and pain, our percepts, our images and ideas, and our more or less complex concepts, etc., all of which are commonly spoken of as subjective states; and this because we have an indefinite appreciation of the fact that they bear a close relation to the Self, the basis of which notion we speak of later.

Contrasted with these so-called subjective states we find certain complex systematized concepts which we describe as objective realities, and which appear to be in a certain sense independent of, and outside and beyond, these purely subjective states. One of these objective realities is the human body, within which exists an active nervous system.

Sec. 7. Now we have discovered the very interesting fact that changes in the class of presentations G (activities of

as the king, or the State, but, of course, with the difference that the king's revenues were all his own, but the Church as such was not one landlord but an aggregate of more than ten thousand, from the bishops and mitred abbots who lived like great noblemen to the parish priests who lived little better than their copyholding neighbours.

The land represented the result of thousands of years of work and planning, which in some places had never been interrupted. The clearing of forests and moors and scrub, the draining of marshes and valleys had created a vast fixed capital, and this was preserved and managed by elaborate institutions which controlled the working of the landlords' authority and of money transactions. The reclaimed marshes give the best example. Romney Marsh, where the richest sheep pastures in the country were, was drained land, and the duties of the landowners in keeping up the ditches and embankments were enforced by a system of juries, which enlisted local co-operation and business capacity under royal authority in vigorous self-government. The 'custom of Romney Marsh' was in force also in parts of Yorkshire, Lincolnshire and elsewhere; and there were drained areas in the Fens, around the Thames Estuary, in Sedgemoor, in the Isle of Wight, and other parts. But what was obvious of these areas was more or less true of the whole cultivated area: it was made land, a fund of productive wealth formed by the investment of their surplus resources by countless individuals. Some of them were pioneers who added to their own holdings by the sweat of their brows; others were landowners who singly or in combination organized their hired men and tenants for larger works which would not repay them until

outer-world conceptual object which is conceived of as having perceptual potentiality, and this change is judged to correspond with the change in the non-object-in-the-outer-world presentation which we call the pricking pain.

Changes in this activity of nerve thus seem to correspond with changes in the form of consciousness which we speak of as purely internal, or subjective; and this correspondence has been observed in so wide an array of cases that neurologists and psychologists in general have come to the conclusion that in all probability all changes in conscious life correspond with changes in this activity of nerve;—even the very conception of "action of nerve" itself corresponding with a conceptual action of nerve not at the moment presented in consciousness. This from our present point of view is the hypothesis of neururgic and noetic[1] correspondence to which we refer often below.

Sec. 8. The natural man does not distinguish between the objective (Class E) and the subjective (Class C apart from Class E), as any one who questions him may easily discover; and this leads us to surmise that in the beginning

[1] I have adopted this word "neururgic," meaning "relating to the activity of nerve," because there seems to be no word in current use which has this specific meaning, and which is free from disturbing connotations. I first used it in an article published in *Mind* for October 1902. Dr. Maudsley (*Mind*, 48) used the words "neurotic pattern," and William Cyples in his *Process of Human Experience* used the phrase "neurotic diagram" in somewhat the same sense in which I use later on the phrase "neururgic pattern."

The word *noetic* has been used by Hamilton "to express those cognitions which originate in the mind itself," in contradistinction to those determined by impressions from without; and in this use of the term he has been followed by other writers. Dr. Stout in his *Analytic Psychology* distinguishes between "noetic" and "anoetic" mental states, but he acknowledges (vol. i. p. 171) "that the antithesis of active and passive states of mind is not absolute; instead of a well-marked transition from the presence of activity to its complete absence, we find a series of insensible gradations." As I hold that there is no difference of kind in mental activity in the direction indicated there seems to be ample justification for my use of the word "noetic" in this connection, in consideration of its convenience.

of man's growth in intelligence he failed altogether to make the distinction between the two, this view being strengthened when we consider his uncritical animistic conceptions.[1]

But objective presentations, as we shall see later, must always as a class be more emphatic and striking than subjective presentations, and hence we find all men displaying a deeply ingrained habit which leads them to consider all of their experiences objectively. The learned psychologist displays this tendency as much as does the plain man, and if we take this fact into consideration it becomes apparent that when one or the other notes that a relation exists between that subjective presentation which he calls his mind, and that objective presentation which he calls his body, he habitually considers his mind quite objectively as though it were the mind of another man. He has in consciousness the objectively real world apart from the man M; and he has the objectively real nervous system of the man M which is affected by the energies within its objective environment; and he has also the objectively real consciousness belonging to the man M, the existence of which he assumes as the result of his own experience as related with his observation of other men. He may indeed be thinking of himself as the man we have called M; but even so the relation as thus considered is altogether a relation between objects.

The fact that he thus considers the mental changes related to nervous changes in an objective way is often overlooked by the psychologist, because he so constantly refers to his own experienced conscious changes in order that he may know what forms of consciousness to attribute to the mind of the man M as objectively viewed.

[1] As Santayana has lately suggested the ascription of minds to all outer-world objects was natural to the man who failed to distinguish with clearness the objective from the subjective, but who had begun to appreciate the distinction, and had found himself forced to attribute to his fellow-man a mind similar to his own.

The psychologist is entirely warranted in adopting this objective attitude, which indeed all scientific investigators adopt in their work, provided he does not overlook the fact that there is an entirely different mode of considering this relation between mind and body which, following common usage, we may call the thoroughgoing subjective view, which is in a sense more fundamental and more significant than the objective view, and according to which, as we have seen, the outer world, and the objects within it, are complex systematized concepts which are within and part of consciousness. It is not easy to keep this distinction of standpoints clear, and therefore not surprising that we find ourselves shifting from one to the other, and often to our great discomfiture.[1]

In as much as I shall deal with this relation of mind and body from the objective standpoint in much that follows, and in order to avoid unusual forms of statement shall use the objective terminology where I refer to the relation in my consideration from the subjective point of view, it has seemed well here to state briefly the relation of mind to body in non-objective terms.

[1] It seems clear for instance that if we maintain the objective view we are unable to entertain the suggestion of the idealistic ontologist that *esse* is *percepi*. For as objectively viewed the existence of the object in this world is not dependent upon any such relation of the man's body to this object as will necessarily involve the existence of a percept in his consciousness. The man may close his eyes, and then in this objective view I still have in my experience the real existent object in the outer world; and also the man's nervous state now unaffected by this object as it was when his eyes were open; and also his assumed state of consciousness correspondingly altered.

But the case is quite different if we consider the question altogether subjectively; and it would seem that, if we are to deal *ontologically* with the relation of consciousness to the world which appears as apart from it, we must abandon the objective attitude altogether. For the problem set for himself by the ontologist is this: what is the meaning of the fact that our percepts have a reference to objective realities. Now he cannot "get into the skin" of his objectively viewed man to take cognizance of the evidences

displayed in such relationship as there exists: he is really dealing with a question of relations within his own consciousness as a whole, in which objective realities appear as systematized concepts. And in this subjective consideration he does not discover any opposition whatever to holding that *esse* is *percepi*.

The difficulty usually found by the plain man in dealing with this problem is due to the fact that he thinks you are asking him to consider a problem relating to his objective experience. The difficulty the average philosophical student finds with this problem seems to be that he thinks of his percept in the subjective way and of his reality in an objective way. As we have seen above, if he clings to the subjective view he finds no difficulty in agreeing that *esse* is *percepi*. And if on the other hand he clings to the objective view this same position is easily maintained, but then it would be expressed by saying "when my friend's percept ceases to exist his experience of an object causing this percept ceases to exist also"; this being the objective description of the same fact which when subjectively considered leads to the statement that *esse* is *percepi*.

CHAPTER II

OF NEURURGIC AND NOETIC CORRESPONDENCES

I

Sec. 1. Let us now, frankly taking the objective standpoint, attempt to make clear the implications of the observation that certain changes in the body of a man correspond with certain changes in that man's consciousness.

The earliest of thinkers must have noted that the mind on the one hand appears at times to govern bodily activities; and that bodily conditions, on the other hand, appear at times to determine the nature of mental states; and these observations must certainly have led to equally early questionings concerning the nature of the relation between man's consciousness and his bodily states. Nevertheless, even in our day we find the majority of intelligent men content to look upon this relation as a more or less haphazard and lawless one. They rest satisfied with the notion that the mind acts upon the body *only occasionally*; and that the activity of the body, or of the nervous system within it, *only occasionally* involves consciousness.

In these days we trace back the source of these bodily activities to the activities of the nervous system, and have generally accepted the view that some sort of correspondence exists between neural and psychic changes. The keen study of the structure and functioning of the brain has brought forward a great accumulation of evidence of this

correspondence, and has led to the assumption, to use familiar terms, that there can be no "psychosis without a corresponding neurosis,"—or as this is usually understood, that no change can occur in a man's consciousness unless a corresponding change occurs in the brain part of his nervous system.

This hypothesis is accepted by the great body of scientific men of our time, although it must be acknowledged that but a relatively small number of "psychoses" have been connected with recognized "neuroses"; and that the best that can be said in support of this view is that each advance in the study of the activities of the brain has added to the evidence which supports the hypothesis.

Sec. 2. Any investigator in whom logical tendencies are developed, and who has reached the conclusion above spoken of, can scarcely fail to note that the theory thus developed is one-sided, and must find himself asking whether it may also be held that there can be no "neurosis without a corresponding psychosis."[1] It appears, however, so evident to the average student that there are many brain activities which are not accompanied by alterations in consciousness that little attempt has been made to study this special question; psychologists and neurologists alike have been content to hold that mental activity is only occasionally coincident with neural change.

Psychological research in late years, however, has brought forward much evidence to show that in many cases where neural action had not been supposed to have a mental correspondent, such correspondent does really exist, but is obscured, and unnoticed, or quickly forgotten. This has

[1] George Henry Lewes in his *Physical Basis of Mind* has set forth many arguments in favour of the view that all neural activities have their psychic coincidents. In the opinion of the writer the general conclusions thus presented by Mr. Lewes and others have not received the serious attention they deserve from either psychologists or physiologists.

led to the assumption that there exist what are spoken of quite improperly as unconscious mental activities; and later to the assumption that there are what are little less unfortunately called "sub-conscious" mental states; and these are conceived of as correspondent with certain neural activities which had been thought to bear no relation to consciousness. Nevertheless the investigator still makes note of many nervous activities which do not appear to be in any way connected with what we usually think of as our mental life.

But in considering the evidence before us, it is especially worth while to bear in mind the two meanings that are attached to the word consciousness, of which we have spoken in the opening section of Chapter I. For when we enquire whether all neururgic changes have correspondent with them changes in consciousness, we use the word consciousness as the equivalent of psychic existence. But when, in opposition to such a view, we say that many known neururgic changes occur without any changes in consciousness, we use the word consciousness as the equivalent of awareness. The evidence adduced is therefore utterly inconclusive: for, as psychic existence may well be, and doubtless is, broader than awareness, it may be that the neururgic changes under consideration do involve psychic changes but of a type of which we cannot become aware.

In the opinion of the writer, the difficulties connected with the hypothesis that all neururgic changes have noetic changes corresponding with them disappear entirely if we turn our attention away from the consideration of activities in certain parts of the brain, which are evidently coincident with very emphatic and clearly noted alterations within consciousness; and consider the nature of the activity of the nervous system as a whole, of which system the brain is merely the pre-eminently important part.

Sec. 3. We find ourselves now-a-days looking upon the cortex of the brain as having the same general nature as the

rest of the nervous system, but as a special part which has developed within the small confines of the skull, and which, in being thus crowded into a compact space, has become much folded up, this crowding involving a much closer relation between the parts there located than is observed in the rest of the nervous system. We thus find a mass of important parts of the system concentrated in the brain, the activities in which correspond with very marked changes in our mental life; and many thinkers have thus come to look upon the brain as the "organ of mind"; and to consider the activities of the rest of the nervous system as either of relatively small importance, or as of no importance whatever, in relation to our mental life. If the nervous system had been so arranged that this crowding within the skull had not occurred, it is highly improbable that we would have ever been tempted to look upon the activities of any part of the nervous system as without importance in relation to the correspondence between neural activities and changes in consciousness which we are here considering.

Sec. 4. The acute investigations of the neurologist during the last century have enormously increased our knowledge of the nature of this nervous system, and have brought out clearly one fact of great importance to the psychologist. They have taught us that the nervous system is not a simple system, but is really a system of minor systems of hypothetical nervous elements. Within the nervous system, taken as a whole, we find minor systems of the first order; one (α) which has to do with environmental stimulation; another (γ) which has to do with the organism's reaction upon its environment; and another very broad system (β) which has to do with the coordination of minor nervous systems (α) and (γ). And within these minor nervous systems of the first order we find nervous systems of lower orders, one within another in indefinite number. Each minor nervous system of one of the lower orders is

integrated, as we say, and has its characteristic individuality; but these minor nervous systems of the lower orders as such are themselves interrelated and integrated to form broader minor systems, and all of these latter are bound together to form the highly complex nervous system as a whole.

This being so, it is exceedingly interesting to note that the modern introspective psychologist, in like manner, has come to the conclusion, in the first place, that consciousness is not atomic, but systemic; but beyond that, that it is a vastly complex system of minor psychic systems. We find, for instance, minor psychic systems of what we may call the first order; (A) Sensations, which have to do with environmental stimulation; (Γ) Instinct-Experiences, which have to do with reaction upon the environment; and (B) the very broad realm of Ideas,—of Thoughts,—which has to do with the coordination of minor psychic systems A and Γ. And within these minor psychic systems of the first order we find minor psychic systems of a second order. In the realm (A) of Sensation we have light, sound, etc.; in the realm (Γ) of Instinct-Experiences, various types of emotion, for instance, love, anger, etc.; and in the realm (B) of Thought a vast array of what, following Stout, we may call apperceptive systems. And beyond this, within each of these minor psychic systems of the second order, we find an indefinite number of minor psychic systems of still lower orders. Each minor psychic system of one of the lower orders is integrated, as we say, and has its characteristic individuality; but these minor psychic systems of the lower orders, as such, are themselves interrelated and integrated to form broader minor psychic systems, and all of these latter are bound together to form the highly complex psychic system which we call consciousness.

Sec. 5. It seems probable to the writer that if we had discovered the broad correspondence above considered before

we had been taught to believe that the activities of the cortex of the brain are alone concerned with modifications of consciousness, we would not have considered this latter hypothesis tenable. On the contrary, we would have assumed that the correspondence between what I have called neururgic and noetic changes is thoroughgoing: that not only is there no modification of consciousness without a neururgic change, but that no neururgic change can occur without a corresponding modification of consciousness. We would have made this assumption because, with the data before us, and without the preconceptions with which we now approach this subject, we would consider the problem somewhat as follows.

We would begin with the assumption, which I think we are entitled to make, that each nervous element is in some measure active so long as it is alive. If this is true, then whenever we observe what we call a special activity in a part of the nervous system, we are dealing really with what is merely an emphasis of activity in a special part of an all-active system.

If we thus assume that all parts of the living nervous system are active, then we may symbolize its neururgic condition in spatial terms by conceiving the neural elements to be spread out on a plane, and so distributed that each neural element would be represented by a little square on a flat surface divided by two sets of equidistant lines drawn at right angles to one another. We may then represent the amount of activity of each element by a certain rise of its corresponding little square above the plane. In any moment considered, all of the little squares will be raised to some degree above the plane, and the amount of their rise will vary from moment to moment. Now we have here the general conditions which give to us the wave forms upon the surface of any liquid, where the particles of water rise and fall without being changed in lateral position,

except by forces which do not here relate to our consideration. We shall find it useful, therefore, to represent the activity of the nervous system by a wave covered liquid surface.

As the nervous system has many points of contact with its environment, from which come at any one moment many physical impulses of varied kinds, and of varying degrees of energy; so at any moment the several parts of the surface by which we represent it will be raised above the fixed plane in varied degrees; and at any chosen moment the surface will appear as giving a specific configuration which I shall speak of as a "neururgic pattern." I give below a diagram[1] representing a small section of such a neururgic pattern.

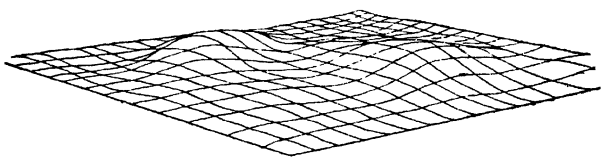

FIG. 2.

At each moment then the nervous system as a whole displays what we thus call a *neururgic pattern*, in which certain parts are more markedly active than others. The markedly active parts are not the only active parts; but their activities are set over in contrast with the great body of less markedly active parts, which latter form an undifferentiable mass of minor activities against which specially marked activities appear as *emphases* of activity.

Sec. 6. Having thus represented to ourselves the condition of the ever active nervous system we would

[1] The reader will recognise that this diagram is copied with some changes from one used by Prof. James in his *Psychology* for another purpose.

then argue that, if the neururgic and noetic correspondence is thoroughgoing, the condition of consciousness at any moment may be described in similar terms as follows. At each moment consciousness, which is a vastly complex system of noetic systems, displays what we may call a *noetic pattern* in which certain psychic parts are more emphatic than others. The markedly emphatic parts are not all there is of consciousness in any moment under consideration, but these markedly emphatic parts are merely set over in contrast from the great body of less emphatic parts; which latter form an undifferentiable mass of minor psychic parts against which the specially emphatic parts appear as *psychic emphases.*

And this we find to accord with experience. For in the first place we have what is generally agreed to be ample evidence that the psychic states which we designate as the field of attention (what under our terminology we would call the psychic or noetic emphases) do correspond with emphatic activities in parts of the nervous system (what I would call the emphases of activity in the neururgic pattern).

This being granted the question would arise whether there exists an undifferentiable noetic mass against which these noetic emphases are contrasted, corresponding with the undifferentiable neururgic mass against which the neururgic emphases are contrasted. And to this question we would not hesitate to give an affirmative answer. For we note that the field of attention, if we may use a current ocular simile, spreads out from a clear focus to a margin, and this margin to "fringes," and that these "fringes" seem to fade into a vague and elusive aura. Even if we experience the most punctual of vivid sensations, for instance, it does not seem to exhaust the consciousness of the moment; there is always a something more of the consciousness of the moment when the sensation appears;

its appearance clearly does not involve the annihilation of this rest of consciousness. And this becomes clearer in the very fact that we have come to speak of these clear elements of attention as presentations. If they are so called it must be because they seem to be presentations to something; and under our view that to which they are presentations is the undifferentiable mass of unemphatic psychic parts which constitutes what we may well speak of as the *field of inattention, or sub-attentive consciousness.*

This field of sub-attentive consciousness we would hold must always exist while life exists, and we would therefore contend that the common man is wrong for instance in stating that we are unconscious during sleep or in states of coma. And if evidence in favor of this contention were demanded we would in turn demand from our critic evidence that sub-attentive consciousness does not exist under such conditions. We would ask him to note that the only evidence he has to offer in favor of his view is the fact that he is unable to recall in wide-awake life any psychic events of the moments of what he calls unconsciousness. We would warn him against the common fallacy which leads us to assume that when we reflect upon a past state we have before us in attention all there was of the past state upon which we reflect. And we would then show him that his argument if valid would compel him to hold that he is unconscious in all moments where the psychic events fail of recall in later moments; and furthermore, that if he made such a contention he would be forced to refer all forgetfulness to moments of unconsciousness in the past; a position which would of course be untenable.

Sec. 7. We would then have before us for explanation the facts which in the main have led us to the adoption of the current theory that the "brain is the organ of

commercial states by refusing to buy their wares, for England was not a very great buyer of any class of goods. Its imports were a miscellaneous list, some materials, like woad from France and Germany, and alum from Italy, which it needed for cloth-making and dyeing, then wine, fish, salt, Eastern spices, fine textiles. Above all, it was hard to get a footing in the overseas markets for cloth. The human race has usually been better off for clothing than for food. The textile industries usually grow in advance of all others: both the raw material and the finished products are durable, and the means of producing them are easily expanded. In the later fifteenth century the established industrial districts were making more cloth than they could easily dispose of; English economic nationalism had to face protectionist opposition everywhere.

The woollen manufacture in England had developed out of all proportion to other industries. There were well-defined industrial districts. About half the woollens were made in the west—that is, in Gloucestershire, Wiltshire, Somerset, with outlying districts in Oxfordshire, Berkshire, Hampshire, Dorset, Devon, and Cornwall. The best broadcloth for export came from Wiltshire. Another quarter of the woollens came from East Anglia. Here a branch of the industry, named from the Norfolk village of Worsted, had its chief home: it used long-fibred wool and made a durable stuff, not felted like the woollens, but apt to become shiny with use. The West Riding of Yorkshire was another rising centre of manufactures, which spread up the dales as far as Kendal in Westmorland. Towards the Welsh border the dyers and finishers of Shrewsbury handled the coarse Welsh woollens, and there was a considerable manufacture in Gloucester,

Sec. 8. Such an hypothesis of thoroughgoing correspondence as is above outlined I shall assume and make free use of in what follows. It is a form of what is now-a-days generally called the doctrine of "parallelism." I shall not quarrel about terms; but I purposely call it a theory of "correspondence" to indicate that I wish to separate myself from those "parallelists" against whom the sharp arrows of Dr. James Ward's criticisms are aimed.[1]

Sec. 9. It will be apparent to the reader that this conception of the nature of nervous activities, and of coincident consciousness, has nothing in common with those atomistic theories of mind which were current among the earlier advocates of the association psychology. Consciousness is not looked upon by us as a mere mass of psychic atoms, nor as a mass of psychic atoms which are related together in a manner similar to that assumed when we conceive of the molecules of which chemistry and physics treat. Rather is it looked upon as a unit of vast complexity, in which what have been described by the associationists as though they were psychic atoms and molecules, are considered rather as centers of emphasis within the whole pulse of activity of the whole complex psychic system.

The reader will of course also perceive that this notion that consciousness must be looked upon as a psychic system is one which is involved in all the opposition to the atomistic psychology which has been so marked a feature of the work done by the masters of Psychology during the past fifty

[1] Confer his *Naturalism and Agnosticism*. I agree with Dr. Ward that a metaphysical position of doubtful validity is usually involved in the statements of the doctrine of "parallelism"; but I would maintain that a theory of correspondence may be held by, and found exceedingly useful to, the psychologist who, remaining within the field peculiar to his work, waives all questions as to the meaning of this correspondence, and declines to involve himself in the dispute between those who claim, and those who deny, that there is a causal relation between mental and bodily activities.

years. The importance of the implications have not, however, in my view, been thoroughly realized even by these masters.[1]

II

The general considerations presented in the preceding sections may well be followed here by a study of the conceptions to which our main hypothesis leads; in which we may note in some detail the neururgic and noetic correspondences to be referred to in the pages to follow. In order that these correspondences may be made clear we place in parallel columns the remarks to be made in reference to neural activities and to the psychic correspondences respectively.

Sec. 10*a*. When we speak of a nervous system, we imply that the parts of the nerve substance which we are able to observe as spatially separable from one another, are so related that what we call an activity in one special part affects in some measure the nature of the activity in each and every other part of the whole nervous system; the activity of the special part being at the same time influenced by the nature

Sec. 10*b*. Such parts of consciousness as we are able to observe in reflection, appear to form a psychic system. But we realize that what appears in reflection is only part of the whole of consciousness; and this whole of consciousness is to be looked upon as a psychic system broader than that which appears in the field of reflective attention. When we speak of consciousness thus we imply that it is a complex whole in which certain parts are so

[1] As late instances of this specific recognition I may refer to the fact that Pierre Janet treats of consciousness as a coordinated system of elements, a system capable of disruption or "disordination"; its component elements existing in a more or less isolated condition as "sub-conscious" states. (Cf. *Philosophical Review*, xi. 6, p. 657.) Spiller in his *The Mind of Man* bases his whole study of our mental life on the conception of consciousness as systematized. This work was completed in draft before Spiller's work appeared; and the reader will perceive that my method, and my use of this conception, differ altogether from his.

of the coincident activities in each and every other part of the nervous system.

Sec. 11*a*. We thus speak of neural elements; and of the whole nervous system as made up of such elements; and we are liable to speak of these elements at times as though they were of the nature of the atoms of the physicist. But as a matter of fact we do not think of them as such; for we realize that they are not elements apart from the system, but that they are conditioned by the very fact that they are inherent parts of the system, and are not separable from the system, of which they form parts, without a total alteration of their nature.

In like manner we speak of elemental neural activities; but we realize that we are able to observe these so called elemental activities only in connection with the activities of the system,

emphatic that they stand apart, as it were, from the remainder; these parts being so related that in any given moment each special psychic emphasis affects in some measure the nature of each and every other part of the whole psychic system; the nature of any special psychic emphasis being at the same time influenced by the nature of each and all of the other psychic elements within the whole of consciousness as it exists in that moment.

Sec. 11*b*. We may thus also speak of psychic elements, and of consciousness as made up of such psychic elements: but we must realize that these are not elements apart from the conscious system, but that they are conditioned by the fact that they are inherent parts of this conscious system; and that they are not separable from the psychic system of which they form parts without a total alteration of their nature.

If then we speak of the recognition of elemental psychic states, we must realize that we are able to observe them only in relation to the psychic system as a whole, which is a unit so long as it

which acts as a unit so long as it is a system; and we thus see that the elemental parts of the nervous system are distinguished only because they are capable of becoming the centers of specially emphatic activity, within the system, which as a whole is more or less gradually affected by the emphatic activity appearing in the parts.

We can never conceive of a specially active neural element, as part and parcel of the system, without also conceiving of the related activities of the nervous system as a whole. The neural elements are not isolated atoms, but are inherent parts of the nervous system: the nervous system is not a mere aggregation of atoms, but it is what it is because it is formed of what we call neural elements, which under certain conditions may become the centers of emphasis of newly appearing activities within the system as a whole.

It thus appears that what we speak of as a special activity in a special part of the nervous system is really to be looked upon merely as an emphasis of activity in this part of the whole active system.

Sec. 12*a*. The nervous system of man is observed to be, not merely a system, but a vastly remains a conscious system; and that the elemental parts of the psychic system are capable of becoming the centers of special emphasis, within the psychic system, which as a whole is more or less gradually affected by the emphases appearing in the parts.

We can never conceive of the special emphasis of a psychic element, as part and parcel of the whole psychic system, without also implicating the other related parts of the psychic system, *i.e.* the rest of consciousness. The psychic elements are what they are, because they are inherent parts of the whole of consciousness; consciousness is what it is, because it is formed of what we call psychic elements, which under certain conditions may become the centers of emphasis of new forms appearing in the psychic system as a whole.

It thus appears that what we speak of as a special presentation is to be looked upon merely as a psychic emphasis in a special part of the whole active psychic system which we call consciousness.

Sec. 12*b*. Consciousness may be looked upon as a vastly complex system of minor psychic systems.

complex system of minor systems. The elements within any one of these minor systems are interrelated more closely than they are related to the elements of diverse minor systems.

The minor systems themselves are all related within the broad system as a whole: in some cases, however, the bond of relation is closer, in other cases it is less close. Certain of these minor systems are so closely related that the broad system seems mutilated when they are extirpated. Certain others (*e.g.* the sympathetic nervous system) are so loosely related to the nervous system taken as a whole that they seem to act in great measure independently of the whole broad system. We realize however that this independence cannot be complete. So long as any minor nervous system is inherently connected with, as part of, the broad general nervous system, neither it, nor any of its elements, can become the center of emphatic activities without the production of some effect in all other parts of the nervous system.

Sec. 13*a*. As each neural element must be supposed to be in some measure active so long as it is alive, the parts which are emphatically active at any Thus our aural presentations as such are systematized, as are also our ocular presentations as such; yet both are interrelated as parts of the whole system of consciousness.

Similar relations exist between the minor psychic systems and the broad system as a whole; relations which must also be more or less intimate. Certain of these minor psychic systems (*e.g.* the somatic sensations) are known to be so loosely related to the whole of consciousness that they seem to many to be in great measure uninfluential in the experience of daily life. Other minor psychic systems (*e.g.* those corresponding with the reflex actions) seem to bear no relation whatever to clear consciousness. This we are compelled however to view as an illusion. So long as any minor psychic system is inherently connected with, as part of, the broad system of consciousness, neither it, nor any of its elements, can become emphasized in any degree without the occurrence of some change in each and every part of the whole of consciousness of the moment.

Sec. 13*b*. Consciousness must thus be looked upon as a very complex system of psychic systems composed of psychic parts which may be diversely emphasized. At

moment must be small in number in comparison with the great mass of the system which is composed of parts which are unemphatically active. But this fact does not lead us to say that only those parts of the whole system are active in which the activities appear emphatic.[1] On the contrary, at each moment the whole complex nervous system, active in all its parts, must be viewed as acting as an unit, subject to variations of emphasis in its several parts.[2]

Sec. 14*a*. It is clear that an emphasis in the nervous activities at any chosen moment may appear to arise in any of an indefinitely large number of parts of the complex system; and as the nervous system is a complex system of minor systems, diverse neururgic emphases may appear in several minor systems at one and the same time.

any moment the part of consciousness which is thus emphatic is narrow in relation to the vast mass of consciousness which is not emphasized. The part of consciousness which is emphasized is what we usually speak of as the field of attention. But we are bound to assume the existence in consciousness, at each moment, of a vast body of unemphatic parts, which are not of the field of attention, and which make up what we may well call the field of inattention or subattentive consciousness.

Sec. 14*b*. Our experience shows us that these special emphases in consciousness, these special presentations, may arise in any of an indefinitely large number of parts of consciousness, if we may so speak. And as we have come to look upon consciousness as a complex system of minor psychic systems we shall not be surprised to find that we may experience what appear to be diverse noetic emphases, or partial presentations, in one and the same moment.

---

[1] Confer McDougall, *Mind*, N.S. 43. It matters not at what points in the whole nervous system these special emphases occur. The seat of these emphases may possibly be found to be in the "synapses" so called, *i.e.* at the points of juncture between connecting lines of nervous matter. But this will not lead us to deny that the parts of nervous substance in these connecting lines themselves are in each moment active.

[2] Prof. Loeb (*Physiology of the Brain*, p. 262) says; "In processes of association the cerebral hemispheres act as a whole, and not as a mosaic of a number of independent parts."

If we consider the active nervous system as a whole at any moment, we may speak of this whole as a "neururgic system," in which appears a vast complication of special emphases of greater or less degree. The condition of the neururgic system at any moment we may speak of as constituting a "neururgic pattern." The neururgic patterns of successive moments will alter as the centers of emphasis within the neururgic system of systems change in successive moments.

If we consider consciousness as a whole at any moment, we may speak of it as a "noetic system," in which appears a vast complication of special emphases of greater or less degree. The condition of the noetic system at any moment we may speak of as a "noetic pattern." The noetic patterns of successive moments will be found to alter as the centers of psychic emphasis within the noetic system of systems change in successive moments.

Sec. 15*a*. Because emphatic activities attract attention, we are of course not warranted in holding that the points of emphasis alone constitute the neururgic pattern of the moment; they could not appear as increments to the activity of the whole unemphatic mass unless this unemphatic mass existed as part of the whole condition of the neururgic system of the moment; and the nature of the neururgic pattern of any moment is determined as much by the body of unemphatic, as by the smaller number of emphatic, neural activities. *In considering the nature of any neururgic pattern we can never overlook the influence of the whole neururgic system, as apart from the neururgic*

Sec. 15*b*. Because these emphatic experiences are retained in reflection is of course no reason why we should hold that these points of emphasis alone constitute the noetic pattern of the moment; they could not appear as presentations to the whole unemphatic psychic mass, which we speak of as the field of inattention, were it not that this mass exists as part of the whole condition of the noetic system of the moment,—as part of the sum-total of the consciousness of the moment; and the nature of the noetic pattern within consciousness at any moment is determined as much by the broad field of inattention as it is by the narrow field of attention. *In considering the nature of any noetic pattern we can never overlook the*

emphases, in affecting the nature of these neururgic emphases.

Sec. 16*a*. Closer relations exist between certain nerve elements within the nervous system, than between certain others. When we describe the nervous system as a system of minor nervous systems we mean that in any group of nerve elements constituting a minor system, a closer relation exists between the elements within this group, than between any of them and any outside of the group. The elements hold together and act as individual parts within the broad system, in a measure as though they had an existence independent from the whole broad nervous system.

When a minor nerve system becomes emphatically active its activity will necessarily affect in some measure the whole neururgic pattern of the moment; but the degree and permanence of the effect produced in succeeding neururgic patterns, and the persistence of the neururgic emphasis due to this activity in the minor system, will depend altogether upon the nature of the neururgic relations existing in the whole system at the moment. Whether the minor nerve system is in close

influence of the whole noetic system, as apart from the noetic emphases, in affecting the nature of these noetic emphases.

Sec. 16*b*. When we describe consciousness as a system of minor psychic systems we mean that in any psychic grouping that forms a minor psychic system (*e.g.* sensations) closer relations exist between the elements within the group (*e.g.* light, heat, sound, etc.) than between any of them and any outside of the group (*e.g.* an emotion or concept). The elements as thus grouped appear to have as it were an independent existence, yet within and part of the whole psychic system which we call consciousness.

When a minor noetic system becomes emphatic it will necessarily affect in some measure the whole noetic pattern of the moment; but the degree and permanence of the effect produced in succeeding noetic patterns, and the persistence of the new noetic emphasis as such, will depend altogether upon the nature of the noetic conditions existing within consciousness at the moment. Whether the minor noetic system is in close relation, or not, with the mass of consciousness determines whether the noetic pattern

relation, or not, with the mass of the neururgic system determines whether the neururgic pattern in future moments will, or will not, be influenced by the special activity in the minor system. That is to say, it determines whether or not, the emphasis within the minor neururgic system is to persist as an emphasis within the whole neururgic system. If it does not, and if this minor system emphasis persists, then the minor neururgic system will be practically cut away from the neururgic system as a whole.

A minor nerve system may be in close relation with the mass of the whole complex system, and nevertheless whether the effect of the minor system's activity will be great or small in future moments depends upon whether the rhythm of activity in the minor system is, or is not, commensurable with that of the whole mass.

We here deal with *Neururgic Assimilation*. The whole neururgic system in any moment presents a special "physiological disposition" (Stout). Whether the newly arising activity is to become effectively emphatic, or not, depends upon whether it is, in future moments will, or will not, be influenced by the new noetic emphasis. In other words, it determines whether or not the emphasis within the minor noetic system is to persist as an emphasis within consciousness as a whole. If it does not it may in a sense persist as a psychic activity, but then it must be apart from the noetic system which we call consciousness.

A minor noetic system may be in close relation with consciousness as a whole, and nevertheless whether its effect upon consciousness will be great or small in future moments depends upon whether its rhythm of activity, if we may so speak, is, or is not, commensurable with that of the whole noetic mass. Thus the surface wound does not affect the consciousness of the fighting soldier; but gives him great pain when the battle is over.

We here deal with *Noetic Assimilation*. The whole noetic system in any moment presents a special "psychical disposition" (Stout). Whether or not the newly arising noetic emphasis is to persist depends upon whether it is, or is not assimilated by the

or is not, assimilated by the physiological disposition of the moment.

Sec. 17*a*. It thus appears that each emphasis of activity in a neural part will in some measure affect the activities of all related parts: and not only the degree of this effect, but also the rapidity of the spread of its influence, will depend upon the closeness of the relation between the part in which the emphasis appears, and the rest of the whole complex nervous mass.[1]

The activity of the part in which the emphasis appears is also affected by the activities of all the other parts of the system.

The result of this reciprocity is that the neururgic pattern must always tend to change in the direction of what we may "psychical disposition" of the moment. We are here dealing with what is often spoken of as the process of Apperception.

Sec. 17*b*. It thus appears that each special emphasis (or presentation) in attention must affect the whole of consciousness, not only that part which is within the confines of the field of attention, but also those parts which make up the field of inattention; and the degree of this effect, and the rapidity of the spread of its influence, will depend altogether upon the closeness of the relation between the part in which the emphasis appears and the rest of consciousness.

So also the part of consciousness which is of the field of attention must be affected by the parts of consciousness which are of the field of inattention.

The noetic pattern must thus always tend to lose its specific character. As the emphasis within the field of attention eventually

[1] Mr. George Henry Lewes (*The Physical Basis of Mind*, p. 284) uses the following illustration; "Imagine all the nerve centers to be a connected group of bells varying in size. Every agitation of the connecting wire will more or less agitate all the bells; but since some are heavier than others, and some of the cranks less movable, there will be many vibrations of the wire which will cause some bells to sound, others simply to oscillate without sounding, and others not sensibly to oscillate. Even some of the lighter bells will not ring if any external pressure arrests them; or if they are already ringing, the added impulse, not being rhythmically timed, will arrest ringing," etc., etc.

figuratively describe as a level surface; the emphasis eventually affecting, and being affected by, the whole mass of activities. Any special emphasis will thus tend to disappear, as it were, within the increased activity of the mass, unless the emphasis is continuously produced by direct stimulation from the environment: and this because the energy given out by the emphatic part has raised the grade of activity of the whole mass; the special part, as well as the mass, tending to gain a similar degree of activity, which results in the tendency to obliteration of the special emphasis as such.

Sec. 18*a*. Lack of stimuli from the environment will thus tend to result in a disappearance of all of the neururgic pattern: the neururgic system will tend to come to a dead level, if we may so speak. In a similar manner incapacity for action within the nervous system, due to toxic effects, or to weariness, (if this is not to be numbered with toxic effects,) or to malnutrition, may act to wipe out all semblance of a neururgic pattern, and to produce a "dead level" condition. It must be agreed however that while this "dead level" may be approximated to, it can never be reached while the human affects, and is affected by, that part of consciousness which is of the field of inattention, the result will be a tendency to a reduction of the emphasis within the field of attention, unless this emphasis is continuously produced by recurrent stimulation. We thus observe a constant tendency to the loss of certain elements of any presentation which appear in attention, and which are not due to distinct continuing stimulation from without themselves; and this because the emphatic elements have become absorbed, as it were, within the field of inattention.

Sec. 18*b*. Consciousness will thus require a constant ebullition of presentations due to action upon us from the environment if it is to retain a recognizable noetic pattern. And at times, even when these constant actions upon us from our environment occur, weariness, or intoxications of one kind or another, or malnutrition, may result in states in which the noetic pattern seems to disappear altogether;—in which there seems to be no field of attention, and naught but the field of inattention.

It must be agreed however that while such an appearance of total inattention may be approximated to, it can never be actually

nervous system is a living active thing affected by varied influences reaching it from the environment.

Sec. 19*a*. It is clear that accident, or the surgeon's knife, or disease, may result in the separation of the whole nervous system into separate parts, which are physically disconnected. Within the same body we will then have separate nervous systems, each of which will act as a unit and will express itself by appropriate actions.

But we may surmise also that certain minor nervous systems may attain to such relative grade of activity that they will for the time being throb as separate nervous systems, and become practically separated from the rest of the whole nervous system which is incapable at the moment of a similar grade of activity. Such a separation of parts of the whole nervous system we may describe as due to an incommensurability of the minor neururgic systems, and that of the rest of the major neururgic system taken as a whole.

Thus large masses of minor nervous systems may at times appear to drop away from the normal activity of the broad nervous system of systems taken reached in man while consciousness exists.

Sec. 19*b*. As the result of dissociation of broad psychic systems within an individual, diverse consciousnesses may exist in connection with the same human body, whether as the result of accident, or surgical operation, or disease: and although only one of these consciousnesses will normally be connected with the expressions of speech and the thoughts related thereto, the existence of the other consciousnesses cannot be denied. We may expect also to discover indications of the occasional separation of consciousnesses within the same human body, as the result of the attainment by one partial minor psychic system of a grade of emphasis which cannot for the moment be approached by the other parts of consciousness taken as a whole. Such a separation of parts of consciousness we may describe as due to an incommensurability between the grades of psychic activity of the minor psychic system, and that of the rest of the major psychic system taken as a whole.

Thus large parts of consciousness may at times seem to disappear from that which we call our own consciousness in which marked noetic patterns are developed;—viz.

as a whole; and upon occasion may appear to be again rejoined thereto.

Sec. 20*a*. If we look upon the activity of the nervous system as a whole it appears in any special moment as a unit—as a single pulse. If we consider it as existing through successive moments, then the successive emphases, however diverse be the parts in which they arise, will appear as a *continuum* of emphases: the emphasis of one moment shading off into the emphasis of the next moment.

the consciousness which expresses itself in speech: and upon occasion these lost parts may be expected to appear to be again rejoined to the consciousness which we call our own.

Sec. 20*b*. If we consider consciousness as a whole it appears in any special moment as a unit—as a single psychic pulse. If we consider it as existing through successive moments, then the successive emphases within consciousness which we call presentations will appear as a *continuum*, the emphasis (or presentation) of one moment shading off into the emphasis (or presentation) of the next moment; and this gives us the experience of what Dr. James Ward calls the "presentation continuum."

CHAPTER III

SELF-CONSCIOUSNESS AND THE SELF[1]

I

Sec. 1. In our first chapter we have described certain general characteristics of human consciousness as it appears in introspection; let us now consider the facts brought to view in the primary analysis quite objectively—*i.e.* as happening in the conscious life of other individuals than ourselves—and study the relation of these facts to the neururgic situations in those individuals' bodies.

Sec. 2. We have seen that when our friend examines the nature of his conscious states he always discovers what may be described as an emphasis in consciousness commonly called a presentation, which is contrasted with a vague and elusive something else of consciousness which we call his Self.

Beyond this we have seen that he often notes that out of this vague and elusive Self there appears to emerge a somewhat more explicit with which the self-same psychic emphasis also appears to stand in contrast, a somewhat which he commonly calls his self, but which upon reflection appears to be in itself a part of the presentation, and not the Self. It is what we speak of as the ego of self-consciousness.

[1] The substance of this chapter was presented in an article entitled *Consciousness, Self-Consciousness, and the Self*, published in *Mind*, N.S. January, 1901.

As we shall see more fully in Chapter XXII., it is unnecessary to present to one who knows his Lotze[1] and his James[2] any argument to show how thoroughly presentative this ego of self-consciousness is. We shall hereafter call it the empirical ego to distinguish it from the true Self.

When we say that it appears to emerge from the Self we mean to say that we think of it as of the same nature as the Self to which we are convinced it is a presentation, or a part of a complex presentation. And this would seem to be corroborated by the fact that often the same noetic emphasis which in one moment appears only in contrast with, as a presentation to, the Self; at another moment may appear as an object in contrast with the ego, both this object and the ego forming a complex dual presentation to the Self. For instance, a brilliant flash light seems to our friend to stand out sharp and distinct and individual, yet not to exhaust the consciousness of the moment in which it appears; there also exists for him the something more of consciousness which we call his Self. But presently my friend finds the presentation consisting of the flash light as before, and in addition thereto himself, his empirical ego, as related to the flash light. The flash light and the ego to which it is related together however do not exhaust his consciousness of the moment, but appear as a presentation of double emphasis, if we may so speak, to the non-presentable Self.

In other words his empirical ego appears to our friend to be fundamentally of the same nature as his Self, to be in fact a presentative *simulacrum* of his Self, which of course cannot be presented for the simple reason that it is that part of his consciousness to which his presentations are given.

[1] *Microcosmos*, vol. i. bks. iii. and v. [2] *Psychology*, i. ch. x.

II

Sec. 3. Let us now ask whether our hypothesis of neururgic and noetic correspondence helps us to comprehend the facts which thus seem given to us.

The nervous system, as we have so often said, is a vastly complex system of minor nervous systems of what we choose to speak of as nervous elements, all of which are in some measure active during life. These elements are so bound together that any emphatic activity in any one element must, directly or indirectly, influence the activities of all the rest of the elements of the system, and must in turn be influenced by them. It thus appears, as we have seen, that if the complex nerve system is considered as a whole the action of any element which is especially marked must be looked upon as an emphasis of activity within the whole system, rather than as an isolated activity.

It is easy to see that the activity of some particular nervous element, or of some narrowly limited minor system of elements, may be very markedly emphasized, and that it will then stand away in contrast from the whole great mass of unemphatic activities of the rest of the whole complex system ;—*i.e.* although it will be part and parcel of the whole active system, nevertheless it will appear as an increment of activity to the broad undifferentiable mass of activities of the whole complex. Such a case is represented in Fig. 3.

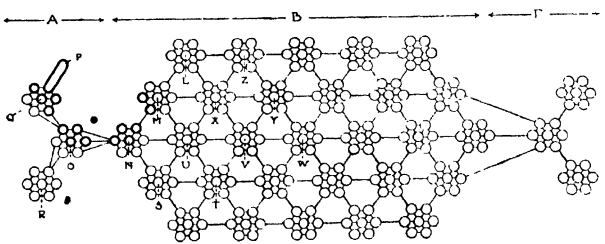

FIG. 3.

Here the immensely complex nervous system is represented in an artificially simplified manner, but sufficiently for our purpose. The groups of circles (L, M, N, O, etc.) represent minor nervous systems. The groups of minor systems, A, B, Γ, represent respectively (A) those which relate to stimuli reaching us from our environment; (Γ) those which relate to our reaction upon the environment; and (B) those which are concerned with the coordination of the activities of groups A and Γ. Q in group A represents a limited minor system of elements in which an emphatic activity (P) appears; and all the other interconnected circles taken together represent the great mass of unemphatic activities to which the emphatic activity in P appears as an increment.

Now, when we have a vivid sensational presentation, for instance, we know that the sensation corresponds with the emphatic activity of such a relatively narrowly limited part of a minor nervous system as is represented by P in Fig. 3, coupled with heightened activities in the nerve parts most directly connected with P; and, if our hypothesis of a thoroughgoing correspondence between neural activities and consciousness is correct, we should look for a something else of consciousness corresponding with the broad undifferentiable mass of unemphatic nervous activities in those parts of the whole system which are not thus emphatically active.

But as we have already seen such a vivid sensation in reflection does appear as a presentation to a something else of consciousness which we call the Self: and most naturally the hypothesis is suggested that the Self of any moment is nothing more nor less than the psychic correspondent of the broad mass of unemphatic nervous activities, existing within the whole system, which form a background against which the emphatic activities of the minor nervous systems stand in contrast.

Sec. 4. If this is a true explanation of the nature of the relation of ordinary non-reflective vivid presentations to the Self, it is easy to comprehend how presentations to the Self of a more complex nature may exist in correspondence with more complex increments of activity within the whole complex neururgic system ; so that we find no difficulty in explaining in such terms our most complicated presentations to the Self. The emphatic neururgic emphases fade off into the undifferentiable activities in the mass of the nervous system. The neururgic emphases correspond with the noetic emphases which we call presentations and which make up what we call the field of attention : the undifferentiable psychic mass, which is held to correspond with the undifferentiable neururgic mass, may well therefore be described as the *field of inattention* against which the field of attention is contrasted : and if it is true that what we usually describe as the Self is this undifferentiable psychic mass, then we may well describe *the Self as the field of inattention* to which the presentations within the field of attention accrue.

Sec. 5. It remains for us to consider the neururgic correspondence with our states of self-consciousness.

In Fig. 3 above we have represented the case where some elementary part, P, of a minor nervous system within the whole nervous system of a man is raised to a relatively high degree of activity, carrying with it heightened activity in certain very closely related parts. In such a case, under our hypothesis, we have in consciousness the general psychic mass, *i.e.* the Self, to which is added the forceful presentation P. Such is the psychic state when we receive a sharp blow, or when we hear a sudden noise, or see a flash of lightning.

But the elements of each of the minor nervous systems represented in the Fig. 3 by the groups L, M, N, O, etc., must be supposed to be more closely interrelated,—more closely bound together,—than the minor systems themselves

are, one with another: it is indeed only because of this close bond between the elements within the minor systems that these latter appear as special parts in the wider system. And it is easy to see that certain groups of these minor neural systems in their turn may be more closely bound together than other groups. Beyond this it is also easy to see that a vast array of these groups of minor systems may become closely bound together in a great minor system which might exist in a more or less stable form, but differentiable only as a mass, within the still broader whole system; and then we might under certain conditions find the activities in such a broad mass appearing as a unit as an increment to the activities in the vastly complex system as a whole; as per Fig. 4 below.

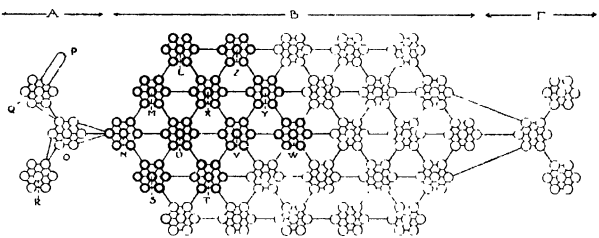

FIG. 4.

And at times we might even find what we may call a secondary increment of activity within some elementary part of this broad mass itself, and contrasted with it: this increment, and the broad mass together standing out in contrast with the activities of the vastly complex system taken as a whole.

This situation may be represented by Fig. 5 below:

In such a case as that depicted in Fig. 4 the noetic situation which corresponds with the neururgic situation thus represented would, under the hypothesis here presented,

or firm. By 1572 altogether about £100,000 had been invested in them in London, where they had their headquarters, unlike the old companies, which were seated abroad. Besides the Russia Company and a mining company which will be mentioned later, the trade to Africa had made use of the joint-stock device. In the fifteen-fifties there had been voyages to the west coast, in which Queen Elizabeth participated, on a rudimentary joint-stock principle. Except for this they would not be worth mentioning in an economic history, for they were on a very small scale; and the same may be said of the momentous adventure of Sir John Hawkins, the first English slave-trader, who in 1562 seized 300 negroes and sold them in the West Indies. In 1572 there was no longer any trade with Africa: for the time being this rash enterprise had extinguished the trade by arousing the hostility of Spain.

Now that Englishmen had traded direct to Russia, Persia, Africa, and the West Indies, they thought of freeing themselves from their dependence on the Low Countries. One of them had written in 1550:

> This realm hath three commodities, wool, tin and lead,
> Which being wrought within the realm each man might get his bread.

When he wrote this, in all probability much more of the wool was wrought within the realm than forty years earlier, and by 1572 this was certainly the case. Four-fifths of our exports still came from the sheep's backs; but a greater proportion now went in the form of unfinished cloth, and a smaller proportion as raw wool. To Persia even dyed and finished cloth was sent, though in very small quantities. There was another change, more important at this stage than the

comprehension of the general nature of consciousness, and especially of the experience of self-consciousness.

III

Sec. 6. Such an hypothesis as that above presented may well appear to the reader to be too far removed from the possibility of verification to be conclusive. Nevertheless if we consider its implications we find them helpful in comprehending the nature of consciousness as it appears in reflection.

In the first place we find the study of this hypothesis emphasizing the importance of the fact that consciousness is a vastly complex system of minor psychic systems; and that the presentations in attention are mere emphases in parts of this very complex psychic system. This means that in each moment of our conscious life there exists, beyond the field of attention, a broad field of inattention, to which the presentations within attention accrue. This broad field of inattention, under this hypothesis, is identical with the Self of the moment's experience, which we find ourselves compelled always to assume as a vague background, in and of consciousness, against which presentations stand out more or less clearly in attention.

If this is true, then it appears that we are forced to the important conclusion that as the field of attention is not diverse from, but is merely an emphasized item of, the field of inattention; so the Self must be fundamentally of the same general nature as the presentations to the Self.

Furthermore it appears, under this hypothesis, that if any broad minor psychic system, within the whole of consciousness, exists as very thoroughly integrated within the whole vastly complex psychic system, it must be a simulacrum of this whole system which we call consciousness; as the darker portions in Fig. 5 taken by themselves form a simulacrum

of the whole of Fig. 3. The empirical ego of self-consciousness and its object together are under this view given as an emphasis of such a very thoroughly integrated broad minor psychic system. Here the object in the self-conscious state appears as fundamentally of the same nature as, and as a simulacrum of the presentation to the Self; and we are led thus to see how it happens that the ego of self-consciousness is appreciated as fundamentally of the same general nature as, and as a simulacrum of, the Self to which presentations are given.

It follows then that the Self must be related to its presentations fundamentally in the same way that the empirical ego is related to its objects in our self-conscious states:—that the reciprocal reaction, if we may so speak, which we observe between the empirical ego and its objects, must be paralleled by a reciprocal reaction between the Self and its presentations, whether this presentation be one in which self-consciousness is not involved (*i.e.* where no part of the presentation appears as an empirical ego), or one where self-consciousness is involved (*i.e.* where the presentation consists of an empirical ego and also of an object contrasted with it).

We thus see also that the reciprocal reaction between the Self and the presentations to this Self must always be implicit: we can never get rid of the effect of the whole mass of the system upon the presentation, nor can the presentation ever fail to affect the nature of the whole mass of the system apart from the presentation, *i.e.* the Self. When therefore a broad minor psychic system, *e.g.* the empirical ego, is presented to the Self, then in the nature and efficiency of the empirical ego, which is a simulacrum of the Self, as it appears in attention, the nature and efficiency of the non-presentable Self become explicit. In our analysis of presentations which is to follow in the second book, we must therefore be prepared always to observe the reciprocal reaction of the Self and of the presentation to the Self, which

when explicit will appear as the reciprocal reaction of the empirical ego and of the objects related to this empirical ego.

This ever present reaction of the Self upon its presentations, when it becomes explicit in the reaction of the empirical ego upon its object, is the most important exemplification of what we speak of as conation or will. It appears therefore that this reaction of the Self in conation or will is implicit in all of our conscious states. If in the course of these studies we find evidence of such reciprocal reaction between the Self and the presentations to it, we shall have an important verification of the theoretical position here presented.

It thus appears also that the nature of the non-presentable Self, and of its efficiency in relation to presentations in general, may be judged from a study of the nature of the empirical ego and of its efficiency in relation to the objects which are contrasted with it. The study of this nature of the Self we shall therefore take up in Book III., after, in Book II., we have made an analysis of the nature of presentations as they appear in attention, in both non-self-conscious, and self-conscious states.

Sec. 7. Some reader may here tell us that we cannot too readily assume that consciousness in our ordinary non-reflective moments is of the same nature as consciousness in moments of our reflective life. But if the views above presented are correct it appears that the nature of our non-reflective conscious states may, as a matter of fact, be judged from our study of the nature of the relation of the objects related to the empirical ego, and of presentations to the Self where no self-consciousness is involved. We realize that what appear at times as objects (*e.g.* sensations) contrasted with the empirical ego of self-consciousness, may at other times appear as mere presentations in non-self-conscious states where there is no recognition of an ego to which the

sensations are given. So we may judge that in non-reflective moments, consciousness may well appear to consist of a mere series of presentations. And we may further assume that at times there may be so complete a lack of emphasis in consciousness that the non-reflective state may consist practically of the whole of the psychic system : then consciousness will consist of naught but the vastly complex and undifferentiable mass which we call the Self. Presentation and Self will then fuse into one in the consciousness of the moment in which a field of attention fails to stand over against a field of inattention.

CHAPTER IV

THE DISPARATENESS OF NOETIC EMPHASES OR PRESENTATIONS

I

Sec. 1. TURNING now from the study of the Self, and of its supposed simulacrum the empirical ego, let us consider the general nature of the presentations to the Self.

All men in every day speech refer to various types of presentations; *e.g.* sensations, emotions, thoughts, etc., which we may describe as disparate mental states, and which the plain man, if we may judge by his language, thinks of somewhat as though they were psychic atoms, as it were, definitely separable from one another.

Sufficient explanation of this view, which was developed by the atomistic psychologists of the early association school, is doubtless found in the fact that we usually note the disparateness in the process of comparison of successive presentations; and there we really deal with revivals of states the originals of which are appreciated as having been separated from one another by the fact that they existed in clearly distinct moments.

But if we consider the matter with a little care we perceive that we discover very numerous cases where this disparateness seems to appear at one and the same instant. As I write, the presentation of the moment involves certain

sensational elements of taste connected with the fact that I have lately eaten some fruit, and also certain thought elements which are as far as possible removed in character from these sensational taste elements. It might be held that this effect is due to the rapidity of the flow of presentations; that the taste of the fruit and the thoughts are really successive presentations, and not parts of a single complex presentation. But even if this claim were valid it is perfectly clear, in any event, that in the very usual process of comparison, which yields the notion of the disparateness we are here discussing, there exists a doubleness, and an opposition, within the very presentation of the moment of comparison. We cannot grasp the fact that a sensation is diverse from a thought unless we have both sensation and thought, or their "images" which we conceive to be very like them, both at once in one presentation.

In order that we may gain a clear notion of the meaning of this disparateness of psychic forms let us for a moment consider what are the conditions in the neururgic situation corresponding with our appreciation of this presentative disparateness.

Sec. 2. We have seen that the action of the whole nervous system in any one moment must be conceived of as one pulse of activity, an activity which however is variously evidenced in the several parts of the highly complex system, so that in any given moment the conditions of activity in the whole nervous system may be described as displaying a specific *neururgic pattern*. The nature of this neururgic pattern at any moment is determined by the degree of emphasis of certain activities in certain special parts of the whole vastly complex nervous system; and therefore what we often for convenience speak of as activities in special parts of the nervous system, as though they stood in contrast with non-activities in other parts, should properly be described, as we have seen, merely as

emphases of activity in certain special parts of this vastly complex system of activities.

But it will be agreed that these neururgic emphases are due, to a great extent at least, either to forces of varied nature which act as stimuli to the system from without itself in many different parts at the same time, or to resultants of such stimuli in times past. And beyond this, these stimuli which produce these emphases in diverse parts of the neururgic system vary in kind and in degree from moment to moment. It thus appears that each observable emphasis of activity in any special part of so vastly complex a system as the human nervous system, must necessarily be a complex emphasis,—an emphasis in which minor differences of emphasis appear.

The very facts then which warrant our description of the condition of the nervous system at any moment as a specific neururgic pattern, involve the existence of a complexity of minor neururgic emphases within the major neururgic emphasis which gives the special character to the specific neururgic pattern: and this being true it seems clear that successive neururgic patterns when considered as wholes, and compared, must appear to be disparate if the major and minor neururgic emphases which give them their specific character occur in diverse parts of the nervous system, even though this disparateness be due merely to a shifting of position, so to speak, of emphases within the whole neururgic system.

Sec. 3. If it is true that a thoroughgoing neururgic and noetic correspondence prevails, then as we have seen we may picture the condition of consciousness at any moment as displaying a specific *noetic pattern*; and evidently the very facts which warrant this descriptive term, involve the existence of a complexity of minor noetic emphases within the major noetic emphases which gives the special character to the noetic pattern of any given moment. This being

CHAPTER III

FORCES OF CHANGE, TO 1572

THIS state of things had been brought about by great interconnected changes which no one foresaw in 1496. These changes liberated and intensified the two innovating tendencies already at work, mercantile enterprise and the growth of money economy. The first of them, one which originated outside England, was the price revolution. From about the middle of the sixteenth century, English people, especially poor people, began to complain that things were getting dearer, and these complaints went on and grew louder from then until the time we are speaking of. Food was costing more. The sharpest rise of all was in the prices of cattle and horses. In the sixteenth century agricultural prices were always, as the prices of industrial raw materials, especially metals, are now, the most sensitive to economic change. For about twenty years the politicians and the writers who offered remedies for the social problem were puzzled. This was unlike the familiar periods of high prices, for this time there was no exceptional shortage of goods; there was, as some of them wrote, dearth (or dearness) without scarcity. A year or two before our date, however, a solution of the mystery found its way to England in the writings of the famous French jurist Jean Bodin, who had been considering the same phenomenon in France, where it was even more pronounced. Bodin was not the first to invent this solution, but he stated it so well that it was at once accepted in England and

other presentations, and that in certain cases they are in a sense *simulacra* of these other forms of presentation. This view of course stands in opposition to the doctrines upheld by the association psychologists of the past generation, and cannot be adopted without a more careful examination to which we return later.

III

Sec. 5. Our conception of consciousness as a system of minor psychic systems of different grades of complexity, and differently integrated, enables us to see how we are able to group disparate presentations in various ways according as they are more or less closely related, notwithstanding the fact that each noetic emphasis or presentation is *sui generis*. We have made such a broad grouping in Chapter II. Sec. 4 (confer Fig. 3, Chapter III. Sec. 3) into (A) presentations which relate to the stimulation of the organism from its environment, viz. our sensations; (Γ) presentations which relate to the reaction of the organism upon its environment, viz. our instinct experiences and emotions, etc., and (B) presentations which are coordinative of classes (A) and (Γ), viz. our images, ideas, thoughts, etc. We have seen also that we find minor groups within each of these larger groups; in the realm of sensations (A), light, sound, etc.; in the realm of reaction (Γ), the numerous variety of our instinct experiences and emotions, fear, love, etc.; and in the coordinative realm (B), the very broad variety of images, ideas and thoughts. To these we may add the important sub-class under (B); presentations which we may describe as inhibitive states; desire, impulse, etc.: and the sub-class under (Γ); presentations which relate to the resolution of these inhibitions; viz. our volitional acts: and a further sub-class under (B); presentations which are usually described as "feelings of relation," but which I prefer to call senses of relation.

Prices rose so high in Spain that foreigners could bring home fantastic profits by selling there, until the price-level in their own countries rose to equal that of Spain. The process was retarded in some places by accidental circumstances, such as wars against Spain; and, of course, the more of the new silver a country could absorb by extending the sphere of money economy, the less its price-level rose. But, with many delays and complications, it did come about that England, France, the Low Countries, Italy, Poland and Germany sold their goods to Spain, and then to one another, for greatly increased quantities of the precious metals, and this led to a general rise in prices, though this rise was smaller and more gradual in the other countries than in Spain.

In modern language this influx of money was a long-continued process of inflation. It therefore had profound effects in economic life. It was favourable to all those who had to make payments over a period of time in fixed sums of money, and unfavourable to those who had to accept these payments. The tenant could get more for his corn in the market, and so it cost him less in labour to earn his rent; but the landlord could buy less with his rents when they came in. The merchant could get more for his cargo, and so it cost him less to find the interest for the sleeping partners who financed his voyage, but their money was worth less to them when they got it. Thus debtors were favoured at the expense of creditors; traders came off better than landowners; agricultural producers were strongly attracted by the profits of the market. When they spent their profits, to be sure they had to pay higher prices for everything they bought; but as prices still went on rising they could make good their

There are an innumerable number of such relational presentations which we all recognize: but we must go far beyond the recognition of such very distinct senses of relation as those just mentioned, and acknowledge that many others exist which we do not think of so clearly. As Prof. James says;[1] "we ought to say a feeling of *and*, a feeling of *if*, a feeling of *but*, and a feeling of *by*; quite as readily as we say a feeling of *blue*, or a feeling of *cold*."

Of these senses of relation, it is to be noted that they appear in connection with, as bound up with, the most diverse of other presentations. Such diverse objects as brooms and mountains may be spoken of as unequal in size. A bull terrier may be thought of as between two masses of color on a rug; or again as between a bull dog and a terrier. The "feeling of *if*" may exist in countless connections. But for all that, these senses of relation are just as much special presentations as are cats or colors, or emotions, or thoughts. They are special noetic forms which may, and can only, appear in connection with other, and sometimes many other, presentations.

To these senses of relation we shall refer frequently in what follows.

[1] *Psychology*, i. 245.

CHAPTER V

THE MUTABILITY OF NOETIC EMPHASES OR PRESENTATIONS

I. Each Noetic Pattern and each Noetic Emphasis is New and Unique

Sec. 1. We have laid aside the common notion of the existence of masses of atom-like diverse presentations, and have explained our experience of the disparateness of presentations in terms of the emphasis of disparate parts within the whole of consciousness. But in so doing we must not allow ourselves to cling to the notion that these disparate parts within this whole of consciousness are fixed and immutable in their nature. On the contrary, it is important to note that in their very nature the presentation to each Self in each moment is necessarily new and unique, and part of a new and unique noetic pattern. This doctrine is one which will not be unfamiliar to students of modern psychology, but in the opinion of the writer the implications of the doctrine in relation to psychology and philosophy are not usually thoroughly appreciated.

Mr. Shadworth H. Hodgson in his *Metaphysic of Experience*[1] tells us that in his view "it is a mere common blunder, caused by looseness of common sense thought, to suppose that one and the same experience is ever recalled or repeated. A numerical identity of two experiences, one

[1] Vol. i. p. 166.

past and the other present, is a self-contradiction : an event of any kind once gone is gone for ever. But neither is their identity in point of content complete. Similarity of content between two or more experiences, so great as to render them indistinguishable except by the place, which, owing to their context, they are perceived to occupy in a single series of experiences, is the utmost that can be meant by calling them identical."

Prof. Wm. James also in his *Psychology*[1] tells us that "no state once gone, can recur and be identical with what it was before." "Every thought we have of a given fact is, strictly speaking, unique, and only bears a resemblance of kind with our other thoughts of the same fact. When the identical fact recurs, we *must* think of it in a fresh manner, see it under a somewhat different angle, apprehend it in different relations from those in which it last appeared."

If the positions taken in previous chapters are to be maintained, it will be evident to the reader that, if we accept this position in relation to presentations to the Self, we must go even further and say that each moment of the totality of conscious experience, is a new totality of conscious experience : *i.e.* that both the Self and the presentations to the Self of each moment are respectively a new Self, and a new presentation. It will be best, however, in this connection to limit our considerations to this characteristic as it is displayed in presentations, which alone are observable in reflection; reserving for Book III. a study of the implications of this doctrine in relation to the Self.

Sec. 2. Turning from introspection, we may consider for a moment the objective evidence in favor of this view, in connection with the hypothesis of correspondence between neural and mental phases which we are here assuming. Under this hypothesis each elementary psychic activity, as it is unusually spoken of,—each partial emphasis in the whole

[1] Vol. i. p. 230 ff. Confer also Royce, *Outlines of Psychology*, p. 199.

pulse of the psychic activity of the moment,—corresponds with a like elemental neural activity,—a like partial emphasis,—in the whole pulse of neural activity of the self-same moment. The question before us here is whether we can conceive of any two successive pulses of neural activity in the same organism as ever being exactly reduplicated, and to that question I think we are compelled to give a negative answer: an answer which is of importance because, if the hypothesis of neururgic and noetic correspondence is warranted, then it must be that each presentation in each moment must be a new and unique presentation.

Even within inorganic matter of a relative simplicity of constitution it is very difficult for us to conceive of exact recurrences of form and conditions in successive moments: and as a matter of fact we usually tacitly agree that each bit of inorganic matter is necessarily really a different bit of matter, and not the same, before and after it has received and has reacted to a physical impulse of any kind from its environment. It is possible for the physicist who assumes the indestructibility of physical atoms to hold that a given atom, or a given molecule formed of atoms, may in two different moments be one and the same in all respects and under all conditions; although it is to be noted that he is unable to prove his assertion empirically, and is somewhat hesitant now-a-days in his defense of the validity of this conception. But as the constitution of inorganic matter for the moment under consideration becomes more and more complex, the return to its original condition after a reaction of any kind becomes more and more unlikely; for the reason that the primary reaction then involves a readjustment of many relations; and a return to its original condition involves a physical impulse, or series of impulses, which shall restore all of these many relations at once. Thus the evaporation of water from a body of sand leaves it dry, and free to be blown by the wind out of its original position;

and the shifting sand may divert the course of some little streamlet, which in its turn may cause many changes in the surface of the ground. To replace all of these changed parts of the comparatively simple inorganic masses which are here considered would evidently be impossible without a very complex set of conditions which are not likely to occur in conjunction.

When we turn to the consideration of living matter we find the conditions of complexity immensely increased : and the nervous system of man is a kind of living matter of an extraordinarily complex nature, and with its parts bound together, as we have seen, in a system of immensely complex systems. In such a piece of living matter any special reaction in any part, however small it be, to any physical impulse whatever, must disturb an immense number of relations which can only be restored by a very special set of physical impulses bearing an inherent relation of enormous complexity; and the probability of the appearance of such a special set of physical impulses is evidently so exceedingly small that it may be overlooked.

Sec. 3. But here it must be observed that the very characteristic that attracts our attention in relation to living matter in comparison with non-living matter is this; that while on the one hand complex inorganic masses after reaction to a physical impulse do not often even appear to regain their original form, on the other hand complex organic masses after reaction to a physical impulse do seem to regain the form which appeared before the reaction, and this by processes which seem to be inherent in themselves, and not determined by the occurrence of new impulses in their environment.

But in consideration of the facts above presented we find it very difficult to see how this recovery of its first condition can really be entirely complete, and we are led to suspect that although the nature of living matter is such that it itself

tends to produce, after a reaction, what appears to us to be a recurrence of its condition as it existed before the reaction, nevertheless this recurrence can never be exact; and that therefore this appearance of identity must necessarily be due to an illusion determined by our weakness of observation, or to carelessness of thought. The evidence that recovery of its first condition after a reaction is never exactly complete lies in the fact that living matter, more or less gradually, but none the less surely, changes in form and in structure, as is seen in the fact that it grows old and finally dies. We are led therefore to assume that some slight, even if it be unobservable, change is made in the structure of each bit of living matter, and in the relation of its parts, in connection with each of its reactions; so that in reality after each reaction it no longer remains the same bit of living matter, capable of becoming what it was before its reaction; but rather that after each reaction, however slight, it becomes a new bit of living matter.[1]

If this is true of organic matter in general it must hold especially in reference to the highly complex nervous system as a whole.[2]

[1] According to the modern doctrines of evolution, as expressed by its most noted expositors, heredity, which is supposed to involve the recurrence of fixed forms in successive generations, has been assumed to be fundamental, while variation has been assumed to be occasional and due to special adaptation to environmental influences. This assumption has not until lately been subjected to critical examination, because it has been unimportant to the development of the evolutionary theory whether it is true, or whether it is more correct to assume that variation is fundamental, and that what we call recurrence of fixed forms through heredity is an appearance due to the adaptation to relatively stable environmental influences.

It is interesting in this connection to note that the latter assumption is now being upheld by certain careful students of organic development. Confer Prof. H. S. Wilson, *Science*, July 16th, 1897.

[2] Confer in this connection James, *Psychology*, i. p. 234. In the organic systems of the highest grades of complexity this change of the organism as a whole is marked probably by a replacement of cell parts which have become

Sec. 4. Now if all this be true, then it must be that each neururgic pattern and each neururgic emphasis must be new and unique. Then also it is evidently true, as we have already seen is acknowledged by those who carefully record their introspective experiences, that each corresponding noetic pattern is in itself a new noetic pattern; notwithstanding that the differences between successive noetic patterns in the same person may altogether escape our observation. And beyond this we must hold that each psychic emphasis within each noetic pattern must be new and unique, although there will be many cases where successive emphases as reviewed in reflection will appear to be unchanged.[1]

senile by others which are new-born, if we may so speak, and therefore more vigorous, and which may take up the work which the dying cells are laying down. There is evidence, which is seen in all complex organisms taken as wholes, that these new cells do come into being in the process of growth, and that they do die in the process of senile decay. That this process does go on in a general way during the life of the organism as a whole seems to be evidenced in the observable repair of the so-called vulgar tissues, and of the superficial parts of the body; and it probably could be traced, had we proper means of observation, in the more delicate cell parts of the nervous system in which we are here especially interested. This latter point is however problematical.

Under such an hypothesis of substitution it appears at first sight that we might conceive of readjustment which would enable the complex organic system to retain a structure capable of reacting again to a stimulus exactly as it did after the primary reaction, so that it could not then be said that in all cases the system at the time of each reaction was structurally a new system. But even this supposition does not prove to suffice one who would make such a claim; for it must be remembered that each new-born cell is a cell of a longer line of inheritance than those from which it derives its life; and that the influences which give it its special structure must therefore in some indefinitely small measure differ from those which have influenced those cells from which it is derived.

[1] For instance; each of the general qualities of which we speak at length in Book II., when appreciated as such, involves the appearance of a specific psychic emphasis, and this can never be appreciated in reflection as changing

Sec. 5. It is well here to note that although each presentation *as experienced* is a new and unique presentation, nevertheless it is what it is because there were others before it; the noetic pattern of any moment is what we may speak of as the development of the previously existing noetic pattern, as this is modified, not only by the natural failure of partial emphases within the earlier total emphasis within consciousness as it then existed, but also by newly accruing partial emphases. It would thus appear that each partial emphasis within the total complex emphasis which we describe as the presentation of any special moment must have its resultant in the total complex presentation of the next moment. This turns our attention to another point.

Sec. 6. We are evidently dealing here with what is commonly called *retentiveness* which as Dr. Ward says[1] is both a biological and a psychological fact.

If we suppose the existence of an isolated living neural element we may think of it as being aroused to a higher degree of activity by some action upon it from its environment. In the fact that it reacts it becomes in some measure modified in form, and this modification involves its becoming in reality a type of neural element different from that which received the impulse from its environment. In this respect our neural element is like all other physical objects; and this fact involves what may be described broadly as neural retentiveness.

from moment to moment: intensity and pleasure for instance *as intensity* and *as pleasure* always appear to be respectively the same. Nevertheless we must hold that even these general qualities are never fully and absolutely the same in successive moments, and that they change their character very gradually during life as it developes. What we mean by speaking of them as general qualities is not that they are identically the same when appreciated in connection with diverse successive more complex presentations, but that in any given moment they might be appreciated in connection with any given presentation were the proper conditions fulfilled.

[1] Article "Psychology," *Encyclopedia Britannica*, p. 47.

But this retentiveness gains a new significance when this neural element becomes one of a large number of elements bound together in a system. Then the retentiveness of the element is liable to be masked by broader activities due to the complexity of the system of which it is a subordinate part. The system as a whole reacts upon the element as thus modified, and this is not unlikely at times to reduce the import of this modification of the element. The neururgic pattern of the whole system, of the moment in question, may be so effective that we may lose sight of the modification of the element; and in fact the element thus modified may actually be cut out of the great system by the fact that its modification is incompatible with what appears as a persistent form of the neururgic pattern.

It is only because this retentiveness is masked by the very complexity of the activities in the system as a whole that we come to look upon it as a special characteristic of living matter in general, and of nervous matter in particular, that after a reaction which involves a change of form it appears often to regain the form which existed before the change, so that it apparently again becomes capable of reacting exactly as it reacted before.

Sec. 7. This fact that retentiveness is a general characteristic of nervous matter, which is easy to accept on its physiological side, gains great importance when we consider its psychical correspondent. For we are led thus to see that each modification of any individual consciousness must leave a permanent effect upon the whole psychic system which can never be obliterated, and which must effect all future forms which are given in the individual's consciousness. Not only will the elementary noetic forms as such be thus changed, but complex systemic changes will occur which will alter the nature of the whole "psychical disposition."

This fact again is masked by the complexity of the

whole conscious system. Noetic patterns which appear today will seem to recur again at later times; but here again we are evidently led astray by an illusion. The second noetic pattern may be what we in practical life call "just the same as" the first one; but those who have followed our argument above will realize that such cannot actually be the case. The fact that habitual exercise involves gradual changes in the nature of the related presentations itself suffices to show that the recurrence cannot involve the repetition of exactly the same presentation.[1]

II. Likeness, Unlikeness, and Comparison.

Sec. 8. But it will occur to some reader that this view that each moment's presentation is new and unique seems on its face inconsistent with that form of introspection which leads us to speak of certain successive presentations as more or less unlike, as more or less alike, or even as exactly the same. Let us enquire therefore as to the nature of this sense of likeness, which when markedly developed, leads us to assert this sameness.

When we consider with care the marked distinctions which are noted in the nature of our presentations it becomes clear that what we know as this disparateness

[1] Dr. James Ward says on the page cited above "the whole field of consciousness would thus, like a continually growing picture, increase indefinitely in complexity of pattern; the earlier presentations not disappearing, like the waves of yesterday in the calm of today, but rather lasting on, like old scars that show beneath new ones." This illustration seems to me to be misleading. We may be able to picture to ourselves the old scar because our attention is given to certain aspects of the new scar. But in fact the old scar has disappeared in the formation of the new one. All that we can properly say is that the new scar would not be what it is but for the previous existence of the old scar.

between presentations is a matter of degree: some pairs of presentations appear more unlike than others; some so little unlike that while we distinguish them we nevertheless speak of them as alike. For instance we can just distinguish two shades of blue which we say are very much alike: it is easier to distinguish blue from red; easier still to distinguish sensations as a whole, from thoughts, etc., etc.

When we say that two objects or experiences are alike, or that they are different, we are engaged in the process which we describe as comparison; and in the act of comparison we are experiencing a special one of those "senses of relation" of which we have spoken at the close of the preceding chapter. When the "sense of difference" is distinctly marked, the "sense of likeness" is lacking: but as the "sense of difference" becomes less clear, the "sense of likeness" becomes more prominent.[1]

It is true that in our description of a case of comparison we usually speak as though, taking presentations A and B, we in some way brought them together, laid one on the other, and saw how far they corresponded and how far one over-lapped the other. But a little thought will of course convince us that nothing of the kind happens in consciousness when we compare. We generally assume that the process in comparison is that just described merely because in practical life we experience the "sense of likeness" or the "sense of difference" most distinctly when we do bring objects in the outer world together somewhat in the manner described above.

When we make a comparison between A and B we do not find in consciousness A, and then B; nor even A and

[1] Cf. James, *Psychology*, i. 493; also J. S. Mill (Note p. 54, vol. ii. of his edition of Jas. Mill's *Analysis*). Likeness and unlikeness are "properties of our simple feelings which must be postulated as ultimate, and which are inseparable from the feelings themselves."

B as separated items in mere conjunction; rather do we find a special form of complex presentation which involves both A and B, and also a special "sense of relation." In other words there occurs, in all cases of comparison, a certain complex form of noetic emphasis in which three secondary emphases appear. There is partial presentation A (say this yellow ball), and partial presentation B (say this orange); and partial presentation C which consists of this sense of likeness or difference, as determined by the existence of A and B, yet as diverse from each of them.

Sec. 9. It is true that a bond of identity must always exist between the two disparate partial presentations A and B which are compared; which if true means that A and B have common elements which are fused and which are themselves not disparate. Under such a view we would hold that when these identities are relatively very few we gain a "sense of difference"; and that when they are very many we gain a "sense of likeness."

The correctness of this view is vouched for if we examine a case of close likeness. If, for instance, I cut a strip of blue paper into two pieces and lay the two parts side by side I am likely to say that the color of each of the two pieces is exactly alike. Here evidently the presentation is one of double emphasis at least, for we recognize that there are two pieces of paper, the distinction between the two being due to differences of many kinds of which we need not speak. But the color blue seems identical in the two cases, or as much so as is ever possible in any case: and this is clearly due to the fact that similar sense terminals, and their related parts, are called into activity by the impression from each of the bits of blue paper. The basis of likeness is of course seldom so clearly marked as in the case above considered: for we often experience the sense of fairly close likeness in some cases where we cannot by any objective study, or by any introspection, discover the bond of unity in the identity.

Nevertheless the cases are so many where we can trace the bond of identity that we are warranted in claiming without hesitation that they always exist when a likeness is recognized.

Where the likeness is very marked we are likely to speak of the two separable elements of the presentation as identical and the same. But it is clear that we are thus using our terms most carelessly; for strictly speaking the two parts cannot be the same and identical unless complete fusion of the two parts into one takes place, in which case there could be no recognition of doubleness, but merely a higher emphasis of a presentation which would be regarded as single; and it therefore appears that what we recognize as sameness between two parts of a complex presentation must be really merely a very high degree of likeness.[1]

It is apparent therefore that this likeness may be of many grades, varying all the way from what we usually call sameness, to thoroughly close likeness, and less close likeness, and distinct unlikeness, until we reach what we call complete disparateness which yields the "sense of difference."

Sec. 10. Turning now to cases of marked disparateness, it seems clear that here also the presentations are always noetic emphases in which at least three minor emphases appear. In one and the same noetic pattern we have partial presentations A and B which are brought together and compared, and the mark of their comparison lies in the existence of another partial presentation C, which is a special "sense of relation," that leads us to say A and B are unlike.

It is not always evident however in such cases that a bond of identity exists between the two partial presentations A and B. Nevertheless, even where the two parts of the complex presentation which are compared appear most thoroughly disparate, it is evident that some bond of unity

[1] Confer Prof. Fullerton's *Sameness and Identity*, publications of the University of Pennsylvania, 1—April, 1890—especially pp. 64 ff.

must exist whatever it may be: for as Dr. Jas. Ward says[1] "absolute difference,—or disparateness as we may call it,—affords no ground for relations;" this becoming evident "when we consider (1) that, if we had only a plurality of absolutely different presentations, we should have no consciousness at all; and (2) that we can never compare, although we distinguish, *i.e.* recognize numerical difference, —where presentations seem absolutely or totally different."

How these bonds of identity may exist without being observable will become more comprehensible in connection with the discussions of the following division of this chapter, where we shall see that in all probability with each primary presentation there exists also a secondary presentation which is so overwhelmed by the primary presentation that the secondary presentation cannot be recognized in reflection. If such overlooked secondary presentations do exist with all primary presentations, then it is not difficult to imagine that the bond of identity between what appear in reflection to be utterly different partial presentations may at times lie, not in the primary presentations of the sensational-perceptual order as they often do, but in secondary presentations which are so overwhelmed that they are not observable in reflection.

Moreover in some cases the bond of identity may be surmised to lie in elementary parts that can never under any circumstances be held apart as distinct presentations in attention. For, as we have already seen, the nature of each psychic emphasis is determined partly by influences from within the field of inattention; and it may well be that in this field of inattention, which is always unobservable in reflection, may often lie the psychic elements which are identical to two parts of a complex presentation which are differentiated and compared. We may truly say then that the senses of likeness and of unlikeness are determined by the appreciation of identities of some degree: but it is to be

[1] Article "Psychology," *Encyclopedia Britannica*, p. 80.

especially noted that these identities exist *in the presentation of the moment of comparison*; a point which we shall find significant in what follows.

III. "Representation."

Sec. 11. In the discussions of the previous sections we have passed over one fact which seems at first sight to stand in opposition to the view that each presentation of each moment is a new and unique presentation; viz. the fact that we constantly speak, not only in every day conversation, but also in careful psychological discussion, of the existence of *re*presentations. This term is used as though it were a matter of common agreement that the mental states referred to are not in each case new presentations, but are duplications of former presentations of which we have an unchanged record;—a record with which we compare the so-called representations, and with which we in a measure identify them. Nor is this merely a matter of the careless use of words. It is clear that the founders and earlier expounders of the association psychology tacitly assumed such permanence of presentations, and that the Herbartians did so explicitly. If our contention is valid we are then called upon to explain the nature of these so-called representations as a certain type of new and unique presentations.

This question is *au fond* the same as that raised above where we noted that the associationists must be in error in holding that images and ideas are of a sensational type, being copies in some sense of real sensational experiences, or developments of such copies. It will be well then to begin our study of the special problem before us with a consideration of the general nature of images and ideas as these are distinguished from sensational impressions.

A. Of Primary and Secondary Presentations.

Sec. 12. James Mill opens the second chapter of his *Analysis* with the following words: "The sensations which we have through the medium of the senses exist only by the presence of the object and cease upon its absence." "When our sensations cease, by the absence of their objects —something remains," . . . "It is not the sensation, but something different from the sensation, yet more like the sensation than anything else can be; so like that you call it a copy, an image, of the sensation, sometimes a representation or trace of the sensation." "Another name for this is Idea." Mill thus clearly makes a broad distinction between Impressions or Sensations on the one hand, and Images or Ideas on the other; and he does not hesitate to state that the latter are in some sense copies of the former.

This is a view which has been held by many psychologists in the past without any thoroughly critical examination; and it is one which is subscribed to, although somewhat hesitatingly, by not a few psychologists to the present day. Hume it will be remembered held that the difference referred to was based upon a mere difference of intensity. And William James when writing his larger *Psychology* still clung to the same view,[1] although he acknowledged other,

[1] Cf. vol. ii. p. 72, last paragraph. Even Prof. G. F. Stout (*Manual of Psychology*, pp. 398 and 399) tells us that "we ought to hesitate before discarding a distinction generally accepted both by psychology and common sense." But he goes on to say; "On the other hand, if we accept it, we must mean by vividness something different from those degrees of sensible quality which may be equally present in the sensible quality as actually perceived and as mentally reproduced. What is this vividness? The answer seems to be contained in Hume's words. According to him the distinctive characteristic of percepts as compared with images is the force and liveliness with which they strike the mind. This 'striking the mind' is the essential point. At bottom the difference is a difference of quality, not of degree. Images do not strike the mind in the same way as percepts."

but for him less important, marks of difference. But it seems clear that we must abandon this view which in the opinion of Dr. Jas. Ward, was effectually disposed of by Reid and by Lotze, and which Dr. Ward[1] has himself certainly shown to be untenable. As Sully[2] says, "It is evident that this" (difference of intensity) "is not the whole of it; otherwise we should confuse weak and indistinct impressions (*e.g.* those of faint sound, or of indistinctly seen objects) with images": and this we do not find ourselves doing.

Sec. 13. It is not difficult to understand how this notion that images and ideas are copies of sensational impressions arose in the minds of the early observers of psychic states as such. The naïve observer cannot fail to notice certain cases where the psychic correspondents of direct impressions upon his body from without seem almost identical with psychic states which are clearly not correspondent with such direct impressions. If in one moment he experiences the vivid impression due to his looking at a star, and in a second moment closes his eyes, his experience in the second moment will usually be what Fechner would have called a "memory after image" of the star, or what modern psychologists[3] are wont to call a "primary-memory-image," which is evidently very like the psychic correspondent of the impression when his eyes were open.

Occasionally he notices what we call "after images"; and these, when he notes them, are closely related to the primary-memory-images just mentioned. Even when these after images are not noticed the immediately subsequent thoughts of these primary-memory-images are presentations which are evidently closely allied with the original primary-

[1] *Mind*, N.S. 12, pp. 517 ff. The reader is referred to the whole of this acute and instructive article.

[2] *Human Mind*, i. 283.

[3] Confer Ward, op. cit. p. 59. Jas. Sully, *Human Mind*, i. 279.

memory-images which seemed, when he experienced them, to be so nearly identical with the original vivid impressions. But such a "thought" is a presentation which he is wont to speak of as an "idea" rather than as an image; and when a similar thought recurs the next day it is clearly a very ordinary kind of "idea," yet is looked upon as practically the same as the "idea" of the day before, which was so closely connected with the original presentation coincident with an impression upon him from without that he then called it an image or copy of this original presentation.

While these considerations serve to explain how it happens that the naïve psychologist is led to think of what we call images and ideas as in a sense copies of original impressions, they also show that the basis of this conception is not gained as the result of very critical analysis, and that we ought not to content ourselves with the acceptance of such a view without full warrant.

Sec. 14. It appears to the writer that much light is thrown upon the nature of the presentations above described by the consideration of the nature of the coincident activities in the nervous system: and in this connection I shall ask the reader to recur to the diagram with which he has become by this time so familiar that I shall not be compelled to describe it in detail (see Chapter III.).

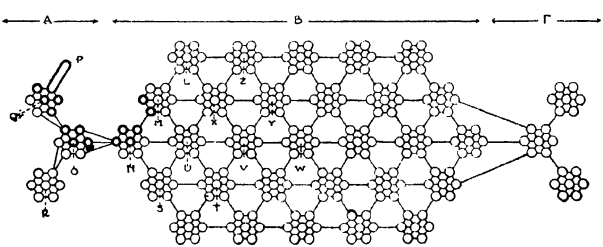

FIG. 6.

When our nervous system receives a stimulus from the environment through one of the sensory organs we may suppose the emphatic activities resulting from the stimulation to be symbolized by the darkened portions of the diagram (Fig. 6). These activities as a whole we may well call *primary reactions.* The principal emphasis of activities is seen in the parts directly acted upon by the environmental stimuli; but the main system is also involved to some extent in the total primary reaction.

Now it is quite conceivable that the *parts of the main system* thus emphatically active in connection with the primary action may, under other conditions, become emphatically active quite apart from any emphasis of activity in the parts directly related to the environment. In other words we ought to expect to experience conditions represented by Fig. 7 below, which we may well call *secondary reactions.*

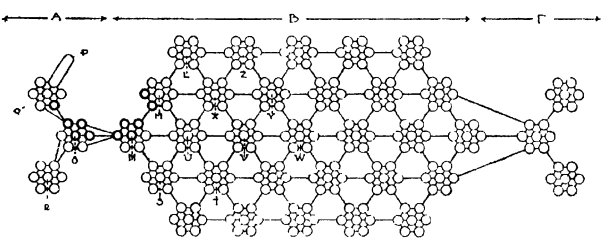

FIG. 7.

It is clear that it would be absurd for us to describe the neururgic pattern symbolized in Fig. 7 as a copy, or reproduction, of that symbolized in Fig. 6. *Primary reactions involve secondary reactions; but secondary reactions do not necessarily involve primary reactions.* In no sense can secondary reactions be said to be copies of primary reactions.

Sec. 15. When I perceive my friend before me, A may represent the emphatic coincident activities of my nervous

system by the darkened circles in Fig. 6. There is the heightened activity in the sensory minor system Q, and this heightened activity spreads away into heightened activities in the closely related parts of the nervous system. The presentation in this case we may well call a *primary presentation.*

But when I have today the so-called image of the face of my friend whom I saw yesterday, the emphatic activities in the nervous system may be symbolized by the darkened portions in Fig. 7. In such cases the presentations may therefore properly be called *secondary presentations.*[1] But it is clear from our observation above referred to that these images just mentioned do not differ fundamentally from presentations which arise as coincident with neural activities less closely related to the activities of the sense organs.

The term idea, now-a-days, is more usually applied to those secondary presentations which are very indirectly related to primary presentations; and, taking a step further, to those to which no primary presentation could ever have corresponded, to which we refer more particularly elsewhere. Mr. Bradley[2] for instance would appear ready to use the term idea to cover images, presentations which are recognizedly connected with images, and finally those which are not so connected; and it must not be forgotten that the earlier English psychologists employed the word idea in this same very broad way: *e.g.* Hobbes, and Browne, and Locke; the last of whom uses it "to stand for whatsoever is the object of the understanding when a man thinks."

[1] It is to be noted that Jas Mill speaks at times of "ideas" as "secondary feelings."

[2] Confer *Mind,* N.S. 40, p. 441. In opposition to the view "that in order to have something ideal which qualifies an object, we must have an image or images existing separate or at least separable from that object;" Mr. Bradley holds that "this identification of the ideal with images is surely a mistake."

These differences of usage are apt to produce confusion in one's mind, and for this reason I shall use the term secondary presentations to refer to all presentations which are not distinctly impressional. Secondary presentations may be of various grades of relationship to primary presentations; and the phrase may thus be extended to cover all of our images and ideas. "After images" are thus secondary presentations which are so closely related to primary presentations that they may perhaps be not improperly spoken of as impressional.[1]

With this meaning of the term secondary presentations before us, I wish here, in correspondence with what was said above in the paragraph following Fig. 7, to make the point that we clearly have no warrant for describing the noetic pattern symbolized in Fig. 7 as a copy, or reproduction, of that symbolized in Fig. 6. If we may judge from neurological evidence it would appear that *primary presentations necessarily involve secondary presentations; but that secondary presentations do not necessarily involve primary presentations.* In no sense, if this view is correct, can a secondary presentation be said to be a copy of a primary presentation.

Sec. 16. Before we consider the main question, let us examine the notion that a primary presentation always involves a secondary presentation.

If I look at my inkstand I have a primary presentation. If I close my eyes I have a secondary presentation (an "image of the inkstand") which if I keep my eyes closed is noted as losing, gradually from moment to moment, its

[1] As Dr. Stout speaks when in his *Analytical Psychology* (ii. p. 14) he says "under the influence of a large dose of haschish I find myself totally unable to distinguish between what I actually did and saw, and what I merely thought about" . . . "this shows that a revived impression is itself an impression, and not an idea." A secondary presentation of one type, classed as impressional, is thus placed in contradistinction to a secondary presentation of another type, classed as ideal.

vividness and clearness and definiteness, until finally it is no longer able to hold its own against other presentations which crowd in upon it.[1]

The primary presentation in this typical case may be represented by the symbol (1) $\overset{a}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$; in which the numbers symbolize the emphasized partial constituents of the complex primary presentation, and the marks $-\ _{\circ}^{\circ}\ ^{\times}$ symbolize relations of any determinate character, which exist between these partial constituents.

The secondary presentation which I experience when in the second moment I close my eyes may then be, in like manner, represented by the symbol (2) $\overset{a}{p}{}^{1-2-3^{\circ}4_{\circ}5}$; the small p being used in place of the large P to indicate the evident difference of emphasis, or vividness as we say, between the primary and secondary presentations; the numbers, and symbols of relation, being retained to indicate the evident likeness of general nature existing between the primary and the secondary presentations; the number 6 however being dropped, to indicate, what is equally evident, that some of the elements which appear in the primary presentations of one moment are lost in the corresponding secondary presentation of the following moment.

If I keep my eyes closed, this secondary presentation changes in clearness and definiteness, and apart from com-

[1] Under the hypotheses adopted we assume that there is a constant tendency on the part of the mass of the stimulated neural system to absorb, so to speak, the special activities due to a complex stimulus reaching it; a constant tendency, in other words, to alteration of what we may call the amplitude of activity in the system as a whole, so that the activity of the partial minor system stimulated will no longer stand so fully in contrast from that of the system as a whole.

In correspondence with these neural conditions we also assume a tendency on the part of the field of inattention to absorb the special presentation which appears as coincident with the special activity due to the reception of the stimulus; and thus gain an explanation of the fact here noted.

plications these changes appear to consist, largely at all events, in the dropping out of emphasis of some of the partial constituents of the secondary presentation symbolized by the numbers 1, 2, 3, 4, and 5, in the formula (2). If I keep my eyes closed for four successive units of time (which I speak of as moments) these images or secondary presentations which I experience may then be symbolized as follows:

(2) $\overset{a}{p}{}^{1-2-3^{c}4_{o}5}$,

(3) $\overset{a}{p}{}^{1-2-3^{c}4}$,

(4) $\overset{a}{p}{}^{1-2-3}$,

(5) $\overset{a}{p}{}^{1-2}$.

The five presentations of these five successive moments, as usually considered, may therefore thus be symbolized as follows:

(1) $\overset{a}{p}{}^{1-2-3^{c}4_{o}5^{\times}6}$; Eyes open.

(2) $\overset{a}{p}{}^{1-2-3^{c}4_{o}5}$; Eyes closed.

(3) $\overset{a}{p}{}^{1-2-3^{c}4}$; " "

(4) $\overset{a}{p}{}^{1-2-3}$; " "

(5) $\overset{a}{p}{}^{1-2}$. " "

This is what happens if after the first moment I close my eyes.[1] But suppose that in the fourth moment I had opened my eyes, then I should have had a quite different experience. For then instead of secondary presentation $\overset{a}{p}{}^{1-2-3}$ I should have found myself experiencing a new primary presentation, of say my inkstand before me, very similar to the primary presentation of moment (1) and

[1] For the sake of simplicity we here assume conditions which are seldom approximately, and never actually, realized; as we shall see below.

which we may symbolize thus: (4*a*) $\overset{\beta}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$; this symbol differing from (1) only in the use of β instead of α over the *P*.

In the fifth moment, if I had kept my eyes open, instead of $\overset{\alpha}{p}{}^{1-2}$ I should have experienced still another primary presentation of very similar form, which we may symbolize thus: (5*a*) $\overset{\gamma}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$.

In order to make this point clearer let us place these symbols in direct conjunction.

APPARENT SITUATIONS.

Moments.	Moments.
(1) Eyes *open*, $\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$;	(1*a*) Eyes *open*, $\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$;
(2) Eyes *closed*, $\overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5}$;	(2*a*) Eyes *closed*, $\overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5}$;
(3) Eyes *closed*, $\overset{\alpha}{p}{}^{1-2\cdot 3^{\circ}4}$;	(3*a*) Eyes *closed*, $\overset{\alpha}{p}{}^{1-2-3^{\circ}4}$;
(4) Eyes *closed*, $\overset{\alpha}{p}{}^{1-2-3}$;	(4*a*) Eyes *open*, $\overset{\beta}{P}{}^{1\ 2-3^{\circ}4_{\circ}5^{\times}6}$;
(3) Eyes *closed*, $\overset{\alpha}{p}{}^{1-2}$.	(5*a*) Eyes *open*, $\overset{\gamma}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$.

Now we usually assume that in what we have described as the fourth and fifth moments, if my eyes are closed, I experience images, or secondary presentations, as per symbols 4 and 5: but that if in those same moments I open my eyes I experience primary presentations as per symbols 4*a* and 5*a* instead of secondary presentations 4 and 5 which latter then cease to exist. But it appears highly improbable that such can really be the case, and much more probable that in the fourth moment, in case I open my eyes, I have primary presentations $\overset{\beta}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$; plus secondary presentation $\overset{\alpha}{p}{}^{1-2-3}$ which I would have experienced alone had I kept my eyes closed. In fact it would seem probable that our common assumption, that

when I open my eyes $\overset{\alpha}{p}{}^{1-2-3}$ becomes non-existent, is entirely due to an illusion resulting from the fact that in subsequent reflection the vividness of the primary presentation $\overset{\beta}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$ involves effects which entirely overwhelm the coincident secondary presentation $\overset{\alpha}{p}{}^{1-2-3}$, but do not obliterate it.

Sec. 17. If we conclude that this suggestion is warranted then we surely are led to go even further than this, and to assume that with the primary presentation of moment (1) there also existed a secondary presentation, which we however were unable to recognize in reflection because of the effects of the superior vividness of the primary presentation. In other words we must believe that in the first moment, with open eyes, we have not $\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$; but rather

$$\left\{\begin{matrix}\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\\ \overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\end{matrix}\right\}$$

and that in the second moment when we close our eyes we catch in $\overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5}$, not the development of $\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$, but rather the development of $\overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$, which was present with $\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$ in the first moment, but overwhelmed by the effects of the superior vividness of the latter. If this is true then, if we assume the consciousness to be devoid of any emphases previous to moment (1), the true symbols representing the presentations of the 5 successive moments noted in the right-hand column of "Apparent Situations" in Sec. 16 will be as follows:

(1) $\left\{\begin{matrix}\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\\ \overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\end{matrix}\right\}$; Eyes open.

(2) $\overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5}$; Eyes closed.

(3) $\overset{\alpha}{p}1^{-}2_{-}3^{\circ}4$; Eyes closed.

(4) $\left[\begin{matrix}\overset{\beta}{p}1^{-}2_{-}3^{\circ}4_{\circ}5^{\times}6\\ \overset{\beta}{p}1^{-}2_{-}3^{\circ}4_{\circ}5^{\times}6\end{matrix}\right]$; Eyes open.
$\overset{\alpha}{p}1^{-}2_{-}3$

(5) $\left[\begin{matrix}\left[\begin{matrix}\overset{\gamma}{p}1^{-}2_{-}3^{\circ}4_{\circ}5^{\times}6\\ \overset{\gamma}{p}1^{-}2_{-}3^{\circ}4_{\circ}5^{\times}6\end{matrix}\right]\\ \overset{\beta}{p}1^{-}2_{-}3^{\circ}4_{\circ}5\\ \overset{\alpha}{p}1^{-}2\end{matrix}\right]$; Eyes open.

In other words it seems highly probable that with each primary presentation, occasioned by direct stimulation of our bodily organs from the environment, there goes also a secondary presentation or image, which latter however is overwhelmed by the effects of the superior vividness of the primary presentation.[1]

In our normal life, where a stimulus acts not merely for an indefinitely short time but is continuous for a sufficient time to act in relation with the rhythm of activity within the system, then in successive moments we shall have, in the first place, a slight change in the reaction to the continuing stimulus from moment to moment due to the fact that the nature of the system is altered at each moment as the result of the reception of the stimulus; and

[1] Confer my *Pain, Pleasure and Aesthetics*, p. 29. Confer also Shadworth H. Hodgson, *Metaphysic of Experience*, vol. iii. p. 28, where he says "A presented sensation begins to recede into the past of memory the very moment of its rising into consciousness, or appearing above the threshold. I do not say merely from the moment of its attaining its maximum of vividness as a presentation, but from that of its rising into consciousness at all, prior, it may be, to its greatest vividness being reached. This is saying in other words that representation is included as an inseparable element, or ingredient, in all presentations."

this we may indicate by placing different Greek letters over the large P's used in the symbols. In any three moments, therefore, under a perfectly continuous stimulation we shall have three primary presentations which, taking each for itself, we may present thus :

$$(1)\quad \left\{ \begin{matrix} {}^{\alpha}P^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\alpha}p^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\}$$

$$(2)\quad \left\{ \begin{matrix} {}^{\beta}P^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\beta}p^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\}$$

$$(3)\quad \left\{ \begin{matrix} {}^{\gamma}P^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\gamma}p^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\}$$

But beyond this, in each successive moment after the first the primary presentation will be complicated by the development of the secondary presentations due to the effects of the preceding moments of stimulation. Consequently in the three successive moments we shall have forms of presentation which may be more properly symbolized as follows :

$$(1)\quad \left\{ \begin{matrix} {}^{\alpha}P^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\alpha}p^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\}.$$

$$(2)\quad \left\{ \begin{matrix} {}^{\beta}P^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\beta}p^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\};\quad {}^{\alpha}p^{1-2-3^{\circ}4_{\circ}5}.$$

$$(3)\quad \left\{ \begin{matrix} {}^{\gamma}P^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\gamma}p^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\};\quad {}^{\beta}p^{1-2-3^{\circ}4_{\circ}5};\quad {}^{\alpha}p^{1-2-3^{\circ}4}.$$

Here the difference of Greek letter above the letters P indicates, as noted above, that in successive moments there is some difference in the successive primary presentations, small though it be. The capital letters indicate the parts

of the total presentations due to the stimulation of the moment, and which are recognized as the primary presentations; while the small letters indicate the parts of the total presentation due in part to effects of previous stimulation, which constitute secondary presentations which are overwhelmed by the vividness of the several primary presentations.

Complicated as these formulae appear they will be recognized to be most artificially simplified for our special purpose. In fact the complexity of a noetic pattern, such as we have used as a simile in a previous chapter, gives a much closer suggestion of the real nature of the presentation of any moment. I present these formulae because in the final one (3) we have a symbol which we shall find useful later on; for it is typical, as it pictures well the simplest form of a primary presentation which can be conceived to occur in our experience, and may be presumed to represent the general form of the much more complex primary presentations we usually experience.

Sec. 18. In speaking as I have above, of the primary presentations being always "accompanied" by secondary presentations, I have, for the sake of simplicity in exposition, used my words somewhat loosely. These so-called accompanying secondary presentations must be in fact part and parcel of the whole complex presentation of the moment, into the complex mass of which both primary and secondary presentations are fused. What I wish to indicate is that certain parts of the primary presentation are eliminated where the presentation changes from a primary to a secondary presentation, or image; so that the secondary presentation, or image, appears as consisting only of the parts not thus eliminated. When, however, we come to consider the primary presentation in the analysis of reflection, these parts of the primary presentation, which as developed go to make up the body of the secondary

presentation, are overwhelmed by the effects of the more emphatic elements directly related to impression upon us from without.

B. Of "Representation."

Sec. 19. Let us now return to the consideration of the view, that secondary presentations are in no sense copies of primary presentations.

"Every moment of consciousness," says Bosanquet,[1] "is full of a given complex of presentation which passes away and can never be repeated without some difference. For this purpose, representation is just the same as a presentation, is in fact a presentation." The notion thus expressed is evidently utterly opposed to the view that images,—ideas,—"representations,"—are in any way copies of what I call primary presentations, but it is quite in accord with the view that each complex presentation as experienced is a new and unique presentation. Statements like this of Bosanquet's pass without serious objection, and modern psychologists since James would hesitate to deny their truth: nevertheless, it seems clear that the implications of this and similar statements are not realized by those who still persist in speaking of what I call secondary presentations as though they involved a reduplication of a previously experienced presentation.

As a matter of fact, in ordinary life, when we are not concerned to expound any psychological doctrine, we practically recognize that what we call representations are in no sense copies of what has gone before. In every day English speech we use the verb to "represent" with the meaning "to stand for" rather than with the meaning "to present again." This is as if the common man had quite naïvely come to agree that when we speak of presenting again, we are really thinking inaccurately of a presentation

[1] *Essentials of Logic*, p. 74.

which merely *stands for* a presentation that has preceded the one under consideration; and that the notion that we ever do have actual re-presentations is an illusion.

And at times recognition of this fact seems to be very explicit indeed. No one will claim, for instance, that the secondary presentation (the so-called re-presentation) of the face of his friend who died five years ago is in any way exactly the same thing as the secondary presentation to which he attached the same name the day after his friend's death. We will agree that when considerable lapses of time are taken into account, these secondary presentations are so much changed as to be practically new at all events; and we must likewise acknowledge that the change which is thus recognized must have been a gradual one. It is a marked one now that five years have passed away: it was just noticeable one year after the loss: it was unnoticeable a month after the death.

At first sight it is likely to seem necessary to some reader to hold that we are here dealing with a continuing presentation which has been losing attributes and connections as time has flown; for how else, it may be asked, can we know at all that the secondary presentation of a year ago has altered: if it appears to us to be the same in any respect it would seem that in some way we must hold a permanent somewhat; otherwise comparison of the secondary presentation, or revival, of one time could not be made with the secondary presentation of another time; indeed he may claim that in some manner the very original presentation remains with us to be compared with the miserable counterpart which we call the revival as it is today.[1]

[1] Dr. James Ward, for instance, in an article published in the issue of *Mind* of October 1883 (p. 478), holds that revivability involves identification in which one thinks, this mental state (*m* 2) is identical with the state (*m*) which has been before presented to me; and says "there seems but one way out of our difficulty, and that is to assume that after all the *m* was

Our previous consideration of the nature of comparison comes here to our aid, for it is clear that in the case above considered we are making comparison of two different secondary presentations in one complex presentation.

It seems clear that we recognize as a fact that the "image" we have today of the face of our friend who died five years ago is very much less satisfactory than the "image" of his face we had a week after his burial, when we tried to recall his appearance. In such cases we have before us, (*a*) a secondary presentation "the face of our friend as it appeared five years ago as a secondary presentation or image"; it is to be noted that this secondary presentation of this present moment is not at all the same as the secondary presentation, "the face of our friend" as it existed five years ago, although we carelessly speak of it as though it were. We have also before us (*b*) a secondary presentation "the face of our friend as it appears in memory today." And beyond this we have before us today (*c*) the comparison of these two secondary presentations which are partial emphases in one more complex noetic emphasis; in which comparison (*a*) "the face of our friend as it appeared five years ago as a secondary presentation," and (*b*) "the face of our friend as it appears in memory today" are found different, and not at all alike.

It is of course clear that this difference implies some sort of identity as the basis of the unity between these two

continually presented but with a diminished and perhaps ever-diminishing intensity, and further, that at its so-called representation its intensity was sufficiently increased to enable it to rise above the threshold of consciousness and become a distinct object of attention."

But it is apparent upon more careful thought that such a position cannot be accepted unreservedly in the face of the fact that we recognize that what we have today is notably *not* what we conceive that we had at the time of the death of our friend say five years ago. It is recognized to be but a mere unsatisfactory ghost of what we had in mind immediately after his death.

relations with Ireland. The policy of colonization, of which we saw the modest beginnings, had been pushed forward on a considerable scale, and British settlers had gone over in two waves. The first went to Ulster, and mainly in the time of James I. Since he was king of Scotland, the surplus population of that weaker state was enabled by English capital investment to move into the void created by the successes of English arms; and Ulster was filled up by both Englishmen and Scotsmen, partly under the auspices of a limited company compulsorily created by the Crown in the City of London. The second wave came into a larger area, which it settled much less densely. The original inhabitants of Ulster broke into rebellion in 1641. The final result of ten years of war in the whole of Ireland was the Cromwellian conquest, and a drastic resettlement by which only Connaught and County Clare were left wholly to the Irish, while some hundreds of British soldiers and other immigrants were settled as squires and farmers over the remainder. Ireland was now more orderly than it had been for centuries, and some able English administrators and business men were surveying its resources. Its population was probably under a million; how far under is a controversial point, but it seems likely that it was nearer three quarters of a million than half a million.

English emigration to Ireland was part of an overflow which also ran in other directions. In the first half of the seventeenth century there was a considerable movement to North America and the West Indies. By 1662 the British colonies there included Jamaica, Barbados, Bermuda, half a dozen small islands, and two groups of mainland colonies, New England in the

as so far like $\mathfrak{A}$ ("what A was") that a is almost completely identified with $\mathfrak{A}$; and a (the so-called representation of A) is said to be almost exactly $\mathfrak{A}$ ("what A was").

It is evident here that we are dealing, in the first place, with the comparison of differents, and not with anything like identities. And it is clear, in the second place, that the a and the $\mathfrak{A}$ with which we are dealing are widely different from A; for A was a primary presentation, while a and $\mathfrak{A}$ are clearly secondary presentations.

It is also clear that a and $\mathfrak{A}$ differ widely, although they are both parts of a complex secondary presentation; for a (the so-called "representation" of the non-existent A) may be what we have above called a primary memory image, or a secondary presentation which seems to be almost primary in its character; or it may be removed just as far as possible from such a primary image: that is to say a may differ widely in its character of nearness and vividness and fulness. But such is not the case with $\mathfrak{A}$ (what A was): it can never acquire the primary characteristics of the primary memory image; on the other hand, it has a certain completeness which does not belong to a (the so-called representation of A), which latter in comparison seems elusive and lacking in stability. a and $\mathfrak{A}$ can thus not be identified in any sense.

It is also clear that a is not a presentation again of $\mathfrak{A}$ (what A was), and I myself can see no ground whatever for the assertion that a is a presentation again of A itself.

Sec. 21. It appears then that in the introspective experience of the recognition of what we call images or representations we have no evidence whatever that they are exact reproductions of any previously existing presentations, and therefore the occurrence of these images or representations does not stand in opposition to the view already maintained that each complex presentation as experienced is a perfectly new one.

Our use of terms is evolved out of the every day needs of practical life. In this practical life we assume that the objects around us are what we call "the same" from moment to moment, although when we consider the matter carefully we know they cannot be actually so. It is only for convenience and for practical utility that we assume this identity even of object as the source of successive primary presentations, and of their connected images or secondary presentations.

In quite a similar manner we assume that the primary presentations arising in connection with successive experiences (and compared as secondary presentations in a new moment) are the same from moment to moment; but it must be acknowledged that this assumption, like the one first mentioned, is based, not upon any real permanency, but upon the needs of practical life. If we did not constantly react upon our environment just as if the secondary presentation of any one moment was what we call "the same as" the primary presentation of the previous moment,—just as if the primary presentation of one moment had *what we speak of as* permanent elements which ran over into the secondary presentation of the next moment, we should be unable to continue our existence as organic beings. It is this demand of practical life which has fastened upon us the crude notion that successive presentations are in some measure not always new and unique.

Sec. 22. In order to avoid misconception it is to be noted that the view that each presentation is new and unique does not stand in any opposition to that form of experience which leads us to describe consciousness as a stream, or to speak of what Dr. Ward calls the "presentation continuum." At any given moment we have as it were a cross section of the stream of consciousness; and it is this cross section which we speak of as being always new and unique. When we have the experience which

forms the basis of our conception of the "presentation continuum" we are taking a retrospective view of many successive presentations which have occurred in successive moments. But the presentation which we thus describe as "our conception of the presentation continuum" is itself new and unique.

C. Of Recurrence.

Sec. 23. We have thus far minimized the importance of noetic recurrence in our effort to emphasize the fact that each noetic state must be entirely new. This latter truth may be accepted however without leading to the denial of the self-evident fact that successive psychical states occur which in the form of secondary presentations we compare and call "just alike." For as we have just seen, our judgment that two successive conscious states are just alike does not imply that one of the two is an exact reduplication of the other. This point being accepted, we may without misunderstanding consider the nature of the recurrence of those physiological and psychical states which we call "just alike."

Sec. 24. The rhythmical beating of the heart and the scarcely noticeable activities of breathing, the less regular but still distinctly rhythmical activities in the alimentary canal, the alternation of sleeping and waking states, are commonplace examples of physiological recurrence which must involve the recurrence of neururgic activities: and if we look a little deeper we are led to see that these are but special instances of a very general tendency.[1] But beyond these effects, which are directly or indirectly due to the rhythmical nature of stimuli, it is evident that the constitution of our complex nervous system itself is such that it tends to act in a more or less distinctly

[1] Confer Bain, *Emotions and Will*, Sec. 37, p. 44.

rhythmical way, even under conditions of continuous stimulation.[1]

In our complex bodily system any active neural elements must recuperate by the absorption of nutrition from other parts which are very indirectly connected with the active part; and this itself must involve neururgic recurrence. For if a neural element *a* is stimulated to activity it at once telegraphs, so to speak, to special nervous centres, which in turn telegraph to the vaso-motor nerves, which in turn telegraph to the heart, asking for an extra supply of blood. Some time must elapse however before the heart can answer and before the arteries can carry the added supply; and in the meantime the capacity of *a* to act has been lessened, to be increased again as soon as the increased supply of nourishment is brought to it: then there is heightened activity again, followed by another less degree of activity, and another telegraphic message, and another wait for the needed blood. The action thus simply stated is of course really enormously complicated; the operators at the heart end, or at the intermediate signal stations, may be too busy with other calls to attend to the call from *a*; or complications may arise on the way so that the extra blood supplied by the arteries is drawn off in other directions than those which would bring it to *a*.

Although the above is an almost absurdly simplified picture of the highly complex processes of nervous activity in relation to those of nutritive supply, it will serve to

[1] "The nerve process," says Höffding (*Outlines of Psychology*, Chapter v.), "whatever its nature may be, is carried on in pulsating beats or oscillations. It is the highest law of the general physiology of the nerves, that a nerve process can never be set up by a state of equilibrium, but only by sudden changes, effected with a certain rapidity, in the condition of the nerve. A seemingly continuous nerve process (tetanus) is really only brought about by a series of quickly succeeding changes of equilibrium. The relations in the individual sense-organs, so far as known, accord with this law."

show that the emphases of neural activity which produce special neururgic patterns can never be expected to be continuous, but must be of an immensely complex, yet for all that of a more or less recurrent, nature.[1] And if this is true, then we should expect to find that where complex emphases produce special distinctive neururgic patterns, these patterns would not appear to persist continuously, but would occur in a more or less rhythmical form. Whenever then neururgic patterns appear again and again as the result of this tendency they may be spoken of as recurrent neururgic patterns.

It is not to be implied that such recurrences will always be recognizable. Even though they tend to appear they are likely often to be obliterated as it were by other patterns which are aroused by powerful stimuli. But it is not too much to assume that the recurrence of a given neururgic pattern involves the establishment of relations between neururgic parts which renders the system quick to develop anew what we call the "self-same" pattern; that is to say, a given neururgic pattern has within itself the essential qualities which, apart from inhibition, will lead to its recurrence.

Evidently the establishment of these relations which lead to recurrence will depend largely upon the force, and persistence, of the stimuli which produce the original occurrence; and this whether these stimuli are due to action upon the organism from the environment, or are entirely within the system in parts extraneous to the parts in which the original occurrence is given. This point will be found to

[1] As indicative of the complexity of the rhythmical process we may quote the following passage from Loeb's *Physiology of the Brain*, p. 10. In speaking of the rhythmical contractions of the muscles, he says: "observations in the lower animals show that the coordination of automatic movements is caused by the fact that the element which beats most quickly forces the others to beat in its own rhythm."

be of interest when we consider the noetic correspondences below.

Sec. 25. Turning now to the noetic view, we here see clearly the correspondences we should expect to discover. In the field of impression evidences of this noetic recurrence are clearly observed by us when, for instance, we study the phenomena of "after images," which appear, fade away, and reappear, in negative or positive form, in a very distinctly rhythmical manner;—and this be it noted without any recurrence of the stimulation of the sense organs which originally called them forth. Taking a step away from the impressional field we may mention as an example the familiar experience of "a tune running in one's head": here a special sequence of secondary presentations of musical notes occurs and recurs; it being often observable in my own experience that some striking musical phrase of a given aria is repeated over and over again, the whole aria not being carried through, the special phrase in repetition appearing to break in upon the sequence of notes before it can be developed to a close. Taking a still further step from the region of impression; all of us must note the persistent recurrence of special ideas, especially marked in morbid cases as *idées fixes*.

If it is remarked that within the realm of ideas, as distinguished from impressions, rhythm of recurrence is ordinarily not noticeable, it is also to be said that this is natural when we consider the complexity of the phenomena within this realm, and their disturbance by impressional presentations. In every day life, and to ordinary observation, we of course cannot expect that delicate and relatively exact rhythms will often be noted: but we do not intend to insist that noetic patterns recur in recognizable rhythms: all that we are here concerned to note is that this noetic recurrence is as deep a law of our psychic life as the corresponding neururgic recurrence is of our physical life. As Stout says[1]

[1] *Analytic Psychology*, i. 263.

in discussing habit; "one necessary and omnipresent condition of the formation of habit is the tendency of any mental process with its connected movements to repeat itself, simply because it has occurred before,—a tendency which grows stronger the more frequently the process occurs."

It will appear clear to the reader that each of such recurrent presentations is always of the nature of what we have called a secondary presentation. Now while we cannot call such a secondary presentation a "representation" without great danger of self-deception, we surely may call it a revival. It is a presentation born again, a new living presentation whose form is determined by what was an old life:—but for the previous existence of the primary presentation the secondary presentation would not be what it is. All this is as far from saying that the secondary presentation is a representation as it would be to say that I am the same thing as the mother who gave me birth.[1] From now on I shall therefore speak of these recurrent secondary presentations as revivals.

As we have remarked above, neururgic recurrences are largely dependent upon the force, and persistence, of the

[1] It is to be noted here that there is some difference of usage of terms in this connection. Only certain revivals are memories. This distinction in my view should be kept clear. But the word memory is often applied recklessly to designate any sort of recall, or revival, or so-called representation. It is to be noted that Miss Calkins in her *Introduction to Psychology* makes the distinction of my text; but uses the term "memory" to describe what I call "revival," and the term "recognition" to describe what I call "memory." I prefer the terms I use because the word memory is now commonly employed to apply to what I call by that name, and to what Miss Calkins calls recognition: and although, as I have said above, the word is carelessly used to apply to states which are not cases of recognition, I believe its use in proper connections cannot be displaced.

It is also to be noted that Dr. James Ward (*Encyclopedia Britannica* Article, p. 47) places "retentiveness" in opposition to both recognition and memory which he distinguishes from one another (p. 63).

original neururgic occurrences; and as revivals are the psychic correspondents of these neururgic recurrences, we should expect to note that the appreciated force, and persistence, of the original primary or secondary presentations would be recognized as having close relations with the process of revival. That such is the case is recognized by all psychologists, this being especially noted in their studies of association and memory which we consider in Book II.

Sec. 26. At this juncture it may be well to enquire whether it can be held that all of our secondary presentations inclusive of what we call our ideas can be shown to be revivals, or combinations of revivals, of primary presentations or sensational impressions.

It happens that attention has been largely concentrated by psychologists in the past upon secondary presentations which can be traced back to primary presentations: and it has been discovered that in a large number of cases where we experience secondary presentations which are not immediately appreciated to have been connected with primary presentations, more thorough study shows us that correspondent primary presentations have nevertheless in the past been experienced by us. This has led to the claim of the associationist psychologists that all secondary presentations can be traced back finally to primary presentations. It is true that a difficulty in connection with such a view appears in the fact that certain secondary presentations appear in connection with which it would seem that no corresponding primary presentations could possibly have existed: *e.g.* the "factors of safety" used in engineering work, the "coefficients" used in algebraic manipulation. But these the associationists explained, by claiming that they were due to the summation of, or *quasi* chemical combination of, secondary presentations which could be traced back to primary presentations: a view however that involved the assumption,

which we find unwarranted, that presentations have in some way a permanent character. A little consideration will show us that under our view we should expect to find just such forms of secondary presentation.

Sec. 27. We have found reason to believe that each primary presentation involves what in itself would be a secondary presentation, which latter does not lose its essential form when the stimulations from the environment which produced the primary form cease. There must then exist what we may call secondary noetic patterns involved with the more marked primary noetic patterns.

Evidently the primary noetic patterns, being due to intermittent stimulation must be so variable in their nature that we may speak of them as displaying an intermittent form. The secondary noetic patterns on the other hand not being directly determined by variable environmental stimuli must be continuous in their efficiency, whether they lead to distinctly noticeable presentations or not. The secondary presentations as a class must form a continuum apart from the intermittent primary presentations, so that we may speak of a secondary presentation continuum running smoothly parallel with the more variable primary-presentation continuum.

It is from presentations within this secondary-presentation continuum, we may assume, that develop by combination new forms of secondary presentations in connection with which no corresponding primary presentations could have existed. But it must be noted at this point that secondary presentations of the type now considered separate themselves away rather sharply not only from primary presentations, but also from those secondary presentations which we have called revivals. That they are developed out of what might be revivals seems clear; but it is equally clear that they may be due to the coincident effects of revivals whose primary presentations could not possibly have been coincident; and

if such is the case it is evident not only that they cannot be traced back to primary presentations, but also that they cannot with propriety be called revivals.[1]

[1] If we turn again to the consideration of the general nature of recurrence, we note that, within the whole body of a man, neururgic patterns may recur at long intervals, and at such long intervals that we may well conceive the neural elements involved in the first case to have become senile and to have died, and to have been replaced by others, at the time of the recurrence. Similarly on a higher scale we see that individual organisms,—and this is specially marked among the higher animals,—develop in given ways determined by what we call inheritance; so that, although one generation gives place to another, given activities and given neururgic patterns appear in individuals of successive generations, which activities seem to be determined by forces altogether unrelated to the individual's own experience. Neururgic patterns which are thus described as recurrent appear in man considered as a species, quite apart from the life experience of the individual in whom they appear.

Now if this is true it is clear that, if the hypothesis of correspondence is valid, noetic patterns must also appear in the form of what we call recurrences in individual men from one generation to another which are determined by inheritance, and which are not in the main due to the individual's experience: and if the emphases within these noetic patterns are sufficiently marked it is clear that they may appear as ideas in the field of attention.

We seem thus forced to return in a way to the doctrine of *innate ideas*; *i.e.* to deny the verbal correctness at least of the thesis which Locke so strenuously opposed; although, as is apparent, this doctrine must now be held in a very different form from that which Locke attacked.

We surely cannot hold that any idea that we have can be what it is but for the experience of life which may have modified what it would have been as the result of mere inheritance: but on the other hand we must grant that the essential part of many of our ideas must be given to us by mere inheritance.

The correctness of this view seems to be practically proven by the marvellous mental development of Helen Keller; blind, and deaf, and dumb. It seems evident that almost as wide a range of ideas are presented to her as are presented to me; and it is difficult to comprehend how this can be the case unless, apart from the experiences of her life, ideas have been presented to her corresponding with neururgic patterns which arise in her nervous system as the result of inheritance from her ancestors.

Sec. 28. In closing this chapter we may well note that given secondary noetic patterns are brought into prominence as recurrences just because they have in them elements which have been common to previously occurring primary or secondary noetic patterns. This is the phenomena upon which are based the so-called laws of association of which we speak elsewhere.

This being true we should expect to find certain noetic patterns which appear in emphatic form at one time, but which fail to become revivable simply because they have failed to assimilate with the broad noetic pattern of the moment in which they appeared. Assimilation is thus a most significant factor in our life of thought, in which secondary presentations are of such pre-eminent importance. This point is worth noting because it brings out clearly the fact that not all secondary, nor even all primary, presentations, must necessarily be revivable. We often realize that objective conditions have existed which would usually induce a certain noetic pattern, of which pattern however we are able to gain no revival: and we are wont to assume all too often that no such noetic pattern existed: that is to say, because we cannot revive a given mental state we are apt to think it did not exist in the past in connection with conditions which usually would make it prominent in attention. But it must be agreed that the most we have a right to claim is that the noetic pattern failed to be assimilated, and therefore cannot be revived in the complex noetic patterns of the moment of reflection.

Beyond this we may note that certain activities of the nervous system in a moment *a* may be of such slight importance that they will be unable to produce an effective modification of the neururgic pattern of that moment, but must be part and parcel of the vast mass of undifferentiable activities against which not only each neururgic emphasis, but even the pattern itself stands out in contrast. A large

proportion of the so-called reflex actions are of just this nature: and as such their psychic coincidents should not be expected to effect the coincident noetic pattern of the moment; for these psychic coincidents must be constituents of that vast mass of psychic elements which form the Self,—the background against which appear by contrast the presentations which determine the form of the noetic pattern of the moment *a*. If the psychic correspondents of these reflex acts do not form a part of the presentation in the moment *a* it cannot be expected, under any but extraordinary conditions, that they will affect the form of presentation of a subsequent moment *b* in the shape of a revival. But this should not lead us to hold that these psychic elements corresponding with the reflex actions did not affect in some measure the mass of the consciousness as a whole in that moment *a*.

No assumption in psychology is more persistent, and none more unwarranted, than that which leads us to assert that a psychic form was not given in consciousness at some one moment because we can obtain no revival of this form in a subsequent moment. We are led by this unwarranted assumption into all sorts of difficulties which will be considered from time to time as we proceed with our work: and I take this opportunity to make my protest against the careless assumption that all forms that appear in consciousness at any special moment considered are necessarily revivable in attention in future moments.

It is to be noted on the other hand that, if our conception of the existence of a secondary presentation continuum is correct, submerged noetic patterns of various forms must be constantly developing within the field of inattention: and if this is true we should expect that the coincidence of efficiencies within such diverse noetic patterns would occasionally result in the production of noetic emphases sufficiently marked to appear in attention. Thus we should

expect to note the appearance at times of fully developed thoughts unpreceded by any such presentations as would normally be appreciated as the antecedents of such thoughts. We note just such experiences in what is usually spoken of as "unconscious cerebration," of which we speak later.

APPENDIX A.

CERTAIN CONSIDERATIONS IN RELATION TO THE DIVERSE TYPES OF PRESENTATIONS REFERRED TO IN CHAPTER IV.

Sec. 1. We have seen that we may group our presentations broadly as receptive, reactive, and coordinative. It is true that if we attempt to fix within these classes the position of all forms of presentations we are met by serious difficulties. Sensations are distinctly receptive in quality, instinct experiences are as distinctly reactive, and the realm of thought is clearly coordinative: but on the other hand sensations, percepts, concepts, images, desires, impulses, instinct experiences and emotions, voluntary efforts, form what we may roughly describe as a continuous series, no one element of which when analyzed is found to be altogether exclusive of any other element, each element being differentiated from the others, and from the whole, merely by its emphasis within the whole field of conscious experience.

It will evidently be impossible to consider here each special psychic quality, for this would mean the description of every one of the innumerable differentiable forms of presentation discovered in experience. On the other hand, it may be well for us to study briefly certain points in relation to the main groups referred to in order to note the bearing of our conceptions upon certain points which may seem to some readers to be open to question.

I. The Sensations.

Sec. 2. A few points only require consideration in relation to the receptive group of noetic emphasis.

The sensations are due to emphatic activities which are themselves not strictly limited to the terminal organs, but which involve the activity of the adjacent minor nervous systems of which they are the outlying parts.[1] It has been held however by many neurologists in the past that when we experience a given sensation the effective emphatic activity is concentrated in one centre, or in some very limited group of centres, in the brain. This view cannot well be maintained however when we consider that what we know of the structure of the nervous system leads us to see that it is all but impossible to think of a very emphatic partial activity which does not spread its influence far beyond the centres in which the greatest emphasis appears. And when we consider our experience with care we discover that a sensation always has in it something that appears to be apart from the correspondent of the direct results of the stimulation: what the psychologists are wont to call apperception is involved with even the simplest sensation.[2] Whatever may be the conditions of activity in the nervous system it is certain that when we experience a sensation the presentation involves a

[1] Sidis (*Psychological Review*, January and March, 1908) holds that where sound-photisms, light-phonisms, etc., occur, a stimulus to one sense gives rise to what must be designated as, not an image, but a true sensation belonging to another sense than that directly stimulated: and he holds that in normal perception the same sort of "secondary sensations" occur, the only difference being that they are closely fused with the primary sensation, whereas in synesthesia they are partially dissociated. All the facts upon which this view is based are readily accounted for by the fact that the minor nervous systems in the receptive group are much more closely integrated than any one of them is with any minor nervous system outside of this receptive group.

[2] Confer Witmer, *Analytical Psychology*, chapter i.

somewhat broad field within which the sensation appears as an especially emphatic part.

It is clear of course that the emphatic nervous activities which arise in connection with the stimulation of the sense organs are less diffused throughout the whole nervous system than those which occur when the system as a whole is aroused: and inasmuch as stimulations from the environment are forced upon us from without, and are for the most part beyond control, and are often very powerful, it is natural to find, as we do, that our sensational presentations are very prominent in our experience. Nevertheless as the emphatic activities thus initiated become diffused, broader minor systems must become emphatically active; and thus we find sensations widening out, as it were, into what we call percepts, of which we speak later.

The vividness of sensation is so marked however that it is not at all unnatural to find that many psychologists have assumed that our sensations are the basis of all of our conscious life. But while it is true that we cannot think of human consciousness as we experience it apart from the constant recurrence of this sensational initiation of psychic activity; nevertheless there seems little ground, as we have already seen, for the common view that the middle region of thought, if we may so speak, is sensational in its nature. It is easily conceivable that the broader minor nervous systems, the activities in which are coincident with thought, might, under other conditions than those actually realized, be stimulated to activity in other ways than by sensational stimulation; and these emphatic activities, being in other and diverse minor systems than those directly related to the activities connected with sensation, must be looked upon as diverse from the latter, even though we agree that in their basic character these diverse psychic systems are similar in their nature, just as the activities of all neural systems have a fundamental unity of nature.

It appears therefore that it cannot be maintained that all consciousness is directly or derivatively of a sensational nature.

Sec. 3. One point of considerable importance may here be noted, viz. that as pleasures and pains as such are, under the view to be presented in Book II., general qualities of all presentations, no forms of them can be what are usually called specific sensations of which pressure, touch, cold, taste, etc., are types. What are called physical pleasures and physical pains, and which are thought by many to be such specific sensations, are really sensations which are markedly pleasant or painful as the case may be. The arguments in favor of this view, to which I refer again in Book II. Chapter XI., have been so fully covered in my *Pain, Pleasure, and Aesthetics* (pp. 15-32), that it does not appear worth while to do more here than call attention to a few objections that have been made since that volume was published.

Sec. 4. This view that pleasures and pains are of a sensational nature is generally tacitly abandoned now-a-days so far as pleasure is concerned, although the same cannot be said concerning pain. Stumpf in an address before the Second Congress of Experimental Psychologists, and in fuller form in the *Zeitschrift f. Psychologie*, Bd. 44, has reiterated the claim that pains are sensations without making an attempt to reply to many objections raised to this view, as for instance in my published discussions, which indeed (see his footnote on p. 24) he incidentally says he has not read.[1] In his treatment of the subject I find no argument which I have not considered in my book above mentioned except one which he takes from Külpe, and which I consider below in Chapter XI., and again in Chapter XX. Sec. 4, footnote.[2]

[1] Confer Prof. Max Meyer's "The Nervous Correlate of Pleasantness and Unpleasantness," *Psychological Review*, XV. 4, p. 205, foot-note. Also my "Algedonics and Sensationalism," *Journal of Philosophy*, etc., vol. VI. I. pp. 1 ff.

[2] A good example of the difficulties connected with the acceptance of the sensational view is found in the pain of toothache. If there are pain sense

The emphasis of pain in the region of sensation is so marked that there is now a tendency to attempt to dodge the acknowledgment that pain is a quality which may be experienced in connection with other presentations than sensations by separating physical pain (schmerz) from disagreeableness (unlust); the former being held to be of a sensational type, the latter a quality which may belong to other states than sensations. No similar attempt however is commonly made in relation to pleasure: and it is to be noted in this connection that as without any question our most vivid of pleasures are sensational, just as our most vivid of pains are sensational; so if we separate *schmerz* from *unlust*, we should in like manner separate sense pleasures from other pleasures. The reason why we tend to emphasize pain as sensation, rather than pleasure as sensation, is clearly because action which is destructive of the tissues, and which produces physical pain (schmerz), is experienced frequently most persistently, and this because of the lesions involved which do not readily heal; while there is no similar basis for the special persistence and recurrence of physical pleasures.

terminals in the teeth we must assume them to be placed there by nature to give notice of danger to the teeth, which danger the organism will tend to avoid when pain accrues. But as a matter of fact the pain terminals, if such there be, are placed so deep in the body of the tooth that the pain does not appear until the destructive action upon the tooth has gone so far that the natural man cannot avoid the danger. His only mode of stopping the pain is to extract the tooth, thus reducing the efficiency of his digestive processes.

It may be noted in this connection that Sherrington (*Integrative Action of the Nervous System*), who accepts the view that there are "pain" end organs, finds that they form an exception to the rule that the function of the sense organs is to lower the threshold for a particular sort of stimulus, while simultaneously raising the threshold for other stimuli, so as to make possible different reactions to different classes of stimuli. The "pain" organs he holds are not specially adapted to any one physical stimulus, but respond to a stimulus of any sort which threatens injury to the part where the pain organ is located. Such a very special relation to environmental stimulation surely argues against the classification of pains with specific sensations.

I do not consider this separation of physical from other pleasures and pains fundamentally important; it is but a special form of the natural division of psychic states which for so long led to the adoption of the so-called "faculty psychology."

Sec. 5. One point of importance in relation to the sensational realm must not be overlooked here. Notwithstanding the fact that these so-called receptive minor nervous systems are concerned with the incidence of energy to the total complex nervous system; nevertheless in one and the same moment these minor nervous systems as such must themselves be looked upon as both receptive and reactive. Objective evidence shows them to be receptive of stimuli from the environment, and indicates that as thus stimulated they communicate energy to adjacent parts by a process of diffusion.

In like manner subjective experience shows that our sensations, while receptive in relation to the whole psychic system, are in themselves not only of a receptive nature, but also at the same time of a reactive nature. This appears in the fact that sensational experience is always to be noted as arousing more complex forms of experience in perception and conception, of which we speak more fully later on.

II. The Reactive States.

Sec. 6. In the complex nervous system there are, as we have seen, groups of minor systems which relate directly to the reaction of the organism as a whole upon its environment. Emphases of the activities within these groups must give to us specially noticeable neururgic patterns, which will display characteristics which are not common to all neururgic patterns, but which are special because due to the limitation to these special groups of the emphases which characterize them.

The typical reactions of complex organisms and of rela-

tively simple organisms, when objectively viewed, all appear to be of forms fitted to conserve the life of the individual organism, or the persistence of the race to which the individual belongs. As we commonly speak of these actions as due to the existence of instincts, we may for convenience speak of them as "instinct actions." But if by "instinct actions" we mean reactions which have biological significance for the individual in which they appear, and use the term in reference to the reactions of relatively simple organisms, we may well extend the use of the term to the reactions of the simplest of cells, for these reactions also subserve the advantage of the individual cell. Thus I use the term "instinct action" to describe the reaction of any elemental nervous part, of any systematized aggregate of nervous elements, and of the whole broadly systematized nervous mass as a whole.

If the theory of thoroughgoing neururgic and noetic correspondence is valid the reactions of the human organism which we thus designate as its "instinct actions" must develop special forms of neururgic patterns in which certain special emphases will appear; and corresponding with which there will appear in consciousness presentations of special forms, which we may designate as "instinct experiences." That very clearly differentiated forms of instinct experiences constantly appear in the field of attention cannot be questioned. When I suddenly catch myself falling on a slippery pavement, I have an instinct experience of a specific kind; and when I quickly throw up my arm to ward off an expected blow, and in all similar cases, special forms of instinct experience become prominent in attention. And beyond these very clearly differentiated cases careful introspection must convince one that the constantly occurring adjustments of our body to its environment, even where these lack emphasis or suddenness, are accompanied by very special forms of instinct experience.

Sec. 7. Our general considerations lead us to see that our instinct actions involve not only the reactive minor nervous systems, but a throb of the whole nervous systems,—the formation of special neururgic patterns in which certain parts are emphatically active. But it is to be noted that the emphasis of special activities does not imply that the rest of the activities of the whole nervous system fail to have their influence upon the form of the neururgic pattern of the moment.

Correspondingly we are led to see that each special instinct experience involves a throb, so to speak, of the whole noetic system, the formation within consciousness of a special noetic pattern, in which certain psychic parts are so emphasized that they appear as presentations. But it is to be noted that the existence of psychic emphases of a special type does not imply that the rest of the noetic system fails to have its influence upon the form of the noetic pattern of the moment. These instinct-experiences therefore may be said to be characterized by a quality determined by the fact that the psychic emphases which distinguish them are not found in all presentations, but only in those which bear relation to noetic patterns accompanying reactions upon our environment.

Sec. 8. In the complex human nervous system we discover that the activities of the specialized centers which relate to the reaction of the organism as a whole upon its environment are themselves sources of stimulation to the system at large. Thus we find connections existing between the reactive centers and the receptive and coordinative centers of the organism of such a nature that the activities of the organism's reactive centers lead to stimulations within the organism's receptive and coordinative centers. The connections between the reactive and the receptive centers are traceable with a fair degree of clearness; those between the reactive and coordinative less clearly, but of the existence of the latter there can be little doubt. We shall speak

more especially however of the connections between the reactive and receptive centers concerning which there is no question.

The activities of the specialized reactive systems then are sources of stimulative activities in relation to the total system, which while differing from the activities due to stimulation of the organism from the environment are nevertheless of the same general nature so far as the pre-eminent system in the brain is concerned, which is stimulated from without itself in much the same way in both cases. This is a result of the complexity of our neural systems which involves the necessity of the adjustment of opposed reactive tendencies; of the guidance or inhibition of certain reactions which under some circumstances are valuable, but which under others are disadvantageous; an adjustment which is only obtained as the result of the complex relation of minor neural systems within the greater system. The beginnings of the activity of one minor reactive system affect directly or indirectly another minor receptive or central system, and this minor receptive or central system reacts to guide or inhibit the activity which is just beginning in the reactive minor system first affected.

It is very clear thus that the psychic correspondent of the instinct action must be a noetic pulse which involves not only the psychic correspondents of the activities within the reactive centers themselves, but also the psychic correspondents of those activities within the system which are produced indirectly by what Lloyd Morgan has well called a "back stroke" from the reactive parts to the parts which have to do with the receptivity. And it is clear that it may well be that under certain conditions the "back stroke" activity will be sufficiently powerful to so determine the special form of the neururgic pattern that the form of the corresponding noetic pattern will be apparently determined solely by sensational elements, although really these are merely emphatic, and not exclusively important, in the whole psychic state.

That these sensational elements, from muscle and blood vessel, etc., etc., are important determinants of our instinct-experiences in general cannot be doubted; and in certain cases they become of so great importance that in introspection they attract exclusive attention, as we shall presently see. We must never however overlook the fact that the noetic pattern corresponding with an instinct action must necessarily involve the psychic modification of all parts of the system whose corresponding nervous activities are modified at the moment of the reaction.

If our reactive "instinct experiences" are of the nature thus described it is evident that there must be an enormous number of them, each of which is *sui generis*, each differentiated by the diverse emphases in diverse parts, so to speak, of the highly complex human conscious system. It is true, as Professor James has said,[1] that no other mammal, not even the monkey, shows so large an array of diverse types of instinct actions as man does. And in correspondence with these diverse forms of instinct actions there exist similarly diverse forms of instinct experiences.

Sec. 9. It is clear that certain of these instinct experiences may be more often repeated than others; that certain of them may be more regular in their occurrence than others; that certain of them may be commonly more emphatic than others; and that certain of them may involve more definitely than others the repetition of "the same" psychic elements. Where "the same" psychic elements are involved in any class of emphatic experiences we have the basis for the naming of the class.

If we discover any class of instinct experiences which occur often but not with great regularity; which when they occur must be emphatic if they are to be effective; and which involve at each recurrence practically "the same" psychic elements; then it is likely that we shall find ourselves giving

[1] *Psychology*, ii. p. 441.

to this class of instinct experiences a definite name. Such a class of instinct experiences, in my view, we have in what we call our Emotions.[1]

[1] It is to be remarked that there has been a tendency among psychologists to describe pain and pleasure as emotions; or to assume that the emotions are associated "representations" of pleasures and of pains. This latter assumption was natural to those who had become accustomed to thinking in terms of the atomistic psychology of the associationists; but that it is entirely inadequate I think has been shown in my *Pain, Pleasure, and Aesthetics*. It was seized upon to cover the difficulties connected with the more naïve view that pain and pleasure are emotions: a view which at once shows its weakness when we note that pleasure and pain cannot in any way be thought of as instinct experiences, with which on the other hand the emotions must be acknowledged to be closely related. The basis of both these views lies in the fact that our instinct experiences in general are presentations involving many minor psychic emphases. The emotions being instinct experiences in which these many minor emphases display marked elemental intensities must usually carry with them marked algedonic qualifications; and the emotions therefore must be expected to display summational pleasure and summational pain of high degree.

I can find no sufficient reason for holding with Dr. David Irons that we have in emotion an ultimate and primary aspect of mind. Nor can I accept the theory which Prof. J. R. Angell presents in his *Psychology*, in accordance with which "emotions appear whenever there is a conflict among the motor pulses called forth by any special situation" (p. 323). For such conflicts must occur in some measure in connection with all the instinctive reactions in so complex an animal as man. Prof. Angell's view would seem to imply that emotions as such must usually result in more or less of an inhibition of action of a nature related to the protection of the organism. But it is apparent that our most significant emotions are very distinctly correspondent with positive activities valuable to the organism as a whole, and the complex instinct actions thus corresponding with them are probably conserved in our life for this very reason. That certain of the emotions lead to some degree of paralysis of reactions is true; but this is not the case with all of them by any means (joy for instance); and where it is the case it is usually apparent that the paralysis is often of the essence of the protective adaptation (dread for instance); or is the outcome of exhaustion due to the very violence of the activities involved when the emotion is most vividly experienced. (Fear for instance begins with the extreme activities connected with escape: it may end in an exhaustive failure of activity; but then the nature of the emotion is altogether altered.)

This conception of the nature of the Emotions I have examined so fully in my *Pain, Pleasure, and Aesthetics* and in my *Instinct and Reason* that I may present it here very briefly. Under this view what we call our Emotions are nothing more nor less than special types of instinct-experiences corresponding with instinctive reactions which relate to the protection of the whole bodily system. The special emotional form is given in the fact that the most distinctive types of emotion correspond with bodily reactions which must be prompt and forceful if they are to be effective (as in the case of Fear, Anger, etc.), and which for this reason must almost necessarily compel attention. Furthermore, they involve in all distinctive cases the psychic correspondents of certain particular sets of activities, which are distinguishable as complex units, and to which we are therefore able to attach definite names: with a large proportion of our instinct experiences this is not the case, and these are not designated as emotions. Furthermore, the emotions occur usually after, or together with, the appearance in attention, of a clear perception or conception of some object, or objective condition, in the outer-world series.

If this view is correct we should expect to find, as we do find, our emotions varying in the degree of their forcefulness and immediacy. For instance, take the three groups: (A) 1. dread, 2. fear, 3. panic; (B) 1. affection, 2. love, 3. passion; (C) 1. hostility, 2. hatred, 3. anger. Each of the emotions in each of the groups A, B, and C, is clearly differentiated; yet each emotion is more closely related to the emotions within its group than with any outside of its group. At the same time, within these groups the emotions increase in forcefulness and immediacy from 1 to 3.

We should also expect to find, as we do find, some cases in which the distinguishableness of the emotions is clear, but others where it passes into a vague diffuseness; as affection is distinguished from passion, and hostility from anger.

If it is true that the emotions are distinguished from the instinct experiences in general by the relative forcefulness and suddenness of appearance, we might well expect to find very prominent in them the sensational elements produced by the "back stroke," and might expect these latter to be almost exclusively prominent in the analysis of reflection. It is to this fact that is due the force of the James-Lange "back stroke" theory of the emotions. This theory in the words of James[1] is that "the bodily changes follow directly the perception of the exciting fact and that our feeling of the same changes, as they occur, is the Emotion." Verbally there is little to object to in this statement. But it is interpreted to mean that we first have the reactions, and then the sensational record of them, which latter constitutes the emotion. In my view this interpretation is incorrect. In the first place it is not correct to say either that the emotions cause the instinctive reaction, as is commonly held; nor to say that the instinctive reactions cause the emotions, as the common statement of the James-Lange theory implies. We do not strike as the result of anger as is commonly assumed, nor are we angry as the result of the neururgic situation which is evidenced in striking our enemy. The emotion is the coincident of the instinct action. We are angry and we strike at one and the same moment.

Beyond this the emotion is the whole body of the instinct experience corresponding with the whole body of the instinct action, in which instinct experience the back stroke sensational elements are of so great moment that they usually alone appear in reflection; but in which these back stroke sensational elements are not exclusive of the modification of the psychic parts directly involved with the reactive elements themselves, nor of the realms which coordinate the receptive with the reactive realms. As Professor Royce well says, "in addition to all states of our organs of

[1] *Psychology*, ii. 449.

external and bodily sense, purely central nervous conditions have much to do with the tone and intensity of our emotions."[1]

Thus in my view the James-Lange theory stands in need of restatement to make it tenable. Instinct experiences (of which emotions are a special form) are the psychic coincidents of complex instinct actions, inclusive of those reactions to the stimuli from the reactive organs which by "back strokes" affect the general system. They are therefore reactive experiences, and also at the same time ideational and sensational experiences of very complex form. They may best be described in their totality as the psychic coincidents of the total reactions of the total system upon its environment at the moment. The enunciation and discussion of the James-Lange theory has been chiefly valuable, in my opinion, in forcing upon us the knowledge of the fact of the relation of the emotions to the instincts. As James[2] well says, "instinctive reactions and emotional expressions shade imperceptibly into each other."

Sec. 10. Here again if we consider the constitution of the minor nervous systems which directly relate to our reaction upon the environment, we note that while there must exist a close bond between them all in the fact that they all bear a special relation to the mass of the nervous system, nevertheless they must be broadly differentiated into groups of closely allied minor systems, and within these groups into distinguishable minor systems of lower orders.

Correspondingly in experience we find broad classes of instinct experiences, and of the emotions which are the most fixed and characteristic of these instinct experiences. We have, for instance, those which relate to what is advantageous

[1] *Outlines of Psychology*, p. 334. Mr. Stout in his *Groundwork of Psychology* (cf. pp. 192-195) shows himself to be in general agreement with the views I uphold.

[2] *Op. cit.* ii. p. 442.

as contradistinguished from those which relate to what is disadvantageous; love, and the instinct feelings relating to the attraction of others on the one hand; hate, anger, fear, etc., on the other. These groupings may be made in an indefinite number of ways.

Beyond this we find that we may make, within any major group of instinct experiences, a great variety of minor differentiations. What Professor James says[1] of the emotions is equally true of all the instinct experiences of which the emotions are a special type: "If one should seek to name each particular one of them of which the human heart is the seat, it is plain that the limit of their number would be in the introspective vocabulary of the seeker, each race of men having found names for some shades of feeling which other races have left undiscriminated."

Sec. 11. We should expect to find that instinct experiences, inclusive of the emotions, would be less potent in influencing attention than sensations and their developments in percepts; for the activities in reactions of the whole system upon its environment are broad in extent and are relatively well balanced in forcefulness. Thus it is that the region of instinct experience is vague and difficult of analysis, and this without doubt accounts for the fact that these instinct experiences in general have not been analysed until of late; that they have been massed together as an indefinite region of "feeling";[2] that the specially marked instinct experiences which we call the emotions have for so long been misunderstood, being identified by some with pleasures and pains, and by others subsumed roughly with the vague and elusive region of "feeling." It is also because of this difficulty of holding the many elements of the instinct experiences in attention that those special elements in emotion which involve

[1] *Psychology*, vol. ii. p. 483.

[2] For a consideration of the nature of what is called "feeling" confer Chapter xxii.

true sensational qualities are alone apt to be considered in the analysis of the emotions.

Sec. 12. We have overlooked thus far what may seem to some to be our most distinctive reactive presentations, viz. those which are described as our voluntary states, as our acts of will. This has been done deliberately however, and because these special distinctively reactive states always follow upon certain special states which we may describe as states of inhibition, and as the experiences inhibited are often distinctly not of the reactive type, *i.e.* are not always instinct experiences, it will be more convenient to study these voluntary states in a later division of this Appendix.

Sec. 13. In reference to the activities in the partial nervous systems relating to the reaction of the organism upon its environment we must note that although when we consider them superficially they appear to be reactive only, this is because we consider the system as a whole rather than the activities of the parts in themselves: evidently they are in themselves receptive and reactive in one and the same moment. Correspondingly on the psychic side, while the differentiations of consciousness connected with the reactions of the whole organism are emphatic in connection with our instinct experiences, nevertheless we note that these instinct experiences necessarily appear as stimulated from the great central psychic system at the very moment of this reaction of the organism upon the environment: and beyond this the activities corresponding with the sensational elements in these reactive states, of which we have spoken, are stimulated by these special reactions upon the environment at the same moment that they themselves react in the manner which produces the sensational and other effects in consciousness. It thus appears that each emphasis of this reactive nature is really in itself both receptive and reactive at one and the same moment.

III. The Coordinative States.

A. *Of Ideas and their Groupings.*

Sec. 14. As we have seen, there exists an immensely complex group of minor nervous systems, the function of which is the coordination of the receptive with the reactive minor nervous systems. Within this complex coordinative group the minor systems vary greatly in degree and width of integration. If it is true that neururgic emphases correspond with noetic emphases or presentations, and that the correspondence is thoroughgoing, then we should be able in the first place to trace the existence of a broad group of what we may call coordinative noetic emphases corresponding with these coordinative neururgic emphases. That we do discover such a broad group of coordinative noetic emphases is perfectly clear. When we exclude from consideration both those states of consciousness in which emphatic elements appear which are the correspondents of the receptive activities of the organism as a whole; viz. sensations; and also those in which emphatic elements appear which are the correspondents of the reactive activities of the organism as a whole; viz. instinct experiences; in other words, when we exclude so far as may be all powerful stimulations from the environment and are as nearly quiescent as possible, then psychic emphases or presentations still commonly appear. Although all the distinctly sensational and instinctive experiences are lacking we still have left the realm of thought, a broad field in which appear marked psychic emphases which are coincident with the activities which relate together or coordinate the minor receptive and minor reactive nervous systems. This broad field of coordinative psychic emphases we may designate as the realm of *ideas*, using the word in a broad way somewhat as Locke did.

Sec. 15. If the theory of neururgic and noetic correspondence is true we should discover in experience an indefinitely large array of special forms of ideas which we may group in an indefinite variety of ways according as one or another minor psychic system, within the great coordinative group of minor psychic systems, is involved. And this expectation is evidently met in our experience. Within this broad coordinative group appear emphases as diverse as "after images," and primary-memory-images, percepts, images of percepts, concepts, general notions, etc. None of these appear to belong distinctly to the receptive or reactive groups; nevertheless we discover so many instances of their being connected with, and yet intermediary between, the distinctly receptive and reactive emphases that there can be no question as to their broad general relations as above stated, although they may occasionally appear isolated because they are attended to at times when their related receptive and reactive emphases are not thus isolated in attention.

When we attempt to group these ideas into classes we are naturally led to distinguish them, and to make a rough classification of them, somewhat as indicated in the serial arrangement given in the last paragraph, in accordance with our appreciation of their greater or less attachment to the realms of sensation in connection with which the initiation of psychic emphases commonly arises. "After images" in fact appear to be largely of a sensational nature, but not exclusively sensational; for, as the name we give to them implies, they are very closely bound up with ordinary "images" which are, strictly speaking, quite apart from the sensational realm. The thought image of the glowing orb of the sun is closely bound to the "after-images" of the sun which I have in experience if by chance I look at the sun and then close my eyes: and yet the thought of the sun is far away from the sensational realm, while the "after image" is closely attached to it.

Percepts are usually thought of as involving distinctly sensational elements related in a peculiarly definite manner. Still the bond between perceptual states and the realm of ideas far removed from sensation is so close that we find Stout[1] saying: "When I notice that I am desiring, doubting, impatient, or resentful, these processes do not act on any organ, or produce anything analogous to a sensation. My perception of them is not *sense* perception, but—*it may be appropriately called perception.*"

Our concepts,—*e.g.* man,—are distinctly related to percepts,—*e.g.* individual men,—but they clearly separate themselves away from the realm of sensation with which percepts are so closely identified.

On the other hand we have definite thoughts of emotional conditions, and clear notions of reactive states in general, and of acts of will, which are as closely bound up with the reactive states as our percepts are with sensations.

And then we have a broad realm of ideas which make up the bulk of our thoughts in studious moments, which are neither sensationally nor reactively connected, *e.g.* such ideas as "the theory of consciousness," "virtue," "algebraic function."

Sec. 16. Certain of these ideational noetic emphases are found to be in general more emphatic than the mass of ideas; and these, as we should expect, are those percepts which are most closely bound up with the sensational realm in which vividness is so often marked. The concepts, and general notions, and ideas within the realm of thought in general, are so lacking in emphasis that we find it necessary to remove ourselves from forceful stimuli—from the contact with the world to the quiet of the study—if we are to note their meaning and significance.

Sec. 17. In accordance with the views already presented

[1] *Groundwork of Psychology*, p. 13 (italics mine). Cf. also Stout's *Analytical Psychology*, ii. p. 4.

there must exist at times within the coordinate nervous group certain *combinational* neururgic emphases due to the fact, and which would not appear but for the fact, that emphases of activity in diverse but related nervous minor systems occur coincidently. Correspondingly we should expect to find ideas of a *combinational* nature, if we may so speak, due to the fact, and which would not appear but for the fact, that noetic emphases in diverse but related minor noetic systems occur coincidently.

Such combinational emphases within the realm of ideas we clearly do experience. Concepts are of this nature. As Stout[1] says "A concept is not a mere faded mental picture: 'the fading'. . . must be of a certain kind and be due to certain conditions; it must be such as to produce a generic image. An image is called generic when it possesses a distinct and salient centre or core corresponding to the common characteristics of this class, together with a vague and inconstant margin corresponding to the specific features of the individuals composing the class." Evidently the noetic emphasis described in this passage as "a distinct and salient centre or core" is a special noetic emphasis due to a coincidence of related but diverse noetic emphases, and which would not appear but for the existence of the latter.

In the case of concepts the special emphasis above referred to is appreciably bound to the emphases to which its existence is due: the "core" is appreciated as closely related to the "vague and inconstant margin corresponding to the specific features of the individuals." It is not easy, for instance, to have in mind the concept "man" without a constant tendency to appreciate the characteristics of special individual men.

But we experience many ideas which are resultants of other ideas in connection with which what Stout calls the "margin" is not noted. Such noetic emphases,—such ideas,—as "theory of consciousness" as "virtue" are clearly specific

[1] *Analytical Psychology*, ii. p. 179.

noetic emphases the resultants of other ideas, and which would not be but for the existence of these other ideas, but which differ from the concepts referred to in the previous paragraph in the fact that they are very clearly distinct from the ideas upon which they depend for their existence, and do not necessarily suggest any specific ideas of this class.

Of this same general nature are those special and highly important presentations which are bound up with all "ideas" and which when isolated as it were, and considered in themselves, we describe as "meanings." Each meaning is very clearly *sui generis*; it would not exist but for the existence of that to which the meaning attaches, but it is of a nature that can seldom be traced back to any primary presentation.[1]

And when we consider the matter carefully it seems clear that the main body of our thoughts are presentations which involve no "images" whatever.[2] In fact our mode of approach leads us to see that each presentation or noetic emphasis must necessarily be *sui generis*, and that we have no more right to assume that all our ideas are of the nature of images than we have right to assume that all our images are of a sensory nature, are "washed out sensations," a point which we have discussed fully in a previous chapter.

Sec. 18. What we have considered in the preceding section becomes clearer when we note that certain of these combinational noetic emphases must be due to *relations* which often occur in connection with a very great variety of special noetic emphases, and must come to have a recognizable specific character of their own, involving in their turn specific emphases within minor noetic systems; and these, as we have seen in Chapter IV., are what are usually now-a-days spoken

[1] Confer R. F. A. Hoernle, *Mind*, N.S. 61. Also Bradley, *Appearance and Reality*, p. 51.

[2] Confer R. S. Woodworth, "Imageless Thought," *Journal of Philosophy*, etc., iii. 26. Also his "Consciousness of Relations," in *Essays Philosophical and Psychological*, in honor of William James.

of as "feelings of relation," or what I call "senses of relation"; concerning which it is unnecessary to speak at length except to refer the reader to Professor James' *Psychology* (vol. i. p. 245), and especially to Professor R. S. Woodworth's notable essay[1] entitled *The Consciousness of Relation.*

As a characteristic example of such senses of relation we may name that peculiar "feel" that we note whenever we deal with what we know as relative terms,[2] which always exist in pairs, *e.g.* father and son: husband and wife, etc., etc. The appreciation of one of the pair implies the other, and this involves a complex presentation of triple emphasis, in which appear the two specific ideas (*e.g.* father and son), and beyond this a further special form of relational emphasis which leads us to give each pair the specific name "related terms." The noetic emphasis which we call the sense of likeness, of which we have spoken above, is also such a sense of relation of a very fundamental character.

We have in fact such senses of relation bound up with the specific emphases which we describe as general notions. There is no such thing as a general image in the sense in which this is often conceived; as Berkeley long ago taught, each image of a triangle, for instance, must be either right angled or oblique angled; *i.e.* each so-called general image is really a single image, but its special character is given by the fact that it is one to which is attached a certain specific "sense of relation." As Miss Calkins puts it,[3] the "generality or conceptual character consists . . . merely in the addition of the feeling of generality to some element or combination."

As we shall see below, our percepts gain their specific character largely by the development in connection with them of one of these senses of relation, viz. the spatial relation.

[1] *Essays Philosophical and Psychological*, in honor of William James.

[2] Cf. James Mill, *Analysis*, ii. p. 6.

[3] *Introduction of Psychology*, p. 223.

Sec. 19. Concepts and senses of relations are naturally the most unlikely forms of presentations to hold attention. They correspond in our wave simile with combinational waves formed by the crossing and overlapping minor waves on the liquid surfaces considered; only when no influence results from beyond these combinational waves are they important in the production of the forms of the psychic emphasis within the noetic pattern of the moment. Thus it happens that we must exclude marked forms of sensations and percepts if attention is to be concentrated upon the flow of thought. We write in the quiet of the night; we soften the light and insist upon silence in our libraries where we wish to think as we read. Where there is a contest in attention between sensation-perception on the one hand, and conceptual trains on the other, the sensation-percept always wins, unless one has especially trained oneself to cut away the sensational-perceptual effects. Indeed to do this persistently and effectively involves an artificial development which may become deeply morbid, as it appears in those whom we call "absent minded."[1]

We should expect trains of thought to be also easily disturbed by the instinct experiences which stand so close to sensations-percepts in degree of influence upon attention. And that this is realized in experience becomes clear when we consider how commonly our emotions override our

[1] It is to be noted also that if we wish to follow a train of thought amidst distractions due to perceptual insistence we are wont deliberately to arouse special perceptual elements which are closely related to the thought elements to which we would give our attention, these former aiding us in overcoming the influence of the disturbing and unrelated percepts. Thus if, while we are adding a column of figures, we are disturbed by sensational and perceptual elements of conversation, we are wont to "add aloud" as we say: that is we call to our aid sensational-perceptual elements which are obviously closely related to the thought elements of the moment, and thus are able to hold the latter in attention as we otherwise could not do.

thought trains, and how often they lead to the warping of the natural development of ratiocinative processes.

Sec. 20. The above considerations involve a definite conclusion in relation to the question suggested in a previous chapter where we asked whether our ideas are always secondary presentations of the type which we describe as recurrences. Our answer to this question from our present standpoint will be found to agree with that already given.

The order of emphases discoverable in successive sensations is to a great extent discoverable also in the realm of thought: for the movement of attention to ideational trains normally follows closely the order of sensational-perceptual experiences. But there are many instances where this evidently is not the case. When for example I attempt, as I am doing in this work, to describe systematically the nature of consciousness the sequence of ideas surely follows no order that has ever been given perceptually. And the more we consider the question the more does it appear clear that this sensational-perceptual order is seldom if ever exactly followed in the ideational realm: for although the movement of attention in the ideational realm does in some measure display an order corresponding with the sensational-perceptual order, nevertheless above this order appear special forms of emphases not found in the sensational-perceptual order.

We now also see the significance of the view maintained in Chapter v., viz. that each noetic pattern is necessarily a new and unique noetic pattern. If this is true, then each emphasis within each noetic pattern is also new and unique, and we should expect *a priori* to find noetic emphases which are in no sense sensational derivatives. As Stout says in relation to another question:[1] "There is no absurdity in supposing a mode of presentational consciousness which is not composed of visual, auditory, tactual and other experiences derived from, and in some degree resembling in quality,

[1] *Analytical Psychology*, i. p. 93.

the sensations of the special senses." I should state the case even more strongly, and should say that, in the light of introspection, and in consideration of what are to-day generally accepted psychological notions, there is every reason to say that such a view as the one here opposed is itself a very clear absurdity.

B. *Of the Spatial Quality.*

Sec. 21. Under certain conditions consciousness acquires a particular character due to the appearance of a special "sense of relation" as an emphasis within experience, a sense of relation that involves the objective-subjective condition of reflection of which we have much to say in Book II. During the course of life a vast number of noetic patterns occur in which this sense of relation does not appear as an emphasis; but whenever we assume the reflective state it does appear as a special qualification of the developed presentation which leads us to speak of it as objective,—as standing over against the rest of consciousness to which also attaches another special quality, which is often merely implicit, but which when it becomes explicit leads us to speak of this rest of consciousness as subjective.

Of all the psychic emphases which have this broad qualification of objectiveness, as objects of reflection—of attention,—a very large proportion (but not all), at times acquire a more special qualification, due to the appearance of another special sense of relation which leads us in our developed life, to speak of them as "objects in the outer world," and this special sense of relation upon which this complex form of thought is based I speak of as the *spatial quality.*

The point here made is brought out clearly in the very fact that in speaking accurately of psychic emphases which have this spatial quality we always add to the word "objects" the words "in the outer world," to distinguish one special class of objects from objects of attention in general. The import

of this generally accepted distinction seems however to be commonly overlooked; for we find the realists of the day implicitly denying that the spatial qualification is a special qualification within the broader objective qualification, in the fact that they hold, as we shall see later, that *all* objects have in them at least the germ of this spatial quality.[1]

That the spatial qualification is a less general one than the objective qualification appears clear however when we consider that in reflection our sensations pure and simple; our reactive states, instinct experiences and emotions; the conative states, desire and impulse; are never considered in any way as spatial; although each and all of them may be considered objectively, that is as objects of attention. They are never considered to be objects in the outer world, although they may be just as distinctly objectified psychic emphases within consciousness as are these objects in the outer world. Whenever objects in the outer world have prominence in our minds the psychic emphases above spoken of (sensations, reactive states, etc.), are always separated away from these objects in the outer world, the former when explicitly considered being described as subjective rather than objective.

As further instances of presentations which clearly have the objective but not the spatial qualification, we may mention such thoughts as "abstractness," or "an hypothesis"; such concepts as "consciousness"; "God" as conceived by those who avoid anthropomorphic representations; "the Absolute." Such universals as Truth, Beauty, Goodness, Value, are all thus considered as objective, although none of them is commonly thought of as in itself having position in space.

In other words the spatial qualification cannot be properly spoken of as a special quality of the first order. It is not possible to say that psychic emphases of which this spatial

[1] According to Avenarius' view for instance "nothing exists save experience; and the fundamental characteristic of the content of experience is space." Confer Norman Smith in *Mind*, N.S. 57, p. 14.

quality is a characteristic are clearly separated away from all other psychic emphases as primary divisions in an orderly consideration of experience. Rather is it true that the spatial quality is a special quality of a tertiary order, so to speak: that is the psychic emphases of which this spatial quality is characteristic are a special class within a broader class of emphases of a second order, (viz. the objective order); which latter is not a general characteristic of all presentations, although it is one of the broadest generality.

Sec. 22. The consideration of the nature of the spatial quality contained in the preceding sections would be sufficient for our purpose but for the fact that the position thus maintained apparently stands in opposition to views held by psychologists of great importance—*e.g.* such masters as James Ward, William James, and Stumpf, who hold that the "moment of spatiality" is an attribute or partial content of sensations. "This material content" says Stout[1] "is supplied by a character especially belonging to tactual and visual presentations, though it is shared also by organic, and possibly in a rudimentary way by other sensations. Extensity is a convenient name for this constituent of our experience of extension."

Dr. James Ward, who gave us the word extensity, was the pioneer in the field of investigation which has led to the adoption of this theory. He and his followers of course make a distinction between extension and extensity, but they all agree in treating this extensity as a "material content" without which the notion of extension and of spatial forms would be impossible. Ward speaks of extensity as an "element of space,"[2] and James in his chapter on the *Perception of Space* in his *Psychology* says "that this element (extensity), discernible in each and every sensation, though more developed in some than in others, is the original sensation of space."

[1] *Groundwork of Psychology*, pp. 85 ff. [2] *Naturalism and Agnosticism*, ii. p. 136.

All this seems to point to the claim that the germ of spatial perception lies in a specific element of our sensational experience rather than in our appreciation of a special sense of relation within the emphasis in which appears the more general qualification of objectiveness. It may be that those who defend the theory thus criticised would find it not incompatible with an acceptance of the view here upheld; but it seems to me that if this is so their language is often misleading, and I think it worth while to present certain objections to the view thus apparently maintained.

Sec. 23. [1]In the first place it seems clear that it is not necessary to assume the existence of such a "material content" in sensation in order to explain the spatial qualification. It is as simple to assume the appearance under certain conditions of a newly formed combinational "sense of relation," *i.e.* the spatial relation,—which is involved with the coincidence of special minor psychic emphases which may be either of sensational or of other types: for the spatial quality is surely not limited to the realm of sensation, as is clear in the fact that many concepts are spatially qualified. The difference between superficial and three dimensional space notions is well held by Dr. Judd[1] to be "not a new content; it is a form in which the contradiction between the dimension attributes of the two groups of sensations is eliminated." "The common factor is not a concrete factor, but it is a relation." And if this is true it is as simple to hold that the more elementary spatial notion is due to a special "sense of relation." In fact Prof. James[2] implies as much where in reply to a critic he says "no one would seriously pretend that the distance (between two sounds) was a sound like that of the notes themselves. Most people would call it a *relation*, intellectually and not sensibly apprehended." If we must resort to such a sense of relation to explain the "distance" between

[1] *Psychological Review*, v. 4, pp. 396 ff.

[2] *Mind*, N.S. 7, p. 364 (italics mine).

sounds, why cannot we explain in the same way the distance appreciated through the field of vision, even if in this latter case "the distance is a thing seen?" What right have we to say that in this case it is not a relation apprehended merely intellectually? And beyond this if the resort to the apprehension of a relation is allowable in any case, as James says it is in the case of sounds, why may we not have in it also the basis for the development of the notion of spatial attributes, not only in the realm of sensation, but in conceptual realms as well?

Dr. James Ward[1] tells us "this much (extensity of sensation) we may allow is original; for . . . we see that no combination or association of sensations varying only in intensity and quality, not even if motor presentations are added, will account for the space element in our perceptions." But it appears to me that we might as well hold that the thought "*between a* and *b*" involves the existence of some original elementary quality which we may call "betweenness" in both the original *a* and in the original *b*. In my view, in the appreciation of extensity, and also of betweenness, we are dealing with different kinds of "senses of relation" which arise when diverse elements are coincidently emphasized, and which do not appear unless these diverse elements are thus emphasized. At all events it appears to me that the view here taken is adequate to explain the facts, and is not open to the objections here noted.

Sec. 24. If the view as to the nature of our appreciation of space as held by the masters above referred to is incorrect, some suggestion as to the source of their error would seem to be called for; and this I find in a failure to make a clear distinction between the general quality which I call manifoldness,[2] and the quality of extensity which they claim to have discovered in sensations. The psychologists who uphold the

[1] *Encyclopedia Britannica*, Article "Psychology," p. 53.

[2] Confer Book II. Chapter IX.

extensity theory have called attention to facts which leave no doubt that each presentation observable in reflection is complex, is an emphasis in which minor emphases appear, *i.e.* that the very simplest of psychic emphases, viz. our sensations, display some measure of manifoldness. And it is very easy for one who is looking to introspection for corroboration of the extensity theory to mistake this manifoldness for the extensity for which on *a priori* grounds he is looking.

It may be agreed, as we shall see in a later chapter, that manifoldness is a general quality discoverable in connection with all psychic emphases; but clearly the spatial quality is not such a general quality, for we discover certain presentations which are not spatially qualified. If manifoldness is a general quality it must to be sure be appreciable whenever the appearance of the special spatial quality is distinct, but this latter may best be looked upon as a quality which is determined by the coincidence of certain elementary forms within the field in which manifoldness is appreciable.

Sec. 25. By the relating together and the coordination of the great body of psychic emphases to which is attached the spatial relation we men gain the conceptions of extension, of the outer world, and of space itself. The study of the means by which these conceptions are developed has, as the reader knows, occupied the attention of the foremost thinkers in the past, and is still the subject of much minute and careful study. It would carry us far beyond the limits of this work to attempt even to summarize the results of these studies and no attempt will be made to do so.

We may note however that much has been made in late writings of the intrinsic social reference of all our notions of the physical world, that is of the world outside of us in space. That the spatial quality which we are here considering is a very special sense of relation is in truth clearly shown in the fact that in some way or other it is especially bound up with the recognition of the existence of other human individuals

than ourselves, and with a notion that the experiences of these other selves correspond with ours. To take an example suggested by Prof. Royce; the rainbow is thought of by the uninstructed man as part of the outer world of objects, like the falling rain or the sun in conjunction with which it appears; but as soon as I recognize that each man's rainbow is a special rainbow, as appears clear as the result of the teachings of science, and of careful study of the location of several men's rainbows in relation to fixed objects in the landscape; then at once all emphasis of the spatial quality is lost,[1]— then at once I think of the rainbow as an experience of mine, as contrasted with, and not as an object in, the outer world.

Nevertheless it may well be true that this special spatial relation is bound up with the very intricate and complex relation in which my consciousness stands with other conceived consciousnesses, and yet not true that this recognition of other consciousnesses is of the essence of the spatial quality with which is bound up our appreciation of objects in the outer world; and I cannot feel that the evidence warrants us in going so far as Prof. Royce[2] for instance does, in holding that "it is social community that is the true differentia of our external world"; or in holding with Miss Calkins, that "the external world is the world of society as opposed to the world of the lonely self" of the imagination.[3] In taking such a position one is surely examining a special case of a highly complex nature not the simple cases of every day experience.

There is one fact which goes a long way to warrant our hesitancy in accepting the doctrine here considered.

[1] Introspective examination compels me to deny that the spatial quality disappears altogether.

[2] *Philosophical Review*, Sept. 1894, p. 530.

[3] Miss Calkins herself points out that imagining is "indirectly . . . a social experience, as the denial that it belongs to others is a recognition of their existence" (*op. cit.* p. 189).

Thoughts, and certain conceptions (as for instance the theory of the origin of species), are appreciated as involving their recognition by other selves than our own, they are looked upon as public property just as much as are objects in the outer world; but surely the common man does not think of these thoughts and concepts as objects in the outer world as he should do if the theory above referred to were correct; for just so far as they are appreciated as public property they appear to belong to all of us, and hence should under the theory here considered be spatially qualified as belonging to the external world. Boris Sidis[1] agrees that a "percept is not experienced as external because it is common to other people"; and we may note with him that "an hallucination is as fully a percept and is perceived in the full garb of external reality, although it may have no currency with my fellow men. The percept possesses the co-efficient of external reality, no matter whether or no others can share in it."

That the bond between the external world qualification and the appreciation of the existence of other selves is strong however, as we have already agreed, is made very evident in the fact that early Realists clearly did tend to give an object-in-the-outer world qualification to their concepts, and that the common man continues to do so in relation to such concepts as Beauty, Goodness and Truth.

I am willing to agree that as things are constituted the social relation is of the utmost importance in the constitution of my notions of externality: but there seems to me to be every reason for holding that if I were the only man living, or who had ever lived, and were fully developed intellectually, I would now perceive objects as "in an outer world"; and

[1] *Psychological Review*, xv. 2, p. 119. We may agree with this statement in relation to hallucinations without accepting Mr. Sidis' view (p. 120) "that we perceive the flower as an external reality simply and solely because it is *sensory* . . . External reality is given directly and *immediately* by the sensation or by the sensory compound, by the percept."

that in the main they would then have for me spatial qualifications substantially of the form existing for me as a social being.

IV. The Inhibitive States.

Sec. 26. As we have already seen each noetic emphasis has a conative aspect in that it involves a movement beyond itself. Thus to each noetic emphasis or presentation belongs a natural form of development. We shall here consider certain more or less general forms of presentations which are determined by the inhibition of this natural development of noetic emphases.

These emphases in their very nature must involve complex minor emphases, among which must appear prominent (1) an emphasis of the presentation the development of which is inhibited, and (2) a broad systemic emphasis corresponding with the reactions accompanying the effort of the system to break down the obstruction to the natural development of the emphasis inhibited. This latter broad systemic psychic emphasis or presentation must be of the nature of instinct experience: and as our emotions are instinct experiences we should expect to find ourselves naturally tempted often to class these inhibitive states as emotional; at other times again we might be expected to take especial note of their conative aspect referred to in the opening paragraph of this section. As we shall see in what follows these modes of classification of the inhibitive states are very common.

A. *Impulse.*

Sec. 27. As a matter of convenience we may consider first the presentations determined by the inhibition of instinct actions.

We act instinctively during our daily life usually without paying any attention to the instinct experiences corresponding

with the instinctive acts: but at certain times, when for one reason or another a natural instinct action is inhibited, there occurs an emphasis in consciousness which we designate as an *impulse*.[1]

If I am suddenly confronted with a snake in my path, and quickly strike at it with my golf club, I appreciate the instinct experience which accompanies the instinct action. But if I am prevented from striking by the pressure on my arm of the strap of my bag, or by the restraining hand of my friend, or even by the words of my friend who calls out "don't kill the poor thing, it is harmless;"—then I experience what I call an impulse to strike.

This example gives a clear cut case: but there are cases where the activity which is inhibited is less clear and broadly diffused and which we speak of as blind impulses (Triebe) or as cravings, as they shade away from the nature of clearly defined impulses. This means that certain of the states due to inhibited instinct actions, *i.e.* the cravings, do not involve any marked emphasis of (1) the inhibited presentation referred to in the second paragraph of Section 26; that others, *i.e.* the

[1] Confer my *Instinct and Reason*, pp. 341 to 344. The word impulse is used by those concerned with the mechanical sciences to refer to mere mechanical impact. This is unfortunate for the psychologist, for the word has gained an established currency in psychological and ethical writings to refer to a specific form of conscious experience, and no little confusion arises among writers in these latter fields in consequence of the mechanical connotations of the term. It is thus that we often carelessly use the word impulse, with a quasi-mechanical connotation, in place of the word instinct. Men often speak of acting impulsively, when they mean that they act instinctively, intending also to suggest that they act "automatically" in the sense of mechanically. Where we use the word impulse in what follows we must be understood to refer exclusively to that state of experience to which the introspective-psychologist refers when he uses the term.

As the result of further consideration I have become convinced that my use of terms, and my analysis in reference to this subject, as given in my earlier works was in some particulars faulty. Where differences appear I prefer to be judged by my present statement.

clear impulses, do involve a marked emphasis of the inhibited presentation; and that there is a class between the two, *i.e.* blind impulses, in connection with which this inhibited presentation is overlooked, although very easily discerned in reflection. In other words the impulses have clearly defined objects, while the cravings as clearly have not.

Physiological consideration has taught us that cravings may be produced by the mere deprivation of a stimulus to activity which is usually somewhat rhythmically recurrent: the stimulation to activity in the digestive organs and their related parts which is given as the result of the process of eating, if not recurrent in its normal rhythm, gives us the craving of hunger. Or cravings may arise where systemic development, determined by heredity, brings capacity to act in combinations of organs which fail to act only because they await an unexperienced stimulus: the most notable instance of this type is given in the sexual cravings which arise with the approach of the age of puberty.

The relation of the cravings to the instincts becomes clear when we consider that as certain of our instincts are congenital and others deferred, so certain of our cravings are congenital (*e.g.* hunger and thirst) while others are deferred (*e.g.* the sexual cravings).

The psychic elements distinguishable in these cravings consist of broadly systemic painful elements coupled with what we call a sense of uneasiness, which latter may be supposed to be the psychic counterpart of the tendencies of accumulated, yet restricted, energy to work itself off, if we may so speak, in channels that are free, and which may lead indirectly to activities resulting in the satisfaction of the craving. The painfulness is due to the mere restriction; for all restriction of activity for which we are prepared, and which is either directly or indirectly stimulated, is painful.

Whenever the instinct action which would develope were the inhibition removed appears in any measure clear as a

presentation, then the craving developes into an impulse of a corresponding measure of clearness. The vague cravings of hunger develope into impulses to grasp food and to eat.

Prof. James has brought out clearly the relation of impulse to instinct in his chapter on *Instinct* in his large *Psychology*. In my view however he had been led, by the use of current terms as referred to in the footnote Section 27, to an inaccurate statement where he says (vol. ii. p. 385) "Every instinct is an impulse." The relation between instinct and impulse is in my view more correctly stated if we say that each impulse implies the existence of an instinct, and that the existence of an instinct implies the possibility of the appearance of an impulse if the proper conditions are given.

Sec. 28. As we should expect from what has been said at the close of Section 26, we find a common agreement among psychologists that our cravings and impulses are of a conative nature. But, as we should also expect, we find ourselves naturally including our impulsive with our emotional states when we do not stop to make careful classifications.

B. *Desire-Aversion.*

Sec. 29. If the substance of the preceding sections is true then we might expect to find within the coordinative states, *i.e.* within the realm of ideas, certain presentations closely related to the impulses;—that is we might expect to note the appearance of states closely related to the impulses where the development of specific ideas is inhibited.

Now the inhibition of the development of one idea by the development of an incompatible idea is the commonest of our every day experiences, and one which for the most part passes unnoticed. But where the inhibition is maintained for a sufficient length of time to enable us to reflect upon the two incompatible ideas, then the incompatibility brings into prominence the failure of realness in each of the ideas, and

we have the condition of doubt, to which we refer more fully later.

But we have a specially interesting case where such an inhibition developes a presentation of multiple emphasis in which appears an idea as realizable, and yet as not realized.

In such a case if the emphasis is upon the possible realization of the idea in the future, and if no action of the empirical ego is explicit, we have what we call mere anticipation; in which case the unrealized idea developes as though it were realized. And when we explicitly recognize the empirical ego as bound up with the realness of this idea to which futureness belongs we have as we see in Book II. what we call expectation.

When the expectation is inhibited we experience a special painful experience of an emotional nature which we call a disappointment.

Sec. 30. But a very special form is given to the psychic emphasis of the moment when the empirical ego is apprehended as welcoming the realization of the idea which is recognized to be at present unrealized; and this gives us what we call desire.

Another very special form is given to the emphasis when the empirical ego is recognized as rejecting the realization of the at present unrealized idea; and this gives us what we call aversion.

It is clear from the above that a very close relationship exists between expectation on the one hand, and desire and aversion on the other, to which I refer below.

Where the realization of the idea is recognized as possible under certain conditions which cannot at the moment exist, then what would otherwise be a desire becomes a wish.

The nature of desire-aversion is so important to ethical theory that it seems worth while to consider its nature somewhat at length.

Sec. 31. If what we have said above is true, desire appears to be a complex emphasis which always contains three elements:

A. A painful emphasis due to systemic obstruction, of effort by the system to force channels for the "pent up stream of action" (Ward), using the word action in the broadest way; *i.e.* of effort to get around the restriction to the realization; which painful emphasis is of the nature of a craving: and

B. A persistent image of the realization of an unrealized objective idea. We learn by reflection that if this idea were realized the result would be the relief of the desire painfulness; but neither this act of reflection nor its outcome is necessary to the desire.

C. To this is added, in all cases where desire is clear and explicit, the appreciation of the welcome by the empirical ego of the realization of the unrealized idea. This appreciation of the action of the empirical ego in desire is not always clearly explicit.

Aversion on the other hand appears to be a complex emphasis which always contains three elements.

α. A painful emphasis due to systemic obstruction, as above described:

β. A persistent image of the realization of an unrealized objective idea; and

γ. The appreciation of the rejection by the empirical ego of the realization of the unrealized idea; which appreciation is not always clearly explicit.

Both desire and aversion thus involve in the persistent image of an unrealized idea the marked emphasis (1) of the inhibited presentation which is commonly spoken of as the object of the desire or of the aversion.

Sec. 32. As we have seen in Section 26, we should expect to find conative and also emotional characteristics

attributed to desire-aversion, and that this expectation is met I think will be granted.

In this connection it may be well to say a few words in regard to the relation between desire and aversion and our emotional states. Desire whenever it works itself out does so in the direction of love; and aversion whenever it works itself out does so in the direction of hate in its milder or stronger forms: and this is so common an occurrence that the common man is wont to identify desire with love, and aversion with hate. In revulsion from this inaccurate view of the common man which has had too careless a following among psychologists, I have been led in my earlier works to make a stronger distinction between the states of desire and aversion on the one hand, and longing and hatred on the other, than I now think warranted.[1]

When desires and aversions are satisfied the inhibition is removed, and the natural result is the occurrence of instinct actions, and their corresponding instinct experiences, of which as we have seen emotions are a special type. It is natural therefore that the close relation between our emotional states on the one hand, and desires and aversions on the other, should have led to a failure to differentiate the two classes of experiences.

But that emotion is not of the essence of desire and aversion is clear in the fact that while most of our experiences of desire and aversion have a distinct emotional tinge, such is not always the case. Desire for knowledge, aversion to vice, for instance have little if any emotional attachments.

Sec. 33. The definition which I have above given of desire stands in opposition to that given by a large number of our psychological masters who have held that the appreciation of pleasure to be obtained in the realization of the idea is of the very essence of desire. The question as to whether the

[1] Cf. my *Instinct and Reason*, pp. 352 and 353, where I used the term aversion as descriptive of the fully developed emotional state.

existence of an appreciation of pain to be avoided is of the essence of aversion has for the most part been passed over without discussion ;[1] but we shall find it convenient to consider this also. We may turn then to the discussion of the relation of pleasure and pain to desire and to aversion.

Turning our thoughts in the first place to the relation of desire to pain and pleasure it may be noted that practically all psychologists agree that there is a sense of tension (which necessarily involves a measure of pain) in both desire and aversion ; although certain writers, in their ardent defense of the importance to desire of the appreciation of pleasure to be gained by the realization of the idea, have minimized, or even overlooked altogether, the presence of this painful tension in desire.

Not a few psychologists, however, especially among the Germans, have held that this sense of tension is the only essential element in desire. But this view cannot be maintained without identifying expectation and desire, which certain writers have indeed not hesitated to do in the interest of the defense of their doctrines. But the fact that we often expect what we do not desire, and often desire what we do not expect, of course negatives this notion.[2]

Sec. 34. The most important point for our consideration in this connection however is the relation of desire to pleasure.

It must be granted in the first place that the satisfaction of a desire always gives pleasure, for the removal of an inhibition always involves a free activity which carries pleasure with it. It must also be agreed that the idea of pleasure to be gained must necessarily thus very often become

[1] And this notwithstanding that aversion is often spoken of as a positive state closely allied with desire. Confer Bradley, *Mind*, xlix. pp. 21 and 22.

[2] Confer Bradley, *Mind*, xlix. p. 16. Bradley in my view is right in his opposition to this position : but as I shall presently attempt to show is wrong in his explanation of the difference between expectation and desire.

closely attached to the object of desire. But that the idea of the pleasure to be gained in the satisfaction is of the essence of desire I think cannot be maintained. In this view I stand in opposition to a great band of notable psychologists.[1] But it may be modestly held that even eminent thinkers may have misinterpreted their introspection, and may have been led astray by the fact above mentioned that, as the satisfaction of desire always gives pleasure, the idea of pleasure to be gained must necessarily usually become closely attached to the object of desire.

One who takes my position finds encouragement however when he notes that Hume[2] is on his side, and that John Stuart Mill[3] also saw this point clearly, and after allowing for all arguments to the contrary called attention to the fact that "it is at least certain that we gradually, through the influence of association, come to desire the means without thinking of the end; that action itself becomes an object of desire." If it is allowed that there is one single exception to the rule the case must be judged in favor of the side I uphold. But the case is made clear in my view in the fact acknowledged by Sully[4] although in a somewhat regretful way, "that we desire many things, *e.g.* knowledge, virtue, other's happiness, without at the moment thinking of the attainment of the objects as pleasure-yielding." Unless some denial of this fact is forthcoming it seems little else than absurd to persist in the reiteration of the view here opposed. It were more to the point to attempt to account for the ground upon which it has been held, and to explain the nature of desire without dependence upon it.

[1] *E.g.* James Mill, Bain, Sidgwick, Martineau, L. Stephen, Volkman, Waitz, Lehmann, and F. H. Bradley. Confer my *Pain, Pleasure, and Aesthetics*, pp. 281 ff.

[2] Hume's position in this respect is often misconstrued. Confer *Mind*, N.S. 55, p. 338.

[3] *Logic*, Book 6, ch. ii. 4.

[4] *Human Mind*, ii. p. 204.

It is true of course that what we call the realization of pleasure may be, and very often is, the object of desire; although I would hold that this is not invariably the case. But it must be remembered that this object of desire which we call a pleasure is always an idea of a pleasant something, a pleasant act or sensation, for instance; and that such an idea is not a "represented" pleasure[1] (for a pleasure as such can only be a quality of the given moment's experience), but is an idea of something to which the word or thought "pleasure" has become closely attached; and this "pleasure idea" as a present experience may be pleasant, but on the other hand it may not be.

Sec. 35. Turning now to the relation of aversion to pleasure-pain we may note again that here as in the case of desire there is a tension which must be painful in some degree. Beyond that we must grant that if an object of aversion is realized it will usually bring pain in its realization. But it is too much to hold that in aversion we always necessarily have before us an idea of a pain which is unrealized, in view of the fact that we have aversion for many things, *e.g.* ignorance, vice, the unhappiness of others, without at the moment thinking of the realization of the objects as pain giving. But this point is not insisted upon even by those who claim that the object of desire is a pleasure which is unrealized, although it would appear that such a claim should be made by the defenders of this latter notion if they are to

[1] As I have said in my *Instinct and Reason*, p. 541, we can no more have a revival of a pleasure apart from a content which is pleasant, than we can have a revival of an intensity without a somewhat that is intense, or a revival of a special degree of realness without a somewhat that is real. So far as we think of pleasure, and of intensity, and of realness, except as attached to some "content," we are not considering the experienced qualities themselves, but abstractions,—ideas of pleasure, of intensity, of realness, which are themselves "contents" which have as such some measure of intensity, realness, and pleasure or pain. Confer further *op. cit.* pp. 542 and 543 ff.

be logical: the weakness of their view is again shown in the fact that they must close their eyes to this very evident fact if they are to maintain their position.

It is true of course that what we call the realization of pain may be, and very often is, the object of aversion. But it must be remembered that this object of aversion which we call a pain is always an idea of a painful somewhat,—a painful act or sensation, for instance; and that such an idea is not a "represented" pain (for a pain as such can only be a quality of the given moment's experience), but is an idea of something to which the word or thought "pain" has become closely attached; and this "pain idea" as a present experience may be painful, but on the other hand it may not be. The "idea" of the pain attending the reduction of my dislocated shoulder some years ago, as occurring in to-day's remembrance, is not in the least a painful experience.

Sec. 36. Let us now consider for a moment the relation between expectation, and desire and aversion. Desire, as we have seen, is identified with expectation by those who would make the sense of tension the essence of desire. But Mr. Bradley is certainly right in holding[1] that something must be added to this tension if we are to have desire, although in my view he is wrong in thinking it is merely the idea of pleasure that is added. In this connection we may note that, strange as it may appear, we find little said by writers upon this subject concerning the relation of expectation to aversion which is so evidently correllated with desire.

The basis of the connection between both desire-aversion and impulse, and expectation, is found in the fact that in desire-aversion and in impulse we have more or less clearly developed the conative aspect of presentations (see below): that is to say we here evidently have an emphasis of what we call the spontaneity of the psychic system which as we see in Book II. naturally tends to induce an emphasis of developing

[1] *Mind*, xlix. p. 16.

complexity, and therefore a sense of futureness, within the presentative field. And this sense of futureness will often gain a relative stability or realness as the result of this systemic spontaneity which will result in the appearance of clear cut cases of expectation. This accords with the experience of every man: for we all realize how far our desires influence our hopes[1] and our expectations; and that our impulses have a forward—a future—trend is also apparent.

The basis of the distinction between both desire and aversion, and expectation, seems clear. In expectation we have, as we have seen, realness given to the presentation which is real by its attachment to,—its partial assimilation by—the empirical ego; but where we do not have either desire or aversion, and do have expectation, the future realness appears as forced upon us without regard to the welcome or rejection of this realness by the empirical ego.

In desire and aversion we have an explicit sense of tension. But in mere expectation the tension is not emphatic; for while it exists in a degree it is not enforced by the opposition of the emphasis of the fact that the idea to be realized is not realized: and it is further lessened by the relatively free unfolding of the idea in imagination as we say; the idea developes its relations almost as if it were actually realized. When the tension is brought into existence by the recognition that the idea is not realizable, then expectation gives place to disappointment.

But in desire, and also in aversion, this tension is increased by the presence in attention of the opposition between the idea as possible of realization and yet as not realized; and to this is added the welcome or the rejection respectively by the empirical ego.

[1] Hope is a state of vibration between expectation and non-expectation. Its emotional quality is determined by the alternative spontaneous reactions and repressions which are involved, giving us experiences respectively of elation and depression.

It thus happens that what we expect we may also desire or have an aversion for, when in a transition of thought the welcome or rejection of the idea becomes manifest. But we may also expect that for which we have neither desire nor aversion: and so also we may desire what we do or do not expect: the desire being determined by the appreciation of the welcome of the realization of the unrealized idea by the empirical ego, which may or may not exist. And in many cases this action of the empirical ego is effective in producing so great a measure of realness in the idea still unrealized that the tension is removed, and the unrealized idea developes as it does in expectation. It is thus that our desires often lead us to quite unwarranted expectations.

And correspondingly it happens that we may have an aversion for what we expect, and also for what we do not expect; the aversion being determined by the appreciation of the rejection of the realization of the unrealized idea by the empirical ego. And in many cases this action of the empirical ego is effective in producing so great a diminution of realness in an idea which is about to be realized that we come to lose all such expectation as would normally be developed in connection with the idea. It is easy for instance for a man who knows that he has a mortal disease to disregard all his symptoms of decline and to refuse to expect death.

It is true that expectation easily passes into desire; but it is to be noted that it as easily passes into aversion. And it is true that the thought of the pleasure to be gained may bring about the welcome by the empirical ego which constitutes the state one of desire; but this welcome, as we have seen, may be otherwise induced. And it is true that the thought of pain to be gained may bring about the rejection by the empirical ego which constitutes the state one of aversion; but this rejection, as we have also seen, may be otherwise induced.

C. *The Will Act.*

Sec. 37. We have spoken above of desire-aversion and impulse as conative states, and although this subject will be more fully considered in Book III. it seems necessary to say a few words here in relation to conation in general in order to make clear the nature of that most marked of our reactive states the act of will.

Our conative experience may be described as a special form of psychic emphasis due to the struggle to overcome the inhibition of the free movement from stimulation to reaction, in whatever part of the psychic system it may be emphasized as the result of the inhibition. In a complex system of systems, such as is the great neural system in man, there can seldom arise any marked activity which is not more or less inhibited: hence, if the above statement is correct, correspondingly in consciousness we should expect to experience very broadly the special differential state which we know as conation; and that this is a fact is attested by the general conviction in the minds of modern philosophers of the wide spread occurrence of conative experience.

Conation is often spoken of as will. But such a use of terms is to be deplored as it often leads to misunderstanding. For the average man when he thinks of will thinks of some specific will act as we call it,—some volitional experience,—of which we shall presently speak.

Sec. 38. Desire-aversion and impulse inhibitions may be broken down by the natural enforcement of the idea in the case of desire or aversion, or of the instinct experience in the case of impulse. Then we gain quite naturally the satisfaction of the desire or relief from the aversion, or we act as impelled by the instinct.

This outcome must often be due to the enforcement of idea or instinct experience by the implicit efficiency of the psychic system. When this becomes explicit then we will

gain a recognition of the presented empirical ego as efficient in giving the satisfaction of desire or the relief from aversion, or in performing the instinctive act.

The desire case is here closely allied with situations where there is the mere appreciation of the inhibition of the development of an idea, and of the forcing of this development by the system as explicit in the empirical ego, in which situations we appreciate the sense of effort in attending, of which we speak more at length in Book III.

Sec. 39. Let us for the moment treat of impulse apart from desire-aversion. The inhibition which brings the impulse into existence may be caused by objective opposition; as in the restraining of the instinct action, in the example given above, by the hand of my friend upon my arm, or even indirectly by his spoken word. Or the inhibition may be due to the appearance of tendencies to the development of two incompatible instinct actions, and then we experience two opposed impulses. It is in connection with this type of inhibition that our impulses become most marked.

If in such cases one of the tendencies naturally developes more power than the other; then one impulse is carried out into its appropriate instinct action, and in that fact the impulse related to this instinct action disappears as such, being replaced by the instinct experience corresponding with the instinct action: the other impulse of inferior power remains, protesting for a time perhaps against its conqueror, but in most cases being lost as a psychic emphasis as the result of the development of the noetic patterns resultant from the effective instinct action.

Thus at this moment if I stop to think of the exhilarating morning air I find aroused in me two incompatible impulses, one pointing to a long cross-country walk, the other to the work involved in the revision of this chapter. The tendency to continue my writing prevails, and the impulse to write this sentence disappears in the fact that I am thinking and

writing; it is replaced by the moderately pleasant activities connected with this thinking and writing. The impulse to take my long walk on the other hand remains noticeable in the background of the field of attention as I now write, but it will soon fade away as my writing and reading engrosses me.

Sec. 40. When the two incompatible impulses remain balanced because the tendencies to the development of each of the incompatible instinct actions is closely balanced, we have the deadlock of hesitancy. When this neururgic deadlock is broken by some influence coming from the undifferentiable mass within the neururgic system, then on the psychic side we have the deadlock broken by some influence from the Self: and, when this influence becomes explicit, we experience the efficiency of the empirical ego in making one of the opposed instinctive tendencies effective. When this experience carries with it an idea anticipatory of the act to result from the resolution of the deadlock, then we call it a volitional act, or an act of will: we act voluntarily when, having in mind the diverse acts which will result from the submission to the two opposed incompatible impulses, the empirical ego welcomes the one and at the same time rejects the other.

Sec. 41. In the action of the neural system coincident normally with the act of will in relation to impulse we have the development of relatively violent instinct actions; and therefore we should expect to find in such acts of will an emphasis of those elements of attention which we have found to be characteristic of our instinct experiences in general. In other words in moments of analysis of our volitional reaction, as is the case with instinct actions in general, we should expect to find our attention fixed upon the sensational elements due to reactions of the system, as these reactions affect the system as a whole: that is we should expect to find the elements of attention in an act of will closely allied

to those which have led to the emphasis of the "back stroke" by James and Lange in reference to emotion. That this expectation is realized is of course clear; for it is upon this emphasis that depends the theory of will which has found so notable an exponent in Dr. James, who identifies the "psychic state which is the forerunner of our voluntary acts" with the "anticipatory image of the sensorial consequence of a movement, plus (on certain occasions) the fiat that these consequences shall become actual"; and who identifies the sense of willing with those sensational effects which we call our "feelings of effort."

In this the reader will note that I find but a partially correct view. The "feelings of effort" are in truth the most emphatic elements of attention in the impulsive volitional act; they do not however appear clearly sensorial in the realm of desire-aversion; a fact that seems to be overlooked by the defenders of the doctrine criticized. Here, as in all moments of our conscious life, we are dealing with the coincident of the total throb of the psychic system which determines the nature of the presentation of the moment.

Sec. 42. If what we have said above is correct then we should expect to note with equal clearness that desires or aversions are most clearly observed when two incompatible desires or aversions appear; and we should also expect to note as close a relation between desire-aversion and the will act as we have noted between impulse and the will act.

In the case of both desire-aversion and the will act the welcome or rejection by the empirical ego is involved; but in the case of the will act there is a contest between incompatibles, and a clear anticipatory idea of a change of situation, which is not present in desire-aversion. The latter however quite naturally often leads to volitional acts.

As we have already indicated the character of the will act in relation to conflicting impulses in the preceding sections we need not here enlarge upon its like character in

relation to conflicting desires or aversions, especially as we shall discuss the whole matter when we consider the nature of the empirical ego in Book III. In general we may say that the act of will is a special form of experience that arises when there is an opposition of two incompatible ideas, desires-aversions, or impulses, each of which inhibits the development of the other. The will act is the rejection of the one and the welcome of the other of the two incompatibles by the empirical ego. "We may speak" as Bradley[1] says "of a permanent or standing will for a certain end, and may talk as if it existed there where at the moment no actual volition is present." But in such cases we are speaking of conditions or characteristics which appear in an objective view and are not referring to subjective experience. As we shall see below we speak very much in the same way of objectively noted conditions of stability, which we are wont to call beliefs when they are merely conditions which are liable to produce beliefs.

There is in fact no such thing as a human will that chooses, it being altogether as proper, as Locke[2] says, to say that "the singing faculty sings, and the dancing faculty dances, as that the will chooses." What exists is conative experience in general, and, as a special case of this conative experience, the will act.

The act of will, and voluntary action, are descriptive terms for one and the same experience. The act of will would be impossible but for the inhibition which produces the emphatic conative experience. It is due to the fact that this inhibition is effective to produce a momentary balance and cessation of reaction, which balance is broken by the increase of efficiency in some of the elements which are stimulated to action within the complex system, this increase of efficiency being due to influence arising not within the field of attention but within

[1] *Mind*, N.S. 44, pp. 437 ff.
[2] *Essay*, bk. ii. ch. 21, 17.

the Self. When this balance appears to be broken by the empirical ego we experience the special state which we describe as an act of volition or an act of will. As this act of volition is due to the efficiency of the Self, as explicit in the efficiency of the empirical ego, we shall refer to it more at length in Book III.

DIVISION II. OF OTHER THAN HUMAN FORMS OF CONSCIOUSNESS

CHAPTER VI

(I) OF CONSCIOUSNESSES SIMPLER THAN HUMAN CONSCIOUSNESS. (II) OF THE LIMITS OF HUMAN CONSCIOUSNESS

I

Sec. 1. EACH man assumes in every day life that there exist other human consciousnesses than his own, and other animal consciousnesses ; and that these are embodied in other human or animal individuals. In connection with the study of the general nature of human consciousness in the previous chapters it may be well to consider briefly the basis of this assumption, and some of its implications.

If we first turn our attention to other human consciousnesses, we note that as the result of a combination of introspective and objective observation we individual men discover that modifications in our consciousnesses are in some way correspondent with activities in those outer-world objects which we call our own human bodies. When, then, we observe in our outer world other human bodies acting in much the same way that our bodies act in connection with modifications of our consciousnesses, we make an implicit judgment that other consciousnesses exist in relation to the other human bodies whose activities we thus observe ; we introject, as it were, consciousnesses into the

human bodies of other human individuals who come within our field of consideration. This process is of course not clearly thought out; but the movement of our thought in analogical lines seldom is.[1]

The common man is likely to say that we have other reason for this assumption than this analogical procedure, in the fact that other men tell us in spoken words of their "states of mind." But it becomes very clear upon consideration that no amount of hearsay evidence would suffice to convince us that these other men are conscious, did we not note that our activities, which are very like their activities, are accompanied in our experience by certain modifications in our consciousnesses. The very speech of others is a type of this activity which we interpret by reference to the modifications of consciousness which go with our own similar speech activities. When for instance I say "yes," I hear the sound of my own voice, and at the same time experience a modification in my consciousness which I describe as the state of assent. When my friend says "yes," I hear the same sounds which a moment ago proceeded from my own body, and I assume that my friend experiences a conscious state closely similar to that which in my own experience I describe as assent. In this way through all the complexities of observed activities in other human bodies we introject into other men conscious states similar to our own conscious states, when they and we ourselves act in the same way, or are subjected to the same stimulations from the environment.

Even when we have reached an established acceptance of the fact that consciousnesses exist in relation to other living human bodies we find, if we consider the matter carefully,

[1] That our knowledge of other's minds rests upon an argument from analogy has of course been recognized by many masters; in modern times, for instance, by Malebranch, Locke, Berkeley and Hume. Confer Fullerton, *Journal of Philosophy*, etc., IV. p. 506.

that we are constantly dependent upon this interpretation,—this argument by analogy,—for our simplest knowledge of the mental states of other men. We agree to describe the conscious states accompanying stimulations of the eye as light sensations; but in the fact that similar stimuli reach your eye and mine I have no evidence that what you call light sensations are what I call light sensations, apart from the fact that I judge by analogy that, as you are very like me, you are to be credited when you say that you have a consciousness very like mine; and that as your eye is very like mine, its stimulation by light must correspond with modifications of your consciousness very similar to the modifications in my consciousness that correspond with the stimulation of my eye under the same light conditions. That this argument by analogy is the basis of our assurance of the existence of consciousnesses in other men becomes indeed very clear in the fact that, as we shall see more fully later on, we do not hesitate for a moment to pass beyond human-kind, and ascribe consciousnesses to the higher animals other than man, although they are entirely incapable of describing to us their mental states if such exist. And if we carry our argument by analogy to its legitimate conclusion we are without question led to say with Professor Jennings[1] that "from the lowest organisms up to man behavior is essentially regulatory in character, and what we call intelligence in higher animals is a direct outgrowth of the same laws that give behavior its regulatory character in the protozoa."

A

Sec. 2. It would perhaps seem unnecessary to give any further space to the consideration of this subject were it not that the acceptance of this argument by analogy as extended to animals carries with it certain implications that are not very generally appreciated.

[1] H. S. Jennings, *Behavior of the Lower Animals*, p. 335.

The conclusion that some of the animals at least are conscious beings whose consciousnesses are simpler than our own was of course reached long before men had any knowledge of the nature of the human nervous system and of its relation to man's conscious states: the existence of other than human consciousnesses had been naturally inferred from data quite similar to those which led men to infer the existence of consciousnesses in their fellow men. But had no such inference been previously made, we, with our newly gained knowledge, would be forced to such a view. For human consciousness, as we appreciate it, appears to be what we speak of as a definitely bounded,—a closed,—system of mentalities: and this psychic system is now very generally acknowledged to be coincident with the activities in what we look upon as a closed neural system. This fact naturally leads to the inference that, as I discover in my fellow man a closed neural system similar to what I know must exist in my own body, so this fellow man must have a consciousness not dissimilar from mine. And this argument carries with it the inference that a consciousness exists wherever we find what we call a closed system of neural activities; and would lead us naturally to believe in the existence of consciousnesses in animals of higher and lower grade, wherever we note in them the existence of any semblance of closed neural systems.

Sec. 3. But if consciousnesses exist in correlation with the active nervous systems of the lower animals, then it appears likely that these animal consciousnesses must be simpler than ours just in so far as the animal's nervous organization is simpler than man's. Furthermore we realize that at birth the consciousnesses connected with our own bodies were psychic systems of less complexity than our consciousnesses as they appear in years of maturity; and that these consciousnesses at birth corresponded with neururgic systems less highly developed than those found

in man at his maturity. It is most natural for us therefore to infer that some animals have consciousnesses which never develop beyond the complexity of human consciousnesses as they appear in early infancy, just because we find in these animals nervous systems which at their maturity never develop beyond forms very like those found in the human embryo.

There are many other reasons in favor of the view here referred to ; but it is not worth while to review them, for few if any in these days hesitate to acknowledge that there are probably consciousnesses of decreasing complexity, corresponding with the decreasing complexity of the nervous systems found in animals as we step to lower and lower grades of organization in the course of our biological studies. Although there is considerable hesitancy on the part of our biologists in the attribution of consciousness to very low forms of life, they have been entirely unable to agree upon any line of demarcation to distinguish the so-called unconscious animal forms from those which they all agree to be conscious.

B

Sec. 4. But if we make the acknowledgment that consciousnesses exist in correspondence with neururgic systems of less complexity than those which appear in man, then we are quite naturally led to certain considerations of great interest in reference to human consciousness itself.

If as we have just said human consciousness is a closed psychic system, corresponding with the man's closed nervous system, then disconnection seems to mark the individuality of systems of mentalities which we call consciousnesses. Now we find within the human body certain minor nervous systems which are parts of the whole complex nervous system,—minor systems which correspond in complexity more or less closely with the whole fully formed nervous systems of certain of the lower animals which we are accus-

tomed to look upon as conscious beings. It would appear therefore that if these minor nervous systems within the whole nervous system of man could persist as such, and yet be placed out of relation to the whole system of nervous systems, they would then be themselves closed nervous systems, and we would have a right to assume that their activities would still remain coincident with consciousnesses of lower grades of complexity than human consciousnesses, as these are known in reflection.

Now it is clear that many of these minor nervous systems in man do often persist as such, although they are placed out of relation with his nervous system taken as a whole. We recognize the fact that there are minor nervous systems within the human body (*e.g.* the sympathetic nervous system), which are at all times so nearly separated from the whole of the individual's complex system of nervous systems that they appear for the most part to act quite independently, although at times they distinctly affect the action of the whole system of systems, and are distinctly affected by it. We recognize also that there are within the human body other minor nervous systems (*e.g.* the ganglia of the spinal cord), which in normal life are practically disconnected from the system of nervous systems taken as a whole, and which may, under certain conditions resulting from pathological deterioration or from the use of the surgeon's knife, become actually fully disconnected, and this without failing to persist, and to act, or "express themselves," as minor systems.

Suppose you were shown a frog with its head covered so that it could not be disturbed by your movements, and fastened with tapes to a board, but with both legs free. Now if I were to put a drop of weak acid say on its right knee, it would promptly rub the acid off with the back of the right foot. But suppose I fastened this right foot down with tapes, or disabled it permanently, and then again touched the right knee with acid ; then the right leg would

struggle in the attempt to rub off the acid as it did before ; but being unsuccessful because of the binding tapes or injury, after a moment of quiescence or hesitation, it would rub the acid off with the foot on the other side, *i.e.* the left foot. The common man would be likely to say, off hand, that the frog displayed a good deal of intelligence in this.

But now suppose I remove the head bandages and show you that the frog's head, and with it its brain, had been entirely removed. Experiments show that the frog will act in exactly the way above described if its brain is extirpated. When you discovered this fact, if you made any remark, you might properly say " what a high degree of intelligence is involved with the mere activities of the spinal cord." The average biologist, to be sure, says not this, but rather " unconscious reflexes simulate the actions due to intelligence " : but I submit that he does this solely because of his preconception that the activities of the cortex of the brain are alone concerned with our conscious states. The very argument by analogy which leads you to say that other men have consciousnesses because they act thus and so, also leads you to hold that the live and healthy frog with its brain intact has a consciousness ; and if this argument is worth anything at all it must surely lead you also to say that the frog's spinal cord activities have psychic correspondents.

And if this is true of the frog, why is it not true of man? In my normal life these psychic correspondents of the spinal cord activities are minor psychic systems within the whole psychic system that I call consciousness. These minor systems indeed are usually unable to affect attention, although occasionally some of them do so when we are quiescent: *e.g.* I do not note the heart throb now, but I may as I am falling asleep.

We may note also that beyond such disconnections as we have above referred to there is evidence that a practical

disconnection of the activities of partial systems, within the total neural system in a man's body, may occur as the result of what we may call an incommensurability of rhythm between the activities of the partial systems and of the pre-eminent system.

We are thus led to the conclusion that the normal human consciousness is subject to dissociation of partial systems to so great an extent that it is more just to describe ourselves as a bundle of multiple minor consciousnesses, one of which, and the most complex of which, normally appears as pre-eminent. This pre-eminent consciousness is, during waking life, coincident *practically* with the activity of the brain; and certain minor systems (notably the sympathetic nervous system, and the spinal cord systems) are then practically cut off from the brain system, and may be assumed to have separate consciousnesses of their own which scarcely influence the pre-eminent psychic system which *par excellence* we call consciousness. But if these previously disconnected minor nervous systems become connected with the pre-eminent system,—if perhaps the rhythm of activity of these minor nervous systems becomes commensurable with that of the brain system,—then they may become again part and parcel of this brain system; and the minor consciousnesses coincident with their activities may then become partial within the unity of the pre-eminent consciousness. We are clearly led thus to see that, apart from the pre-eminent consciousness, we must assume the existence of minor consciousnesses in connection with the human body.

This view has been suggested long since, but is rejected, and often with derision, by some of our biologists; its rejection, however I am convinced is merely due to an unwarranted hesitation to carry our every day reasoning to its legitimate conclusion. The pre-eminent nervous system expresses itself by bodily activities of one kind or another, and notably by certain contractions of the throat and

respiratory organs, and movements of the lips which produce speech. The sympathetic system, and the practically or actually separated minor nervous systems, express themselves by bodily activities of one kind or another exclusive of these activities of speech. While it is perfectly clear that the consciousness which expresses itself in speech, as well as in various other bodily activities, is the pre-eminent human consciousness; it seems equally clear that there must exist minor consciousnesses which correspond with the activities of minor nervous systems within our own bodies which are at times practically, or in some cases actually, disconnected from the main system of nervous systems.

One objection which is often brought against this assumption is that, even if we grant the force of the general argument by analogy above suggested, it is the pre-eminent psychic system alone in man that is worthy of being called his consciousness; and that these minor psychic systems, being apart from the pre-eminent system of psychic systems, cannot properly be called consciousnesses. But the answer to this objection is clear when we consider: 1st, that these separated minor nervous systems are, as we have already seen, quite comparable in complexity with the whole nervous systems of certain adult forms of animals to which we do not hesitate to grant some form of consciousness; and 2nd, that the activity of these minor systems within the human body often does affect the activity of the whole system of nervous systems sufficiently to involve a coincident modification in the whole system of psychic systems which we all agree to call consciousness.

Sec. 5. But it is evident that what we have above spoken of as minor consciousnesses must vary in breadth and co-ordination, and we are thus brought to the consideration of certain points of the greatest significance.

If we consider the complex nature of the nervous system it is evident that while it may appear usually to act as a

systematized whole of thoroughly related parts, nevertheless it is potentially divisible into separate large systems as the result of the simultaneous reception of stimuli to activities which are incommensurable in rhythm, if we may so speak. Thus while the neururgic pattern of the mass as a whole in any moment may appear as a unit ; nevertheless there exists always the possibility of the appearance, in the whole mass, of neururgic patterns in large number, some of which may be incommensurable in rhythm, and utterly incompatible with one another.

If special stimuli tend to produce in a part of the whole system some special partial neururgic pattern which if produced would be incompatible with any neururgic pattern which could appear in the system of systems *as a whole*, then a large undifferentiable system of activities, which are involved in the production of this special neururgic pattern, may well be detached as it were by its special form of activity from the system of systems taken as a whole. If two or more stimulative systems (for the sake of simplicity we shall speak of two only) *act at the same moment* upon the total system, then two neururgic patterns will tend to be developed, and if these are incompatible there will result a separation of the corresponding systems of neural activity within the total system.

Now if one of these two diverse systems is relatively unimportant, the separation away of its activity from the total mass of activities will be unimportant, and the activity of the whole major system will not be materially changed : we shall have the great system reacting as a whole in the form of the relatively important neururgic pattern, the relatively unimportant system being for the time eliminated from the mass : provided, be it noted, that this minor system is incompatible as to rhythm with the major system as stimulated. And as a matter of fact we must look upon the great system as constantly developing innumerable neururgic patterns

which are either rhythmically commensurable with the whole activity *of the major system*, and which therefore become absorbed in the dominant neururgic pattern ; or which, being incommensurable, cause the separation away from it of parts of the whole system, leaving the mass to all intents and purposes unaltered. As some minor systems become disconnected, at the same time others which have been disconnected may again become connected.

But evidently in certain cases stimuli may call for reactions which will bring into emphasis within the major system two or more neururgic patterns of practically equal significance ; and in such cases, if the neururgic patterns are mutually unassimilable, there will be a breaking up of the major system into two or more equally important systems of activity. Or it may happen that the rhythms of the two neururgic patterns may be almost completely incommensurable, yet not utterly incompatible ;—that one pattern may sweep over, and through, the other pattern, as the waves on the surface of a pond caused by a steady wind may be crossed by the waves caused by the stone I throw into the water in a direction at right angles to the course of the wind. But in either event the main system of neururgic systems will be broken up into two (or more) great systems.

Sec. 6. Turning to the consideration of the corresponding noetic systems we are led to see that it is possible that quite separate consciousnesses of high complexity and of full co-ordination may under certain conditions co-exist in connection with the same human individual,—" co-consciousnesses," as Dr. Morton Prince would have us call them. Evidence of such co-existing consciousnesses is given in great abundance in pathological cases which are studied with great fullness and care in Dr. Prince's important work, *Dissociation of a Personality*, to be considered more fully in Chapter XXVI.

As we know, the early man of limited intelligence, when

he saw his friend act in a manner very different from that to which he had become accustomed, found it most natural to attribute the new type of action to the fact that his friend's body had become "possessed" by another "spirit" than that which seemed usually to control it. And I submit that if we could study the activities of other men without any knowledge that we are men, and without any undue reference to, or deductions from, our introspective experience, we would hold that the uncivilized man was not without justification in holding to this spirit theory. We would indeed go farther, and would say that the cases which at first attract our attention, and lead us to attribute diverse consciousness to the same individual, were indeed morbid cases in which the diversity is distinctly suggested, but that nevertheless they point to a general truth: and that we have only to observe perfectly normal life closely, and with care, to find ourselves able to see the evidence of the very frequent existence of diverse consciousnesses in the same individual. The consciousness of the vigorous optimistic man who, refreshed by sleep, undertakes joyously his daily task, is surely quite diverse from that of the same individual who, dejected and wearied by toil, and depressed by failure, returns home in the evening hours.

Having gone thus far we would say further that there is much evidence of diverse consciousnesses at times holding possession of the same individual at one and the same moment: consciousnesses which at times are in conflict, as is evidenced by hesitancy, or rapid changes of expressive activity: consciousnesses which at times "take possession" as it were of diverse parts of the expressive system, as is evidenced when a man who is playing on the piano from a score with which he is perfectly familiar, at the same time carries on a vigorous conversation with his companion on matters unrelated to the music; or in cases of "automatic writing" which are for the most part abnormal, but which

we have lately discovered may be produced artificially in many perfectly normal individuals.

A pre-eminent position is usually given in our thought to that consciousness of any moment which is coincident with the action of those important organic systems upon which speech, and written language, and thought, depend ; and in cases where more than one consciousness possesses the individual, this latter is the consciousness which is looked upon as the *real one*. Thus we speak of the musical work of the person at the piano with whom we are conversing as being entirely *mechanical*; and the writing of the person who is reading to us as *automatic* writing. But it seems clear that the nature of the psychic mass to which are given the impressions which lead to the playing in the one case, and to the writing in the other, is of the same general nature, and deserves as full consideration, as that psychic mass to which are given the impressions which lead to the conversation in the one case, and to the reading aloud in the other.

I do not intend to deny that we are perfectly justified in judging that one of these diverse consciousnesses is more important than the other, or others. We are perfectly warranted in describing one of them as typical, as the real consciousness of the man,—while the others are looked upon as more or less unimportant, and imperfect, and short lived. But I think it cannot be denied that all objective evidence points to the frequent existence in the same individual man of utterly diverse consciousnesses at one and the same time.

C

Sec. 7. We are led here to take a further step: for a nervous system is a system of " elements," *i.e.* of parts in which may originate special activities within the system: and it seems natural to assume that if we could isolate a living active neural element, we should be bound to assume that a psychic element corresponded with its activities.

It may be true that the neurologist has never been able to discover a disconnected, isolated, living, neural element; nevertheless if, as we have above argued, minor neural systems may exist within the human body and remain active even though disconnected from the major nervous system taken as a whole, it seems highly probable that living neural elements may from time to time be disconnected from, and then again reconnected with, one or another of the minor systems which go to make up the nervous system as a whole.

Correspondingly it is true also that the psychologist has not been able to isolate any thing that can properly be called a psychic element; and even if he could do so, it as an element could not appear as an emphasis in reflection within *consciousness*, for consciousness under our view is necessarily systematic and not elemental. Nevertheless, if minor psychic systems,—minor consciousnesses,—in correspondence with minor nervous systems within the human body, may exist as disconnected from the major human consciousness taken as a whole, it seems necessary to assume that psychic elements, in correspondence with disconnected neural elements, may be from time to time disconnected from, and then again reconnected with, one or another of the minor psychic systems within consciousness; some being now cut off, some being now added on, to go to make unanalyzable differences from moment to moment in the nature of our consciousnesses.

Sec. 8. The above arguments by analogy seem to be so natural that it would be scarcely worth while to say more in relation to them were it not that our conclusions stand in opposition to the views of many writers of unquestioned authority. It is the habit of many psychologists and biologists to treat consciousness as a *deus ex machina* which they bring forward, often most recklessly, to explain adaptations observed in animal behavior which cannot readily be ascribed to instinctive processes which they look upon as

automatic and mechanical. They speak of consciousness in such cases as "effective consciousness," and although they allow that there is another form of consciousness, which they designate as "sentience," in connection with certain of these *quasi* mechanical processes, they do not admit that this sentience is "effective"; and having accustomed themselves to conceive of a break between effective and non-effective consciousness, they find it easy to assume that there is no difficulty in imagining many forms of neural activity to which no psychic states whatever correspond. Some biologists actually go so far as to assert that it is sheer nonsense to assume even that all animals in which we discover nervous systems possess forms of consciousness.[1]

But it appears to me impossible to acknowledge the coincidence between some nervous activities and certain changes in the stream of consciousness; and then to assert that beyond the narrow limits of which we can judge in reflection there are no psychic coincidents of nervous activities. It may be true, as Loeb says,[2] that "the idea of a

[1] Prof. Loeb in his *Physiology of the Brain* heaps ridicule upon such hypotheses as we here present. The force of his statement is vitiated however by the fact that he appears to have no proper conception of what psychologists generally mean by the word consciousness. He assumes that they limit the meaning of the word to that special phase of consciousness which the psychologist designates as reflective consciousness. "All these speculations," says he (p. 251), "collapse as soon as we realize that the term consciousness, or soul, is applied by metaphysicians to phenomena of associative memory; and that the latter depends upon a physical mechanism which must be just as definite as, for example, the dioptrical apparatus of our eye."

But psychologists do not refer only to the phenomena of "associative memory" when they speak of consciousness. They mean by consciousness something much broader than "associative memory," which latter may possibly, as Prof. Loeb argues, require a special physical mechanism which is only produced at certain "critical points" in the course of animal development. Confer his remarks on pp. 252 and 253.

[2] *Op. cit.* p. 253.

steady, continuous development is inconsistent with the general physical qualities of protoplasm, or colloidal material. The colloidal substances in our protoplasm, possess critical points." And it may possibly be true that "just as only certain animals are provided with apparatus for visual space-perception, only *certain* animals are provided with the mechanism necessary for associative memory."[1] But this does not argue that there is no psychic change, of a type which is not involved with "associative memory," coincident with changes of activity in parts of the nervous system which are not part of the special mechanism which he is considering.

Surely the most natural hypothesis to adopt is the one I here defend: viz. that if the neural activity coincident with that part of consciousness which we can study in reflection is that of a complex system of nervous systems; then it is in the highest degree probable that, as there are neural elements of which this complex system is built up, so there must be psychic elements coincident with the activities of these neural elements,—psychic elements out of which the complex system of psychic systems which we call consciousness is, as it were, built up.

And if this be true it would seem to be an error to assume, as is so commonly done, that the activities in the cortex of the brain alone are coincident with consciousness; and that the activities of other parts of the nervous system are merely mechanically related to the brain. Under our view all activities in all parts of the nervous system, of which the brain is the pre-eminently important part, must have psychic coincidents which form parts of consciousness. It may be, and probably is, true that the emphatic activities within the system take place for the most part in the brain; and that the emphatic presentations which appear in consciousness are the coincidents of these emphases of activity in the brain

[1] *Op. cit.* p. 252.

part of the whole system. But this should not lead us to hold that the unemphatic nervous activities of any moment are without influence upon the activity of the whole nervous system if it is considered as a unit ; nor should it lead us to hold that the coincident unemphatic psychic parts are of no significance in the sum total of the consciousness of the moment.

Surely if we with our present knowledge of the nature of the nervous system had for the first time noted this correspondence between the action of neural systems and consciousness, we would have argued at once, either that the whole notion of the connection between neural activity and psychic states must be illusory ; or else that the correspondence must be general for all nerve action, and that we must look for some such explanation as I have elsewhere given of the fact that psychic states appear to be connected only with particular nerve actions at particular times.

D

Sec. 9. If we accept the above conclusion we are led to take one further step of importance. [illegible] of his statement.

We commonly assume that so specific no proper significance is to be given to action with[illegible] the nerve consciousness in man's organism that it alone c[illegible] the work of that special phoment in the relations of correspondent[illegible] iates as reflective consciousness. Some of our modern biologists, [illegible]r), "collapse as so[illegible]at they have ground for holding [illegible] is applied by [illegible] that the latt[illegible] substance has powers of interaction, [illegible]t as definite[illegible]milar to those

[1] Confer Loeb, *Physiology of the* [illegible]. [illegible]d elsewhere. Prof. Loeb, as we have seen above, scouts the [illegible] idea that this, or any other fact, points to the conclusions which we here suggest ; but I judge, as I have already said, that this is because "consciousness" for him means something much narrower than it does for us here. Confer in opposition, Bethe [illegible] *Anatomie und Physiologie des Nerven Systems*, as referred to by [illegible] University of Colorado Studies, June 1905, pp. 223 and [illegible]

observed in nervous tissue ; and that masses of protoplasm may form systems of active life without the existence of anything like nervous systems ; nervous matter indeed under such a view appearing to be but a specially differentiated kind of protoplasm which serves as a peculiarly quick and sensitive " conductor " from part to part of the organism.

This, or some similar view, seems likely to prevail, as it is in line with the modern emphasis of the fundamental likeness in all living forms ; [1] and it seems possible therefore to hold that while the form of consciousness with which we are familiar is practically correspondent only with transfers of energy within the vastly complex human nervous system ; nevertheless it may be true that any transfer of energy in protoplasmic matter may have a coincident psychic effect ; and that consciousnesses of a certain grade may exist in living bodies which are systematized and yet without nervous systems.

If such a view be possible then we must hold that human consciousness is in all probability complicated by the existence of psychic correspondents of transfers of energy in other protoplasmic masses than those which we designate as the nervous system ; although it must of course be granted that the very superior " conductivity " of the nervous masses makes the part of human consciousness which, under such a view, corresponds with activity of the nervous system vastly more important in the whole of man's consciousness than all the rest of the psychic effects corresponding with transfers of energy in protoplasmic masses other than the nervous tissues.

[1] Confer H. S. Jennings' *Behavior of the Lower Organisms*, p. 336. "The writer is thoroughly convinced, after a long study of the behavior of this organism, that if amoeba were a large animal, so as to come within the every-day experience of human beings, its behavior would at once call forth the attribution to it of states of pleasure and pain, of hunger, desire, and the like, on precisely the same basis as we attribute these things to the dog."

Sec. 10. One more point of no little importance must be noted in this connection.

If we once agree that all transfers of energy in protoplasmic substance have their psychic correspondences, then of course we must allow that there are consciousnesses of a lowly and sluggish nature in connection with the lowly and sluggish life of the plants. This, it will be remembered, was a point defended on other grounds by the great psychologist Fechner, and which has been since upheld by not a few, among whom we may mention a man of as high position as Paulsen.

E

Sec. 11. The final test of any theory lies in the explanation it gives of the mysterious ; and it is a very cogent argument in favor of the broad view of the nature of consciousness thus taken that in connection with this conception we have a completely satisfactory answer to the old time puzzle as to the moment of the beginning of the individual soul life.

In the human species, to which in this connection we may confine our attention, the unfructified germ cell is a living protoplasmic particle which is cast off from the body of the female ; and, under such a view as we have above been led to hold, so long as it is a living particle, it has corresponding with its exceedingly lowly activities, an exceedingly lowly form of psychic existence.

While it was part of the body of the female it had its little part in forming the totality of those systemic physical activities to which corresponded the female's consciousness.

The germ cell may happen to be fructified, and attach itself to the internal tissues of the body of the female. Notwithstanding that this attachment is only of such nature that our biologists call it parasitic, nevertheless, under the view here taken, the cell again becomes part of the whole bodily system of the mother, and its activities again play their lowly

part in the production of the systemic action of the whole body, which has its correspondent in the whole of the consciousness of the adult female.

This germ cell under these conditions, within the female, and in connection with her body, develops very rapidly into the embryo. It is true that the relation of the embryo to the mother continues to be almost parasitic in its nature during its development up to the time of birth, as it also remains for a considerable time after birth. Nevertheless, it draws its nourishment from, and is in a broad sense systemically related to, her body. For as part of her bodily system no activity in any part of the embryo can be without *some* direct or indirect effect upon each and every part of the body of the mother ; and no activity in any of these parts of the mother can be *totally* without direct or indirect effect upon it.

The psychic coincidents of the activities in the embryo are thus part and parcel of the mother's consciousness, if this is considered in the broad way presented in the preceding section. As the embryo grows, within it develops a nervous system of its own, and if our view is correct a minor form of consciousness must exist in connection with the activities of this rudimentary nervous system. It is true that, so far as we know, the nervous system of the embryo never has a direct connection with the nervous system of the mother: nevertheless as there is a reciprocity of reaction between the physical body of the mother and its embryonic parasite, the relation of the embryonic nervous system to the nervous system of the mother is not very far removed from the relation of the pre-eminent part of the nervous system of a man to some minor nervous system within his body which is to a marked extent disassociated from the whole neural mass.

Correspondingly then, and within the consciousness of the mother, there develops a new little minor consciousness which, although but lightly integrated with the mass of her

consciousness, nevertheless has its part in her consciousness taken as a whole, much as the psychic correspondents of the action of the nerves which govern the secretions of the glands of her body have their part in her consciousness taken as a whole.

It is very much as if the optic ganglia developed fully in themselves, without any closer connection with the rest of the brain than existed at their first appearance. They would form a little complex nervous system almost but not quite apart from the brain system ; and it would be difficult to deny them a consciousness of their own ; which would indeed form part of the whole consciousness of the individual, but which would be in a measure self-dependent. Should the optic ganglia when fully developed be separated away from the brain, then what was once a minor system within the whole brain system would become a new individual with an optic consciousness all its own.

Now something not unlike this happens at birth. Before birth the minor physical system, *i.e.* the embryo, though lightly attached to, is nevertheless part of the physical system of the mother: and the psychic correspondents of its activities form part of a complex consciousness which is that of the mother and embryo together ; the psychic correspondents of the activities of the mother, as exclusive of those of the embryonic parasite, being of course pre-eminent in such a complex psychic system.

At birth we have a disruption of the less developed, from the more developed, physical system ; and corresponding therewith we have a minor consciousness of low development " split off " from the more highly developed pre-eminent consciousness of the mother which remains to all intents and purposes intact. The new " split off " minor consciousness then begins its existence as an individual entity, and as time goes on develops into a full formed human individual consciousness.

II

Sec. 12. The considerations of the preceding sections turn our minds naturally again to the question as to the limits of human consciousness referred to briefly in Chapter II.

In Chapter I. we have seen that the word consciousness is used to express two diverse meanings: (1) psychic existence as such; and (2) awareness. If we bear this in mind we find the solution of many difficulties that trouble not only the common man, but also the psychologist.

If our theories are correct consciousness must continue to exist so long as life exists. In states of sleep where we are wont to say that we are unconscious, it appears that we so judge merely because in later moments we are unaware of the sleep consciousness that is because we are unable to recall in our active waking life the psychic existents of the moments of sleep.[1]

Of the so-called unconsciousness of states of coma we have a like explanation: but in this case the lack of awareness due to failure to recall is often complicated by failures of assimilation; as in cases of concussion of the brain where the injured man after recovery is likely to say that he is unconscious of all that happened long before the accident, although at the moment of the accident he evidently must have been vividly aware of what was going on.

The reflex acts which are usually said to be unconscious are either so unimportant in reference to the whole pulse of the nervous system in the moment in which they appear, that their psychic coincidents are not sufficiently important in consciousness to appear in the field of attention, without which awareness cannot occur; or else they are practically

[1] In Dr. Morton Prince's Miss Beauchamp the co-consciousness called "Sally" claimed to be always awake. At all events when "Sally" appeared she was able to tell of much that happened when the usual Miss Beauchamp was sound asleep.

disconnected from the pre-eminent nervous system, their psychic correspondents being therefore disconnected from the pre-eminent consciousness which contains the field of awareness.

States of so-called unconsciousness produced by anaesthetics under our view are states of consciousness of low grade which are incommensurable in rhythm, so to speak, with the consciousness of waking life. The conditions of anaesthesia may be in part due to a practical disconnection from the major nervous system of those special parts which are active in coincidence with what would be painful states under normal conditions. But under our theory, even in cases where the most complete anaesthesia is produced, we have little evidence of "unconsciousness," if we mean psychic non-existence, during the operation other than the fact that in the waking state we fail to revive any psychic states which may have existed during the artificial sleep produced by the drug.[1]

[1] It has been argued by M. Philippi, as the result of a large number of observations, (*Revue Philosophique*, May 1899,) that there is no ground whatever for the notion that consciousness is absent during surgical operations under the influence of anaesthetics. As he shows, patients often scream during the operation, and make futile efforts to stop the surgeons at their work; and nevertheless fail after the operation to recall any of the circumstances attending it. It is surely absurd to hold that this screaming, and these efforts to avoid the pain-bringing knife, are merely reflexes which have no corresponding presentations in a consciousness of the moment of protest and struggle, without other evidence than the fact that such activities fail to produce revivals in the moments following. If we take such a position we are surely forced to hold that the hypnotic patient is unconscious because he fails to recall in normal life the presentations of the trance state. All that we can properly hold is that normal revivals of the presentations which were experienced while the patient was under the influence of the anaesthetic are cut off from the consciousness of the fully awake state which occurs when the influence of the anaesthetic has disappeared.

Confer also Binet, *Revue Philosophique*, Feb. 1889, p. 156. Elsewhere in this same article he gives cases showing that "anaesthetic" members

The "subliminal consciousness," and the "subconscious," according to this view, are unfortunate terms referring to psychic existence below the level of "awareness," *i.e.* to what I would prefer to call the sub-attentive consciousness.[1]

We may surely hold that this sub-attentive consciousness is fundamentally of the same nature as the attentive consciousness, and that like the latter it is elaborately systematized. Under such a view "unconscious cerebration" is explicable as a condition where certain noetic patterns which are so unemphatic that they remain within the sub-attentive consciousness develop resultants which are sufficiently emphatic to force themselves into the field of attention.

Where "co-consciousnesses" exist in the same individual, if it is shown that such do exist, the whole of one of the co-consciousnesses,—the subordinate one,—will usually be entirely disconnected from the wide-awake consciousness: so far as the two are connected, however, such parts of the subordinated one as affect the wide-awake one must usually belong to this latter's sub-attentive consciousness.

While the subordinate consciousness may at times be without means of expression, it nevertheless may develop what, if given in clear experience, would appear as fields of attention, and a field of inattention, *i.e.* a subordinate Self.

Suggestion to this sub-attentive consciousness ("subconsciousness") is also readily explicable.[2] Suggestion to attentive consciousness is the most common of occurrences: and it often results in the development of new noetic patterns

of the body execute adaptative movements in relation to excitation; and adaptation to special conditions is the mark which biologists generally agree to be the sign of consciousness in the lower forms of animal life whose conscious states can only be inferred.

[1] Cf. my article in the *Journal of Philosophy*, etc., vol. v. No. 4.

[2] Cf. my articles "Sub-attentive Consciousness and Suggestion," *Journal of Philosophy*, etc., vol. v. No. 18: and "Psycho-therapeutics and Religion," *Hibbert Journal*, Jany. 1909.

which are far more emphatic than those from which the new patterns develop. So suggestion to the sub-attentive consciousness may result in the development of new noetic patterns which will be so emphatic that they force themselves out of inattention into the field of attention or "awareness": as happens in cases of "unconscious cerebration" above referred to.

CHAPTER VII

OF CONSCIOUSNESSES MORE COMPLEX THAN HUMAN CONSCIOUSNESSES

Sec. 1. In the previous chapter we have seen that we have ample grounds for holding that other consciousnesses exist which are less complex than human consciousnesses; and we are naturally led to enquire whether other forms of consciousness may exist which are still more complex than those human forms with which we are made familiar in our life of reflection. We may well begin this study by asking what ground there is for the supposition so frequently met with in modern writings that more complex forms of consciousness exist in which the consciousnesses of individual men appear as elementary parts.

A

Sec. 2. The fact that each human consciousness is a psychic system which is a complex of minor psychic systems, each of which is itself a highly complex system of psychic elements, leads us to see that it is by no means impossible that our own complex psychic systems, taken as wholes, *i.e.* our own consciousnesses, may be joined with other complex psychic systems, *i.e.* other consciousnesses, in the formation of consciousnesses of still higher grades of complexity. We are led thus in the first place to consider whether there is any possibility of the formation of such higher psychic systems

from the combination of the consciousnesses of human beings aggregated in social masses: whether in other words there can be any such thing as a "social consciousness"; and whether coincidently the aggregate of individuals in a social body may rightly be looked upon as a "social organism."

The first thought that suggests itself to us in this connection seems to argue against such a notion: for we are accustomed to hold that the neural systems with which the consciousnesses of men are correlated are what we call closed systems, and as such are physically completely disconnected from one another: and if such is the case it would seem impossible to imagine the coincident consciousnesses of men bound together into a unified system. But upon second thought we are led to ask wherein consists the bond between the minor neural systems within the great neural system in any individual man; and when we ask this question we find that while it is easy to speak of the "integration" of these systems, it is difficult to explain in what this "integration" consists. All that we are able to assert is that the minor systems are contiguous, and so connected that together they act as a unit.

But evidently this contiguity and connectedness within the neural systems of individual men are of various grades, as the unification of the activity between the several minor systems is of different grades. We are led to note furthermore that when, for instance, any of us touches the hand of a fellow man, the nerve terminals of his neural system are contiguous with, and active at the same time with, the corresponding nerve terminals of that fellow man; and that his neural system and his neighbor's neural system at such a moment form in a sense one still more complex neural system, in which there are two great minor systems in either of which may occur the inception of changes in grade of activity, but in which this inception of activity must affect

both parts of, that is the whole of, what we may call the duplex system made up of the nervous systems of both the men. No action in the nervous system of one (A) of the two men (A and B), under such conditions of contact, can be without some effect upon the activity of the nervous system of the other man (B) ; nor can this action in the one man (A) fail to be influenced by the existing conditions of activity in the nervous system of that other man (B).

Taking one step further we note that the nervous systems of two or more individuals living in the same physical environment may be connected by common stimulations, the most important of which are those of ocular, or of aural, nerve terminals, and by those signs and symbols of spoken and written language which are substituted for these stimulations, just as well as by the common stimulations of touch nerve terminals of which we have just spoken ; and we are thus led to see that after all it is not at all impossible to surmise that the individuals of social groups who are similarly constituted, and who are affected at the same time by the same stimuli from the environment, may be organically interrelated elements of a social body to which must be coincident a social consciousness.

Sec. 3. If we assume then that we have in social groups such highly complex systems, physical and psychic, *i.e.* that social bodies and social consciousnesses exist ; nevertheless we cannot take such a position without making certain important reservations to avoid misunderstanding.

We may note in the first place that the bond of unity between the different individual systems is of the very lightest kind, and one which is most easily broken ; so that social systems are likely to be ephemeral, systems of one form being constantly dissolved, and new systems constantly being formed. In other words, such social systems, and the coincident social consciousnesses, if they exist, must be of the very simplest type of organization, in which what we

call the "integration" of the possible partial systems is of the very lowest grade. It is clear then that social organisms, if they exist, must in one aspect be of a grade comparable with those of the lowest forms of individual animal life,[1] and not comparable in this aspect with human organisms.

In the second place[2] it seems clear that it is improper to speak of the opinions of aggregates of men, as we comprehend them, as constituting a "social consciousness," as our extreme sociologists are wont to do. For the conception of a social consciousness implies that the thoughts of men, as they are related to the whole pulse of the social consciousness, must correspond in the main with particular psychic elements or minor psychic systems in us, as these are related to the whole pulse of our own conscious life. Were the psychic elements which make the substance of our conscious life so loosely bound together, so fortuitously related, as are the thoughts of different men, we could certainly not believe that out of these more or less isolated and unsystematized psychic elements anything could rise correspondent to consciousness as we experience it. Only where we per-

[1] As I have said elsewhere (*Instinct and Reason*, page 191) if it be true that social aggregates are organic, and that this organic nature is of a low order, then it is clearly impossible that the hypothetical social body can be able to perform functions correspondent to those which in individual life are performed only in organic forms of a more highly integrated order. The hypothetical social body, if it exist, may indeed be counted on to perform the differential actions that relate to the lower forms of self-protection. If, however, we assume that this hypothetical social organism can perform great complex work correspondent to the higher grades of work done by a highly-organized human individual with all his parts thoroughly integrated, we must expect to find our assumption unverified; we must expect the social functioning, thus attempted, to fail, because the aggregate in such directions will fail to act as an integrated unit, because it will easily lose its organic structure and become a mere cumbersome machine with parts working together in time, but without co-ordination and integration.

[2] Confer my *Instinct and Reason*, p. 189 and 190.

ceive close community of impulse, and partial identity of thought among large masses of men, can we imagine the existence of a social consciousness which is in any measure like human consciousness ; and even then this social consciousness must in the matter of integration be of a grade much lower than human consciousness as we know it.

Furthermore, even if we suppose that a social consciousness does exist of which our thoughts are mere elements (and the probability of such existence I agree to), we cannot assume that our elemental thought can in any way grasp the content of this hypothetical social consciousness. As well might we expect the parts of our psychic life (say our sensations) to grasp the complex resultant which we call our consciousness. If there be a social consciousness of sufficiently high grade, corresponding in general form to our individual consciousness, it may know our thoughts as partial emphases, or presentations, much as we appreciate the existence of our own sensations and their elementary qualities ; and it may have means of expression that are effective for other consciousnesses of its own order ; but we as elements of this wider consciousness can surely not be able to grasp even dimly the nature of that higher consciousness which, if it exist, must be determined by the pulse of thought of many interrelated individual consciousnesses. It is evident then that it is not proper to speak of the mere related concepts of the individuals composing social groups as in itself constituting a "social consciousness" the nature of which is revealed to us by a study of these related concepts.

That social consciousnesses may exist, however, I do not think we are in a position to deny, although I thus protest against the careless identification of what *we know* as the thoughts of men with such social consciousnesses ; and although I believe that social consciousnesses must be of a type very different from human consciousnesses as we know them.

An objection has been raised by Prof. Henry Sidgwick, which serves as a valid criticism of the ordinary conception of the social organism, in the fact that individual men shift their allegiance, as it were, so readily from one group to another, or even belong to diverse social groups at one and the same time. But this fact does not affect adversely the conception here defended. It merely means that diverse social consciousnesses, in which there are common elements, may co-exist ; and this is quite compatible with our view of the nature of the individual human consciousness which, as we have seen, is really a broad system of minor consciousnesses, which minor consciousnesses may, and in fact often do, contain common psychic elements, so that in human consciousness the same psychic elements may belong to diverse minor systems at different times, and at times to diverse minor systems at one and the same moment.

Sec. 4. If we assert the probable existence of social organisms, and of social consciousnesses, of the nature thus attributed to them, then we are led to ask, on the one hand, whether, apart from the mere facts of contiguity and of the reciprocity of activities in the individuals constituting social aggregates, there is evidence of an objective kind of the existence of such social organisms ; and whether, on the other hand, there is evidence of a subjective kind, in our own experience, of the existence of such social consciousnesses.

In looking for such objective evidence we naturally ask whether we discover any signs, other than those already noted, which indicate the existence of organic bonds between the individuals aggregated in social groups ; and we are at once led to observe that we will have very strong ground for the assertion of the existence of such organic bonds if we find ourselves able to note any marked correspondence between the activities of the related parts of an individual organism, and the activities of the related individuals of

social aggregates. Now just such evidence is at hand in the well-recognized fact that in many respects the activities of social aggregates correspond in form with those of the activities of individuals ; and that these activities arise in the course of social development in an order corresponding to a great degree with the appearance of the like activities in the course of the development of the individual. Mr. Herbert Spencer, and others, have so fully presented this evidence that I shall not weary the reader with repetition of the facts with which they are doubtless thoroughly familiar.[1]

When we look for subjective evidence of the existence of social consciousnesses in which our human consciousnesses appear as elements,[2] we are led to see that if such broader social consciousnesses exist, then our own consciousnesses, when joining with others in the formation of a consciousness of more complex type, while retaining their own general qualities, must be assumed to be modified in the fact that they become part of the higher consciousness.

We should not expect to gain any direct, definitely unique, experience as the result of becoming part of such a broader social consciousness: we should not expect, as we have said above, to be able to " know " this broader consciousness of which our pre-eminent consciousnesses are elementary parts ; but on the other hand, we might expect our consciousnesses, which in such cases are parts of a pre-eminent social consciousness, to have a " feel," to use James' word, different from that given if they were isolated or temporarily disconnected from the broader social consciousness ; and we might therefore expect to experience some difference of this " feel " where our consciousnesses become parts of a higher system, and a further difference of " feel " when this bond is dissolved.

[1] Confer however chap. vii. of my *Instinct and Reason*.

[2] Confer my *Instinct and Reason*, p. 66.

When we find ourselves in a great assemblage of enthusiastic people whose minds are turned in some one special direction, we note a well-recognized change of experience. Such a change of my experience may not impossibly be due to this subsumption, for the time, of my limited consciousness in, and as part of, a higher consciousness ;—may be the nearest possible approach to the grasp by the individual consciousness of a social consciousness, if such can be supposed to exist.

B

Sec. 5. In all that has preceded this we have given our attention solely to the study of animal and vegetable life, and have left entirely unconsidered the possibility of the existence of any psychic life in correspondence with changes in inorganic matter.

But, if we allow ourselves to consider such a view as that presented in section 9 of Chapter VI., we are led to ask why we should limit our analogical deductions to changes observed in that type of matter which we describe as protoplasm; and we are then led further to surmise that something psychic may possibly correspond not merely with such transfers of energy as occur in protoplasmic matter, but with all transfers of energy, whether in living or non-living bodies, even though this psychic somewhat be of a nature which we can but little comprehend.

This view which Paulsen refers back to Plato and Aristotle, and traces in the thought of Spinoza and Leibnitz, Schelling and Schopenhauer and Lotze, and which was so clearly stated by Fechner, is in line with the ever diminishing distinction between organic and non-organic bodies with which the scientist is making us so familiar. It is a view which has been considered by the large body of conservative thinkers in the past as exceedingly imaginative, and not one to be taken too seriously: in the light of the general trend of modern theory as above considered, however, it surely

appears that it is at least worthy of our careful consideration.

It seems highly probable, as Dr. Santayana has suggested,[1] that as human consciousness developed from what we may call a chaotic to a reflective form, when "mind" first began to be differentiated from objects in the world, an uncritical ascription of mental life to all these objects was spontaneously and necessarily made. Of the notions thus evolved at this uncritical stage of intelligence we doubtless have reminiscences, as it were, in the crude animism of the savage and the more logically expressed hylozoism of the early Greek philosophers.

Gradually as reflection has clarified intelligence this ascription of mental life to the objects in nature has been abandoned, as a more consistent world view has seemed to be gained by this abandonment, and by the assumption of a purely mechanical view as to the nature of the inanimate objects in the outer world. But the ascription of mental life to other men and to certain of the higher animals has not been abandoned; rather on the contrary has it become very firmly established in our scheme of thought, and this just because the conception of the existence of other human consciousnesses (to pass over the assumed mental lives of the animals) happens to "work,"—because in connection with the assumption of their existence we find it possible to coordinate the experiences of every day life.

The fact that the animistic view has been so generally abandoned, as man's reason has become more highly developed, might suggest the possibility that a still further advance in our reflective life is likely to lead the individual to take the Cartesian step in relation to animal consciousness, and finally to cast off even the notion of the existence of other human consciousnesses than his own, and to rest satisfied in a complete solipsism. Such a suggestion is of course certain to

[1] *Life of Reason*, vol. i. chap. vi.

be promptly rejected by all of us ; but in rejecting it we seem to see that man's previous process of thought in the abandonment of the animistic view cannot be carried forward in a strictly logical manner ; and this leads us to ask whether we may not have been wrong in this total abandonment of this animistic view? whether the hylozoistic conception has not deserved better treatment? whether instead of rejecting it in favor of a purely mechanical interpretation of nature it were not more logical and rational to attempt to restate it in a form that will avoid those difficulties which have led us to look upon it as untenable? It appears to the writer that these questions must receive an affirmative answer.

Sec. 6. As we have seen, it is one of the distinguishing characteristics of living organisms that they are composed of a unified aggregate of elements, which are so related in a system that no element can be modified without the production of some modification in all the other elements, and in the system as a whole ; and so related that the system as a whole can only be modified through the modification of its elements.

But we have also reason to believe that mere physical elements within the universe are so related together that they form systems of various degrees of complexity, and of this very same nature ; that is, that elements within the physical universe are bound together in systems of greater or less complexity ; in which systems the elements are so related that no one of them can be modified without the production of some measure of modification in all other elements of the system, and in the system as a whole ; and so related that the system as a whole can only be modified through the modification in some measure of each of its component elements. It thus appears that systems which are *quasi* organic may exist in aggregates of physical elements which are usually spoken of as inanimate and inorganic.

If then an organism can be said to exist in any aggregate of physical elements whenever there exists a reciprocity of reaction between the elements of the aggregate ; and if we agree to adopt the hypothesis that there is a thoroughgoing correspondence between psychic forms and transfers of physical energy, then there must be some type of consciousness corresponding with the types of inanimate systems above depicted. These consciousnesses must indeed be of forms very different from human consciousness as we know it ; and, in most cases likely to be considered, must be of forms which we would usually think of as of a very low degree of "integration" in comparison with human consciousness.

If now we consider in this broad way the universe as a whole, as inclusive of all that we usually speak of as organic and as inorganic, we perceive that it as a whole must be looked upon as a vast organic system. In it are various parts which are more or less complex systems within systems; and, broadly speaking, all parts of this vast *quasi* system are in some measure related by a direct or derivative contiguity, and are subject to reciprocity of reaction, so that no element can react without in some measure affecting the activities of all the other parts of the vast organic system, and so that the reaction of any element is affected necessarily by the reactions of each and every one of the other innumerable parts of the whole vast system of the whole universe.

If the suggestions of previous paragraphs are valid, correspondent with this vast organic universe, we are compelled to imagine the existence of a universal consciousness in which each psychic element affects every other, and is affected by every other.

As I have said above, this conception, or conceptions closely allied thereto, have been reached by many thinkers approaching the subject from the most diverse standpoints. Let me quote two passages from lately published works by

writers of eminence, in which this is exemplified. In his *World and the Individual*[1] Professor Josiah Royce tells us that "we have no right whatever to speak of really unconscious Nature, but only of uncommunicative Nature, or of Nature whose mental processes go on at such different time-rates from ours that we cannot adjust ourselves to a live appreciation of their inward fluency, although our consciousness does make us aware of their presence. My (Professor Royce's) hypothesis is that, in case of Nature in general, as in the case of the particular portions of Nature known as our fellow-men, we are dealing with phenomena of a vast conscious process, whose relation to time varies vastly, but whose general characteristics are throughout the same. From this point of view, evolution would be a series of processes suggesting to us various degrees and types of conscious processes. The processes, in case of so-called inorganic matter, are very remote from us; while in the case of the processes which appear to us as the expressive movements of the bodies of our human fellows, they are so near to our own inner processes that we understand what they mean. I suppose then that when you deal with Nature you deal with a vast realm of finite consciousness of which your own is at once a part and an example." And in Mr. Stout's *Manual of Psychology*[2] we find the following words: "If the doctrine of psychophysical parallelism is true the reason of the connexion between conscious process and correlated nervous process is not to be found in the nervous and conscious processes themselves. Both must be regarded as belonging to a more comprehensive system of conditions; and it is within this system as a whole that the reason of their connexion is to be sought. In particular the individual's consciousness, as we know it, must be regarded as a fragment of a wider whole, by which its origin and its changes are determined. As the brain forms

[1] Vol. ii. pp. 225 ff. [2] Chap. iii. sec. 4, pp. 51 ff.

only a fragmentary portion of the total system of material phenomena, so we must assume the stream of individual consciousness to be in like manner part of an immaterial system. We must further assume that this immaterial system in its totality is related to the material world in its totality as the individual consciousness is related to nervous processes taking place in the cortex of the brain."

Sec. 7. If the notions presented in the previous sections are warranted, then it appears clear that there must exist an enormous variety of consciousnesses corresponding with the enormous variety of types of systematization in the universe. These consciousnesses must vary in breadth and complexity ; and as certain minor systems within the whole vast physical system must be more closely systematized than others, so certain of these consciousnesses must be more closely systematized,—more nearly closed systems,—more self-contained,—more individual,—than others. Human consciousnesses would, in this view, be special forms of such closely systematized,—self-contained,—individual,—psychic systems.

Any individual thing would thus appear to be merely a special minor system within a broader system, which minor system is at the time considered in and for itself, without relation to any broader system to which it may belong. In fact under this view we can never mean more than this when we think of any individual thing, which when objectively considered is for us but a bundle of what we call activities, which are in fact merely emphatic activities within minor systems, which latter, if we take a broader view, are merely emphases of activity in minor systematized parts of broader active systems.

What we describe as a system is thus an aggregate of interrelated individual elements, all of which are reciprocally efficient. The system is what it is because of the existence of the elements as thus related and efficient. The individual

element is what it is because in it the characteristics of the system may be emphasized and may thus become explicit.

What we describe as an individual man would thus appear to be merely a special minor physical system within a broader physical system, which minor physical system we at the time consider in and for itself: and correspondingly each individual human consciousness would thus also appear to be merely a special minor psychic system within a broader psychic system, which minor psychic system we at the time consider in and for itself.

An individual consciousness would thus, in a broad view, appear merely as an emphasis within a minor psychic system of a wider psychic system, without which it could not exist.

Such a conception accords also with our experience of consciousness in reflection. For each specific presentation may be, and often is, considered as an individual presentation. Yet in the preceding chapters we have come to see that such a specific presentation is given within the whole psychic system of the consciousness of the moment in which it appears; and that such a specific presentation must be looked upon merely as an emphasis within this broad psychic system which we call consciousness, even as the special nervous activities which correspond with this presentation are to be considered merely as emphases of activity within the whole active nervous system.

Sec. 8. It appears possible then to conceive that in this universe there are innumerable grades of consciousnesses, other than human consciousnesses. At times human consciousnesses may become inherent parts of such other forms of consciousness: and their existence might affect us by producing in us an alteration of what James would call our "feel."

If such other forms of consciousness exist in the universe, not only may we at times, as we have just seen, become inherent parts of some of those of higher grade than ours;

but it is also possible that at other times such diverse consciousnesses may merely attach themselves to ours, as it were, leaving our own consciousnesses essentially intact: but in such cases the other consciousnesses may serve to produce noticeable modifications in our own consciousnesses, and within the field of attention, which may point to influences from without such human consciousnesses as are familiar to us.

All readers of this book are familiar with the voluminous records of facts made by Hodgson and others in connection with the Society for Psychical Research, and brought into prominence in Frederic Myers's published works; facts which are more or less mysterious, and which not a few people think of as corroborative of that most vague of hypotheses, the spiritualistic, or spiritistic hypothesis as it is now called.

Had these records been made twenty-five years ago they would have been immensely more voluminous, because they would have included accounts of what were then the most convincing pieces of evidence of this hypothesis, but what are now described as phenomena of multiple personality, automatic writing, etc., which if not thoroughly understood, have surely been shown to bear no such interpretation as that involved with the spiritistic hypothesis. So it seems probable that in the near future many more of these recorded facts above spoken of will appear similarly explicable without resort to this spiritistic hypothesis.

Of such of these facts as then remain unexplained, a very small part may be interpreted as fraudulent, but a very large part indeed as due to perfectly honest but false judgments, or to illusions of forgetfulness, and especially to illusions of memory.

The small remnant of these facts which still remain unexplained on well-established psychological principles, if they seem tangible enough to point to anything at all, will

surely not point to the existence of disembodied human spirits ; but rather to the existence of consciousnesses other than human consciousnesses similar to those of which we have just spoken ; consciousnesses, as we have said, of forms very different from those known to us in our own experience, but which may occasionally attach themselves to ours in such a way as to produce modifications of our consciousnesses which seem to point to influences from outside of such human forms of consciousness as are familiar to us ; consciousnesses so differently embodied that, in Royce's words above quoted, " we can not adjust ourselves to a live appreciation of their inward fluency, although our consciousness does make us aware of their presence."

I do not hesitate to agree that such influences may very probably affect us, and as evidence in favor of such a view I may quote the mature convictions of Professor William James, who will be acknowledged to be one of the most acute of introspectionists the world has known. Referring to certain early experiments of his he says:[1] " One conclusion was forced upon my mind at that time, and my impression of its truth has ever since remained unshaken. It is that our normal waking consciousness, rational consciousness as we call it, is but one special type of consciousness ; whilst all about it, parted from it by the filmiest of screens, there lie potential forms of consciousness entirely different. We may go through life without suspecting their existence ; but apply the requisite stimulus, and at a touch they are there in all their completeness, definite types of mentality and adaptation. No account of the universe in its totality can be final which leaves these other forms of consciousness quite disregarded."

[1] *Varieties of Religious Experience*, p. 388.

BOOK II

THE GENERAL NATURE OF HUMAN PRESENTATIONS

PART I

GENERAL QUALITIES OF RELATION AROUSED IN CONNECTION WITH ALL PRESENTATIONS

INTRODUCTION

Sec. 1. In our studies in Book I. we have seen that in each moment of man's clear consciousness there appears a presentation to the Self. We have also seen that these presentations within consciousness may be looked upon as noetic emphases within a noetic system corresponding with neururgic emphases within an all active nervous system. We have seen that each of these presentations is new and unique, and that each is *sui generis*; and in Chapter IV., and especially in Appendix A, we have studied certain special types of these presentations which we have found to be disparate, yet classifiable according to certain characteristics determined by the integration of the minor noetic systems within which these presentations, viewed as noetic emphases, appear.

In this Book we shall turn attention away from the special forms of these presentations, and considering their general nature as exemplified in these special forms, shall attempt to trace the general qualities which are common to them all.

These general characteristics or qualities as given in experience must be known to us as forms of relational presentations of the broadest generality; *i.e.* as "senses of relation" which would not exist but for the existence of the special presentations, but which appear apart from them, and in connection with each and every one of them.

In seeking for these general characteristics or qualities of our complex presentations, we may note at the start that it is possible that certain qualities of this nature may belong to the hypothetical psychic elements of which consciousness is supposed to be formed: that is to say that these characteristics would be found to belong to the psychic elements if we could isolate them for purposes of examination and study, as is clearly impossible. These elemental general qualities, if such there be, can of course be known only as they appear in the complex presentations given to us in reflection, and at first sight it would appear impossible to determine by reference to reflection the nature of these elemental psychic forms. But it appears that by consideration of the neururgic analogue of consciousness we may be able to conceive of certain general characteristics which must necessarily belong to the activities of neural elements, if we suppose such to be isolated and still to live and remain active; and we are then prepared to look for the psychic correspondents of these general neururgic characteristics in general qualities of the complex presentations which we are able to observe.

Beside these elemental general qualities it is highly probable that certain general qualities, which could not appear in connection with psychic elements if they were isolable, will appear as the result of the systematization of these hypothetical psychic elements which yields consciousness as we experience it. If then we find ourselves able to discover certain general elemental psychic qualities, we may look for other general qualities of the same general nature, which however are not elemental but determined by

the combination of psychic elements to form consciousness as we experience it. If we find such, then we shall have before us for our study certain great groups of general qualities.

Sec. 2. Assuming that we do find such groups of general qualities, we note that each of the qualities in each of the groups, inasmuch as they are general qualities, must be ever present in some phase in each complex presentation. But so far as these phases differ, a certain definite number of relations between these general qualities themselves must be possible, which will be likely to produce a corresponding definite number of special forms of "senses of relation" attaching to the presentations in connection with which they occur. Such special forms of relational presentation we are therefore bound to look for, in case we are able to discover the groups of general qualities above referred to.

Sec. 3. Throughout our quest we must never allow ourselves to forget that presentations are but emphases in a vastly complex psychic system, and that we can in no case afford to overlook the influence upon the presentations of the unemphasized parts of the psychic system. We must therefore be prepared to observe special differentiations of the forms of these general qualities of presentations due to the greater or less influence of the whole psychic system upon them.

But as we have seen in Chapter III. the efficiency of the unemphasized psychic system, when it becomes presentatively explicit, is given in the appreciation of the efficient empirical ego, which appears as a presentative simulacrum of the non-presentable Self. In our studies in this Book therefore we must be prepared to find evidence of the efficiency of the empirical ego in relation to the general qualities of all presentations which we seek to discover, and in relation to all the immediate derivations of these general qualities referred to in Sec. 2.

DIVISION I. GROUP I. GENERAL QUALITIES OF PRESENTATIONS INVOLVING THE RELATION OF MORE OR LESS

SUB-DIVISION I. GENERAL QUALITY INVOLVING THE RELATION OF MORE OR LESS, AND DETERMINED BY CHARACTERISTICS OF PSYCHIC ELEMENTS

CHAPTER VIII

INTENSITY

I

Sec. 1. As we have said in the Introduction, it is possible that there may exist certain general qualities of all presentations of such a nature that in modified form they would appear in connection with psychic elements if we could isolate such elements ; general qualities which can of course be appreciated only as transformed in the complex presentations given to us in experience in which psychic elements are systematized, but which as thus appearing we might expect to show evidence of their elemental character.

Sec. 2. When we consider the conditions existing within a neural element we note that the form of its elemental activity, as objectively viewed, must be changed by the greater or less degree of this activity : and this must mean that the degree of activity must give to the elemental neururgic form a special characteristic, or quality, which involves the relation of more or less. So long as a neural

element is such, in the fact that it is a living thing, it certainly must be more or less active. In the nervous system as we know it the elemental activities are of course modified in the fact that the elements are parts of a nervous system; but the neural elements still have a life of their own, a partial autonomy if we may so speak; and their greater or less activity is measurable to some extent by purely objective means, but more especially by comparison with the activities of other special elements, or with the activities of the system as a whole. To this we refer more fully below.

Sec. 3. The question before us then is whether we experience in our complex presentations, or noetic emphases, any general quality which corresponds with this degree of activity of the neural element, as this is observed in the activity of the whole neural system, which as we have seen gives us a general characteristic of neururgic emphases. The reader will I think at once agree that experience points to the existence of such a quality in what we call Intensity. Titchener[1] asks "Why is quality the 'individualizing' attribute? Why are not the different intensities of a given pitch 'different sensations'?" He finds no answer "in strict logic." But under the view here presented the answer is clear. Intensity is not an "individualizing" attribute just because it is a general quality of all presentations. "Quality" on the other hand is diverse in each presentation, each presentation being *sui generis* as we have already seen.

It will be generally agreed that all of our sensational experiences are more or less intense; nor do I imagine that any one will deny that our emotions always display more or less of intensity: and the same may be said without hesitation I think of those conative states, desire and impulse, which in certain respects have so close a relation to our emotions. The "sense of effort" which has its

[1] *Psychology of Feeling and Attention*, p. 28.

outcome in the will act is evidently also always more or less intense.

We acknowledge thus that more or less of intensity is always displayed in connection with our receptive and reactive presentations, but it is not so generally agreed that those presentations which we speak of as thoughts, and concepts, and percepts, are in themselves always more or less intense. We do not usually think of "object-in-the-outer-world" presentations as more or less intense: but this is because we always appreciate implicitly the complexity of percepts, and tend to differentiate their separable parts in which these intensities appear; no one surely would hesitate to agree that these differentiable parts are always more or less intense. But beyond this, if we consider percepts as wholes, we must agree that even they may be looked upon as more or less intense just as their differentiable parts appear as more or less intense. The percept corresponding with the man appearing before me in the bright sunlight is, as a whole, appreciated as more intense than that of another man who is protecting himself from the heat by standing in the deep shadow.

In the study of percepts in this regard however we find difficulty in avoiding the consideration of phenomena of attention to be treated in a later chapter. This difficulty becomes more marked when we think of those presentations which we speak of as concepts and thoughts in general, and which are recognized to be of a highly complex nature: but even here, if we agree that what we call vividness is a special kind of intensity, then we must also agree that if we think of these presentations as wholes they also are always more or less intense, even as their differentiable parts are more or less intense. Let us consider briefly this relation of intensity to vividness.

Sec. 4. Much has been made in late years of the distinction between intensity, and vividness or clearness, which

attracts our notice in the study of attention to be considered later.[1] But it appears clear to the writer that the distinction is merely one made between intensities of different types.[2] Most of the studies of our psycho-physicists in this direction are given to sensational intensities, and in this field they observe intensity as contrasted with clearness, vividness, distinctness, but fail to take sufficient note of the fact that this contrast appears in other realms than the sensational. One who does so must at once concede that the distinction is one that is most commonly, and very frequently, observed in cases where sensations are compared with ideational presentations; and that the sensations which are called vivid, in distinction from the sensations called intense, are closely allied with ideational presentations. It seems to me that the frequent experiences of this comparison between sensational and ideational presentations in every day life give the basis for the distinction considered when careful laboratory tests are made.

Where intensities of diverse types of presentations appear coincidently we should surely not be surprised to find them contrasted and given different names. An elemental intensity corresponds with an emphasis of activity within a part of the nervous system, and such emphases are more likely to be distinctly marked in those parts of the nervous system which

[1] Cf. Pillsbury, *Attention*, chap. i. It is true, as Titchener says (*op. cit.* p. 219), that "a very weak sound may be as clear as a very loud sound": but here we are dealing with a phenomenon of attention to which we refer later.

[2] Mr. Boris Sidis (*Psychological Review*, xv. 2, p. 111) holds that "Sensations have intensity but no vividness; images or representations have vividness but no intensity." He must agree however that both these psychical characteristics are determined by degrees of neural activity, and he might therefore well give them one name X, holding that sensational X is to be called intensity, and representative X is to be called vividness. The difference between his record of introspection and my own is therefore merely a verbal one.

receive stimuli directly from the environment than in parts which receive their stimuli from within the system itself. As the emphatic activities in the nervous parts which are in direct relation to the environment correspond with our sensations we should expect to make note of intensities most frequently in connection with sensations, as is evidently the case; and we should find ourselves naturally considering sensational intensities when the thought of the meaning of the word intensity occurs. If then we are inclined to give special names to intensities as attached to special classes of presentations we should naturally use the word intensity to refer to sensation, and choose a special name to apply to the intensities of a less narrow nature which are due to action within the mass of the psychic system, when the two forms are placed in contradistinction. And this we do in setting "intensity" over against "vividness" or "clearness."

The meaning of this may be more clearly seen if we consider in some detail the contrast between sensational and ideational intensities. An intense presentation appears within some minor psychic system. This minor psychic system may be of greater or less breadth. It is to be expected therefore that comparison will at times be made between an intensity within a narrow minor psychic system and an intensity within a broad minor psychic system. It may well happen also that the intensity (A) which is related with the narrow system may be one which is strongly influenced by the action of physical stimuli, and not markedly affected by the reaction of the related psychic system as a whole: while on the other hand the intensity (B), which is related with the broad system, may be one which exists as such almost entirely because of the reaction upon it of the psychic system as a whole with which it is related. (A) may well be a marked case of what men usually, but inaccurately as we shall presently see, speak of as involuntary attention: *e.g.* the light of the candle upon which my eyes are fixed,—

the twinge of neuralgic toothache caused by the stimulation of an exposed nerve. (B) may well be a marked case of what we all agree to call marked voluntary attention, provided the intensity is related with, and supported by, the broad mass of the psychic system as a whole,—*i.e.* by the Self.

Now two such intensities may well appear at what seems to be one and the same moment; and we should not be surprised to find their contrast leading us occasionally to give them different names, as we have seen we do, using the term intensity to refer to the narrower sensational intensity, and the word vividness to refer to the broader ideational intensity. Vivid B, and intense A as differentiated from B, are both partial presentations. The characteristic of the vivid B is this;—that at the moment observed it persists in attention notwithstanding the fact that when both A and B are held in reflection, and compared, B is appreciated as less intense than A; so that we speak then of the intense content A as contrasted with the vivid content B. What we note *in this moment of comparison in reflection* is the fact that attention becomes fixed upon A (the so-called intense element) as more emphatic than B (the so-called vivid element), and that in that moment, B tends to disappear from attention, while A tends to persist. But at the same time we also note that *apart from this moment of reflective comparison* the reverse is the case, *i.e.* the "vivid" B holds attention as against the "intense" A. We often experience cases where attention to partial presentation A becomes approximately equivalent to attention to partial presentation B. It is in such cases of balanced attention that the psychic system is appreciated as reacting to fasten B in attention to the exclusion of A, or in other words to sustain the "vividness" of B to the exclusion of the importance of the "intense" A.

The actor on the stage may have a sharp neuralgic toothache which he may experience during the whole time given

to his acting: but the relatively unimportant psychic systems involved with the apprehension of the toothache, as compared with the very broad and important psychic systems involved in the acting of his part in the play, may lead him to say that while the toothache was more intense, the conception of his part in the play was more vivid. In the one case the intensity was due to a physical stimulus and involved relations with relatively narrow psychic systems; in the other case it was the reaction of the mass of the broad psychic system that gave the importance to the psychic element and gave it its intensity, which in such cases we call its vividness, or clearness, as you will.[1]

Sec. 5. Before we go further we may well remind ourselves that when intensity is recognized as such, it is appreciated in reflection in itself because of the appearance of a specific presentation, a special "sense of relation," which is as definite a presentation in reflection as is any other of those "senses of relation" of which we have spoken above. When we recognize an intensity it is because this special "sense of relation" is given at the moment.

The intensity of any given presentation, or psychic part, is appreciated as more or less by comparison with the intensities of other special psychic parts, or with the intensity of the field of attention as a whole, as this field is considered in reflection. It is known to us only in the fact that the presentation in which it is observed appears in a special form, viz. as part of a more complex presentation: and it is measurable only in the fact that, as such, its degree of intensity is placed over against, and in comparison with, the

[1] "Clearness" and "distinctness" are sharply differentiated by certain authorities. This distinction may be maintained without opposition to the view here held, that "vividness," and "clearness," and "distinctness," are special forms of intensity. Confer Bentley, *Mind*, N.S. 5, pp. 242 ff. for a summary of views of authorities on this point, and an interesting discussion of them.

degree of intensity of some other partial presentation within the total complex, or with the general grade of intensity of this total complex. In other words, in making this comparison of intensities we are dealing with a presentation of triple emphasis;[1] in which emphasis (1) is the "sense of relation" called the intensity involved in *a*; emphasis (2) being the "sense of relation" called the intensity involved in *b*; while emphasis (3) is still another and very special "sense of relation" which arises in connection with (1) and (2), and which we describe by saying that the intensity of *a* is greater than the intensity of *b*, or *vice versa*.

This being the case it is not surprising that the comparison of intensities may be made in relation to the most diverse of partial presentations. For instance *a* and *b* may be as diverse as light and sound;—the intensity of this brilliant light may be compared with the just noticeable intensity of that sound.[2] Again *a* and *b* may both be what we call revivals of past states: the weight of this disk which was in my hand a moment ago may appear as a secondary presentation and may be compared with the revival of the weight of the disk handed to me by the experimenter five minutes ago. Or one of the two may be what we call a revival of a past state, and the other what we call the memory-after-image of what we speak of as in the present: as when I compare the intensity of the just gone sound of a musician's violin in the rendering of a given melody with the intensity

[1] Confer Chap. v. Part II.

[2] Royce in his *Outlines of Psychology*, p. 137, says; "Ideally speaking, sensations or sensory experiences of any sort can be exactly compared in intensity only in so far as they very closely agree in quality. Thus it is impossible to say whether a given sensory experience of weight is more intense in its heaviness than a given sound is intense in its loudness." It is however only the closely alike degrees of intensity that we find thus difficult to distinguish; for certainly we do easily compare the intensities of presentations whose quality is as diverse as sound and light, provided the light be very brilliant and the sound just noticeable, or *vice versa*.

of the corresponding note in the rendering of another violinist heard last week.

In certain cases however an intensity may appear to be recognized in itself without such comparison as we have been describing. The extreme intensity of a given sound for instance may be considered in itself without any thought that it is louder or less loud than any other sound. In such cases the intensity of the presentation which is markedly intense is placed over against, and measured in relation to, the revival of the conditions of emphasis in a more normal state.[1]

II

Sec. 6. We may now turn to certain considerations of especial interest which have relation to the fact that this general quality, as we note it, is not the elemental quality which corresponds with the degree of activity in the neural element. What we appreciate as intensity is a *transformation* of a general quality which inheres in psychic elements, a transformation due to the fact that many noetic elements are systematized in each presentation that is given in our experience. This elemental general quality which in its purity, so to speak, is not given in reflection, we may speak of as "elemental intensity" as distinguished from intensity proper as experienced.

Now the fact that the general quality intensity as experienced in reflection is a transformation of this elemental intensity, which is not in itself given untransformed in experience, might be expected to result in the appearance of

[1] According to Wundt intensive magnitudes are of two kinds; qualitative gradation, and degree of strength. But the reader will observe that under my view, as stated in Chapter IV. and in Appendix A, this distinction does not appear to be appropriate, inasmuch as the "quality" of the presentation is a special characteristic; while the intensity is a general characteristic of all presentations.

certain interesting phenomena where successive intensities are observed : and I think it will appear in what follows that such phenomena are given and have attracted much attention among psychologists.

Sec. 7. If we step from darkness into a brilliantly lighted room we are blinded, but in the course of a few moments find the intensity of the light no longer noticeable : or if we step into a rolling mill we are deafened at first, but soon find ourselves hearing other sounds than the roar of the machinery. The nervous activities coincident with the experience of the brilliant light and loud sounds have not been decreased, and therefore the elemental intensities cannot have decreased ; but the appreciation of these elemental intensities has been decreased in proportion as the whole nervous system has accommodated itself to its new conditions.

This means that an intensity cannot be appreciated as maintained of equal degree in successive moments unless the elemental intensity is actually increased. And this we should expect to be the case : for the high degree of activity in the neural part corresponding with the intense presentation will be gradually spread throughout the nervous system, and unless the activity of the neural part is still further increased this increase of activity in the whole system will lead to a loss of emphasis of the part in the whole neururgic pattern ; and this must be attended by a corresponding loss of the appreciation of presentative intensity. If this appreciation of intensity is to be maintained it will therefore be necessary to increase the elemental intensity, which can only result provided the elemental nervous activity is increased. This point will appear of importance in our study of attention in a later chapter.

Sec. 8. As the result of many observations we have come to believe that, in general, increases or decreases of intensity correspond with increases or decreases in the degree of the

activity of certain nervous parts. But it is a well recognized fact that certain situations occur which we believe must necessarily involve increases and decreases in the degree of neural activity which do not carry with them noticeable differences of intensity. Apart from sudden changes caused by shifting clouds there is no appreciation of a change of intensity in the daylight from morning to evening, although it is very evident that the nervous activities due to the stimulation of the eye increase from dawn to noon, and decrease from noon to sunset. Here there exist in us differences of nervous activity, and to these must correspond differences of elemental intensity, which however are not noted.

But at once we are led to observe that the facts with which we are here dealing relate to the *discernment* of intensities, to use Stout's word, and not to the question of their existence. The *elemental* intensity in the first place is, as we have noted, never experienced as such in the systemic presentations of reflection. The discernment of elementary intensities involves their transformation before they can appear to us as intensities; and upon consideration it appears clear that changes in elemental intensity need not necessarily involve this transformation.

The recognition of change of intensity involves, as we have already seen, the production of a special "sense of relation"—of a special wave upon our symbolic noetic surface; and this must correspond with the production of a special neururgic wave upon our symbolic neururgic surface. It is true also that such a special neururgic wave must be due to the increase or decrease of activities in special neural parts; but it is clear that if all parts of the nervous system be supposed to be coordinately increased or decreased in activity, then although the whole neururgic surface will rise or fall, it will nevertheless remain placid;—no special wave form will appear upon it because of the increased or decreased *elemental* activities. So also if the elemental

intensity of all parts of the field of attention is coordinately increased or decreased, the whole of this field will appear as more or less efficient; but no special noetic wave will appear upon the noetic surface,—no special development of the intensity "sense of relation" will occur,—because of the increased or decreased *elemental* intensities which must be supposed to correspond with the general increase or decrease of activity in the nervous system involved.

Of course it is impossible to experience any case where the increases or decreases of activity in all parts of the nervous system are as fully equalized as has been above suggested: but surely we may expect to experience an approximation to such a case. We are thoroughly prepared therefore to find, as we have seen we do find, cases where differences of elemental intensity are not noticed; and the facts before us are properly expressed in psychological language by saying that very gradual increases or decreases of *elemental* intensity do not produce presentations which involve the recognition of intensity;—do not lead to sufficient emphasis in the psychic parts involved to set them off against the whole mass of the psychic system, and do not give rise to the intensity "sense of relation."

Sec. 9. We may now turn to the consideration of certain equally well recognized cases where distinctly different degrees of intensity correspond with what we feel reasonably certain must be equal degrees of activity in the special nervous parts concerned. If we awaken from sleep at midnight and look at the north star through a clear atmosphere we are apt to think "how very bright it appears to-night." But whenever we look through a clear atmosphere at the celestial pole the very same amount of light reaches us from this star, whether at midnight, or in the twilight hours when the star appears dim, or at midday when we are unable to note it at all. If the same amount of light reaches the eye in all such cases, then we must

assume that the parts of the nervous system which are aroused by this amount of light to a certain degree of activity at midnight are aroused by it to approximately the same degree of activity in the twilight hour when the degree of the intensity of the sensations involved is very much decreased, and at midday when no increase of light intensity is noticeable in connection with this ocular stimulation.

In the light of the considerations presented above we see that we should be led to expect to observe just such phenomena as those described above; for evidently any given degree of activity in a definite part of the nervous system can produce an observable increment to the activity of the whole nervous system only so far as the degree of activity of the part is great enough to be more or less sharply contrasted with that of the system as a whole, or of the minor systems adjacent to the part under consideration. Where the activity of the whole nervous system is of relatively low degree (as is the case when we awaken at midnight) then a given degree of activity in a special neural part may stand in strong contrast from,—may involve a distinct increment to,—the activities of the whole nervous system. But when the activity of the whole nervous system is of very high degree (as it is when we are fully awake and active at midday) then this same given degree of activity in the special neural part may fail altogether to stand in contrast from,—may involve no observable increment to,—the activities of the whole nervous system. And furthermore as there are an indefinite number of gradations between the lowest possible and the highest possible degrees of activity in the nervous system as a whole; so there must be an indefinite number of different degrees of contrast between the system's activity, and an activity of a given degree in a part of the system.

It thus appears that the degree of activity of a nervous part which enables this part to produce an increment of more

or less prominence in the neururgic pattern of the moment is altogether a relative matter; and correspondingly the degree of emphasis of a psychic part which enables this part to produce a presentation in the noetic pattern of the moment is altogether a relative matter. And unless such a presentation in the noetic pattern does occur we cannot experience the special resultant "sense of relation" which we describe as the apprehension of an intensity; and we should expect therefore to find that while the intensity of given psychic elements is fixed by the amount of activity of some corresponding neural part or parts, *our power of discernment* of this intensity will be relative to the condition of the activity, so to speak, of the whole psychic system,—of consciousness as a whole.

Sec. 10. But if distinctly different degrees of intensity at times correspond with equal degrees of activity in the nervous parts concerned; it is equally true that degrees of intensity which are appreciated as equal at times correspond with very different degrees of activity in the nervous parts concerned. And here we turn to the consideration of certain facts in relation to the quality of intensity which have been brought into great prominence by the able psychologists of our time. With these facts we shall deal very briefly, referring the student to other text books for all details; and this for the reason that if we are to take a broad view of the field of presentation as a whole we must not allow ourselves to concentrate our attention to any great degree upon what are really from our point of view but details of minor importance.

Sec. 11. 1st. If we are subject to continuously increasing stimuli, which we must assume to arouse corresponding increasing degrees of activity in the nervous parts stimulated, we observe certain facts which may be illustrated by recalling one's experiences when on a bright moonlight evening one awaits the illumination of an "electric tower,"

which is effected by the very gradual and continuous increase of the electric power sent through the wires supplying the small lamps distributed over the whole of the tower surfaces. The signal is given for the turning on of the electric power, but some moments elapse during which we note no change whatever in the appearance of the tower. We know that each little lamp is beginning to emit some rays of light, but we cannot appreciate it by any change in our sensations; nevertheless it is evident that if the lamps are glowing our eyes must be receiving from them certain stimuli which are producing increased ocular activity.

Suddenly we note a faint pink glow on the surfaces which appear fore-shortened in perspective, and where therefore the little lamps are brought close together in our angle of vision: but the surfaces of the tower which face us are still white in the moonlight. Suddenly again, these faces also assume this faint pink glow; and then the light increases very gradually until it has reached its maximum of brilliancy. Until the sudden appearance of the first faint pink glow there was no noticeable presentation which involved the appreciation of this glow; but, if a neururgic and noetic correspondence exists and is thoroughgoing, there must have been some change in consciousness as soon as the first ray of light was emitted by the little bulbs, even though this change was not appreciated.

Facts of this nature point to the existence of changes in consciousness which exist even though they are not appreciated as changes of intensity. This is acknowledged, although usually unwittingly, by all those who speak of the moment when sensations pass the "threshold of consciousness," for in this use of terms they imply a something psychic below the "threshold."

The explanation of the existence of the "threshold" in terms of our conceptions is not far to seek. We have here not a threshold of consciousness, but a "threshold

of discernment," *i.e.* of discernment of intensity. A certain degree of increased activity in a part of the whole nervous system is necessary before the activity of this part will appear as an increment to the activity of the whole nervous system,—before a noticeable alternation of the prevailing neururgic pattern will arise. So we should expect to find that a corresponding degree of increased intensity in a sensation, which is but a part of the whole psychic system, is necessary before the more intense sensation will appear as a presentation to the whole psychic system, before a discernible alteration of the prevailing noetic pattern will accrue, before therefore the special "sense of relation" can appear which carries with it the recognition of a degree of intensity.

Sec. 12. 2nd. We are here led to note the fact, which has greatly interested the psychological world during the past generation, that we have not one, but really an indefinite number of "thresholds" of intensity, and that the amount of stimulation necessary to enable us to pass from one plane of intensity, so to speak, to another varies in a fairly definite way, as the amount of the stimulus varies. This seems to be a proper, even if it is a somewhat unusual, description of the facts which have led to the formulation of what Fechner so modestly insisted upon calling Weber's law. It is now a commonplace observation that if a certain stimulation a is necessary to raise an intensity A of a given presentation to a higher intensity B; then a greater amount of stimulation $(a+x)$ is necessary to raise the intensity B to the greater intensity C, although the amount of increase of intensity from A to B is apparently the same as the amount of increase from B to C.

Fechner as the reader knows made an enormous number of experiments (over 76,000 we are told) to establish a law in relation to these changes, and finally concluded that the intensity of sensations varies in the same ratio as

the logarithms of their respective stimuli. This law has been subject to much discussion, and many attempts have been made to restate it in a form which will thoroughly accord with the facts brought out by experiment. One of the latest of these restatements is that of Lloyd Morgan, who puts it thus: "To determine equal increments of sensation there are required increments of stimulus in geometrical progression." But we are not here concerned with the exact formulation of this law, which by general agreement holds only within certain wide limits; rather are we concerned with the general fact that what appear as equal increases of intensity in a given case require ever increasing amounts of the particular stimulation which calls forth these equal increases of intensity; and with the interpretation of this fact in terms of what we know concerning the activity of the nervous system.

Sec. 13. When we turn to this consideration we recall that in an earlier chapter we have shown that we must agree that each presentation must be new and unique, and we therefore note that what we call a discernible change of intensity of a given presentation (A) involves the appearance of what is really a new presentation (A^1) of higher intensity than (A); and when thus viewed we are led to see that a proper consideration of the nature of the activities of the nervous system as a whole should have led us to expect to find the facts here considered exactly as we find them.

Let us suppose ourselves standing by a small pool of water the still surface of which mirrors the sky above. If now we throw little pebbles at regular intervals into the pool little waves will ruffle its surface, and the disturbance of the whole surface will gradually increase as each additional pebble is thrown in. But presently we notice no change in the agitation of the surface as the pebbles are thrown: we find that larger stones must be thrown in if a change in the agitation

of the surface is to be noted. And we discover that larger and still larger stones must be successively thrown into the pool if we are to continue to notice equal increases of agitation of the surface.

If an increase of activity of a definite and sufficient amount appears in a part of the nervous system due to a definite increase of the stimulation of this part, this increased activity of the part will appear as an addition of activity to the neururgic system taken as a whole. This activity of the part however will gradually spread its influence throughout the system, which as a result will gradually become more and more active as a whole. Under such conditions the above-mentioned definite increased stimulation of a special part, while it still produces a coordinate increased activity of the part affected, will produce an activity which presently no longer stands in contrast with the activity of the whole system, as a neururgic increment. If now a neururgic increment in the part is to be produced equal in proportion to that noted when the system as a whole was more quiescent, then a higher than the first degree of stimulation must reach the part, and a higher than the first degree of activity must be induced in this part.

We thus see that if presentations in consciousness correspond with increments of activity in parts of the nervous system, then equally discernible changes in the intensity of a given presentation must involve augmented increases of stimulation to the nervous parts whose activity corresponds with the presentation in question; and we should expect to find it true in a general way that "to determine equal increments of sensation there are required increments of stimulus in geometrical progression."

Sec. 14. 3rd. We may now turn from these broad considerations to some aspects of the discrimination of intensities which are less easy to explain. We have noted that where stimulations, as measured mechanically, increase regularly

and gradually (which theoretically involves gradually increasing elemental intensities)—our power of discrimination of increases of intensity fails altogether where the increase of stimulation is very gradual; and especially that where this discrimination is made it is noted not as gradual but as arising as it were by steps and bounds; and we have seen reason to believe that these noetic relations correspond in general with similar neururgic relations.

But why these steps? Why should not every increased degree of stimulation have its corresponding discriminable increase of intensity? Or to put the problem in another form; if we fail altogether to notice certain very gradual increases of intensity, as we have seen is the case, why are any increases of intensity ever noted? Why do increases of intensity ever result in the appearance of the general intensity "sense of relation" as a presentation? Why should the element of time, as involved with the greater or less rapidity of the change, thus enter in to make this vast difference in our conscious experience? The continuous increase in degree of stimulation is the same in both cases; and why then should the time during which this increase takes place make all the difference between no discrimination of difference of intensity, and the most vivid of such discriminations?

It must be acknowledged at once that this problem is very easily confounded with the problems connected with the shiftings of attention which we shall discuss in a later chapter: but that it is a problem apart from attention is shown in the fact that there are certain cases, *e.g.* those which are commonly considered by the laboratory student, where attention is concentrated, and even expectant, and where the intensity quality appears as the simplest of presentations, where in other words confusion with the problem of attention is not involved. But it is in these experiments that the phenomenon we are here considering appears most marked:

the discrimination of increases of intensity is given in certain discontinuous movements when the increase of stimulation is known to be mechanically continuous.

It would seem to be most natural to assume that the continuously increasing stimulation, while involving some increase of nervous activity, does not produce continuously increasing degrees of nervous activity, but that this neururgic increase also proceeds by steps as does our power of the discrimination of intensity. As our psycho-physicists have noted, the power of discriminating small degrees of unlikeness is greatly improved by practice, a fact which not only shows that there is great variability in the various "thresholds of discernment" but also seems to indicate that there must be some physiological change of condition in coincidence with the practice: and if the basis of these "steps" is neurological, it is easy to see that practice might change the length of the neurological steps, if we may so speak, to which changes of discrimination correspond.

Some psycho-physicists of importance[1] have assumed however, and I cannot but think without due warrant, that the increases of nervous activity are as continuous as are the increases of degree of stimulation, and that the lack of continuity is to be discovered only in our conscious experience. They have thus practically claimed that the process is a psychological one only, and that there is no correspondence in the neururgic process. If this view could be maintained it might be held to militate against the doctrine that noetic and neururgic correspondences are thoroughgoing. It is a satisfaction therefore to find that many of our later psycho-physicists have abandoned this view and

[1] In the words of Dr. A. D. Waller, *Brain*, 1895, Fechner and Wundt subscribe to the view "that the transforming factor is psychological, *i.e.* between the sensificatory change and the sensation. Pfeffer, Delboeuf, and others hold that the disproportion is physiological, *i.e.* between the stimulus and the sensificatory change."

agree that there is probably a discontinuity of increase of degree of nervous activity in connection with a mechanically continuous increase of stimulation, in correspondence with the discontinuous steps noted in our appreciation of increase of intensity.

Sec. 15. In this connection it may be well to note that under the hypothesis hitherto maintained, it does not appear difficult to account for such a discontinuity of increasing neururgic increments, as the result of mechanically continuously increasing degrees of stimulation. The activity of a neural element, if such could be isolated, would probably be found to increase in direct proportion to the increasing degree of its stimulation, and this increase of activity would continue until curtailed by exhaustion of the nerve element. The presentations in consciousness however, not being elemental but systemic, are supposed to correspond with the activities of complex minor nervous systems within the broader system in which differential functioning obtains, certain parts of the system being given over to the regulation of the nutritive supply to the parts which are very important for our consideration. Under such conditions as obtain in the complex nervous system of men we should therefore expect to find increases of activity marked by irregular, or more or less rhythmical, pulses. For a minor nervous system which is acted upon by a stimulus which is continuously increasing in degree cannot increase its degree of activity without the breaking down of its substance: and this breaking down of its substance involves a lessening of its activity unless fresh nutriment is received to build it up again. Under a continuously increasing stimulation a corresponding reaction to this increase on the part of the organ stimulated can only occur as the result of the gain of an unusual supply of nourishment which the stimulated part calls for through its connection with the parts of the system specially related to the regulation of

the blood supply. But some appreciable time must elapse between the reception of the stimulus by the part, and the effect upon the system which is to result in the gain of an increased supply of nourishment to the part stimulated; and some appreciable time must be occupied in carrying the extra nutrition to the organ which calls for it. By the time the call for the extra nutrition is answered, the continuously increasing stimulation may be supposed to be producing a reaction which is tending to wane. But when the extra supply is received the part will be in condition to react fully to the increased stimulus, and it would seem probable that it would do so with a bound, so to speak. At the same time the call from the active part for extra nutriment would cease; and if the stimulation continued to increase in degree the stimulated part would presently again call for more nutriment, which would be sent forward, and which would again enable the part, whose capacity to fully react to the increased stimulus was waning, to react fully to the demand upon it: and here again the full reaction would come with more or less of a bound, if we may so speak.

These more or less regular pulses of increased activity in the part would suffice, under this view, to produce neururgic increments which would result in more or less prominent changes in the form of the neururgic pattern existing at the moment. Correspondingly then on the conscious side we should expect to note that continuously increasing stimulation would give us the apprehension of increases of intensity in pulses as it were; and this is exactly what happens, as we have already seen.

Sec. 16. It may be well before passing from this subject to make note in this connection of one bit of evidence corroborative of the general view maintained in this work. Where certain systems are thoroughly coordinated and are subject to regular or regularly recurring stimuli, rhythms of

nutritive supply might be expected in the process of development to come to correspond more or less exactly with rhythms of demand occasioned by stimulation. Although it is true that the more complex the system, the more will this correspondence be liable to disturbance; yet on the other hand the more are we likely to have in such a very complex system a large mass of the system under usual conditions showing this correspondence between the demands occasioned by the stimulus and the rhythmic supply of nutriment. As a consequence we should expect to find that only in limited parts of the nervous system will it be possible to set up increased activities which will result in the production of neururgic increments which will produce marked changes in the neururgic pattern of the moment in question: and we should expect to find therefore, what we certainly do find, that only in limited parts of consciousness is it possible to gain such discernible presentations to the Self, as involve appreciable changes of intensity.

Sec. 17. As we have seen, we can never allow ourselves to lose sight of the existence of the ever effective unemphasized part of the psychic system—the Self—which when presentatively given appears as the empirical ego. We should expect therefore to note in cases of self-consciousness the empirical ego affecting the discernment of intensity. That such is the case cannot be questioned, but as it appears most clearly in the states which we describe as states of attention discussion of this subject will best be reserved for later consideration.

SUB-DIVISION II. GENERAL QUALITIES INVOLVING THE RELATION OF MORE OR LESS, AND DETERMINED BY THE COMPLEXITY OF PRESENTATIONS

CHAPTER IX

MANIFOLDNESS

Sec. 1. In Intensity we find a general quality of all presentations, and one involving the relation of more or less. We have reason to believe that what we call elemental intensity would be found to inhere in hypothetical psychic elements as such, were we able to isolate them; and that intensity as we appreciate it is transformed, as it were, since consciousness is systemic and not elemental. We naturally inquire therefore, whether there may not be other general qualities, of the same general type as intensity, which depend for their existence upon the fact that consciousness as we experience it is a system of minor systems of psychic elements. Here again we may hope to find guidance in our search by observation of the nature of the activities of the system of minor nervous systems of nervous elements which we assume to correspond with the psychic system we call consciousness.

Sec. 2. If it is true that each element of the highly complex nervous system is more or less active while it has life; and if, as is certainly the case, the system is subject to very diverse stimuli from its environment at each moment; then at each moment there must exist a multiplicity of

emphases of activity of greater or less degree in the several parts of the whole system. At any one moment we are likely to find some of these emphases predominant; but by the side of these there will be less dominant emphases; and even within the predominant emphases themselves will appear varied minor emphases. We may here again compare the activity of the nervous system at any moment to the surface of a liquid upon which various wave patterns are developed; where we discover great billows upon which minor waves appear.

Sec. 3. But if these complex emphases of activity in the parts of the nervous system correspond with the presentations which are given in consciousness, then we should expect that at each moment our presentations would display a multiplicity determined by the greater or less degree of noetic emphasis in the several parts of the psychic system, *i.e.* of consciousness. At any moment we should be likely to find some of these psychic emphases predominant; but given with these less dominant emphases, and within the predominant psychic emphases themselves, minor emphases. In other words, while we should expect to discover special presentations which seem to be pre-eminent, nevertheless a careful observation should show us, given with these, certain minor presentations less notable but still differentiable; and even within the pre-eminent presentations themselves we should expect to note certain of these minor presentations.

We should therefore expect to find consciousness as observable always displaying a general characteristic, or quality, which is determined by the varying number of these minor and major partial presentations, a quality which must therefore always involve the relation of more or less. It seems clear that we find such a general psychic characteristic or quality in what I shall call *Manifoldness*: more or less of this manifoldness being observable as inherent in all of our presentations.

Sec. 4. All will acknowledge that those presentations which we designate as thoughts or conceptions are very clearly complex, *i.e.* they display an easily recognized measure of manifoldness. No one would claim that the thought of what I am writing, or of what the reader will peruse on these pages, is other than a manifold. You cannot reflect upon any concept, say the "theory of development," without recognizing at once that it is a presentation in which manifoldness is very marked. And it is clear also that within this field of thought this manifoldness varies in degree. The student's notion of Psychology becomes more and more complex as he continues his early studies: but presently the notion loses in manifoldness as he discovers fundamental laws which are traceable throughout the intricate details which his first studies brought to light; the recognition of these laws involves the prominence within the given presentations of broader emphases, less numerous but more marked than the less marked and more numerous emphases which were at first prominent.

So it is of percepts. When I think of the friend who steps into my study as I write and speaks to me, the presentation referred to by my simple words of description is clearly most complex or manifold. And our percepts also very evidently differ in their manifoldness, as becomes clear when, with this quality in mind, we compare such a relatively simple percept as "the hound" with such a relatively complex percept as the ever shifting and broadly diffused gleam of the aurora borealis.

Our emotions very obviously display much of manifoldness; which also varies in degree. Love seems pervasive and broad in comparison with fear: yet fear itself is clearly most complex. And what we call fear itself varies in manifoldness; as is seen if we compare the fear that, if speaking with care, we would call indefinite dread, with the much more clear and distinct and definite fear which arises

when for instance we discover a dangerous animal rushing upon us.

Sec. 5. But when we turn to our sensations the case is not so clear. So simple indeed do our most marked sensations appear that, as we know, sensations in general have been treated by many of the earlier psychologists as psychic atoms, as it were, from which by composition other more complex mental states may be derived. Evidently such a theory could scarcely be maintained except by one who denied, or overlooked, the existence of the general quality of manifoldness in the simplest of our sensations.

That certain of our sensations, *e.g.* those of temperature, and smell, and taste, and touch, are diffused and display much of manifoldness, is not in doubt: but until very late times it has not been realized that all of our sensations—*e.g.* those of sight and hearing—display this manifoldness. Indeed, as the reader well knows, it is one of the important modern observations that even our clearest cut sensations are always more or less complex; a fact that has been brought out sharply in connection with modern investigations of space-perception.

The study of the nature of the quality which results in our attachment of spatial attributes to certain presentations has led some of our leading psychologists to observe a certain massiveness (Bain), which is distinctly a spatial quality, and which appears in connection with certain of our sensations, *e.g.* heat, smell, taste, touch, etc. Having been led to look for this same quality in the sensations of sight and hearing, certain psychologists claim to have discovered it in what they call "extensity," a term suggested by the pioneer investigator in this direction, Dr. James Ward. Ward has been followed by James and Stumpf and many others in upholding this view, so that one who questions its accuracy as I have done above[1] must do so with much diffidence: but

[1] Confer Appendix A, Secs. 21 ff.

we may note that it is not clear that Dr. Ward and Dr. James, and others who follow them, have not in their introspection confused what we here call the manifoldness of these sensational experiences with the extensity for which they are in search; and it is not difficult to see that there is a marked difference between the two qualities. At all events the investigations made by these keen thinkers have certainly shown us conclusively that even the simplest of our sensational experiences are never really absolutely simple, but always display a certain degree of manifoldness, as we should be led to expect would be the case.

Sec. 6. We find then in Manifoldness another general quality of all presentations which involves the relation of more or less, and which may therefore be placed in Group 1. together with Intensity which we have considered in the previous chapter.

It is to be noted here in relation to manifoldness, as was noted in relation to intensity, that the greater or less manifoldness of a presentation must always be experienced; but that it is not necessarily always specifically recognized. When manifoldness is recognized as such it is appreciated in reflection in itself as a presentation of a specific form. The manifoldness of any given presentation is appreciated as more or less by comparison with the degrees of manifoldness of other special presentations as given in the form of secondary presentations or "images" in reflection; or else with the manifoldness of the field of attention as a whole. The recognition of the manifoldness involves the appearance of a special wave form in our symbolic noetic pattern;—it involves a special "sense of relation" which is as definite a presentation as is any other of those senses of relation of which we have elsewhere spoken at length. When we appreciate a degree of manifoldness it is because this special "sense of relation" is given at the moment.

Sec. 7. The degree of manifoldness of a given presentation is a relative matter, determined by the greater or less number of partial minor emphases within the whole major emphasis which we designate in a broad way as the presentation of the moment. Evidently the degree of emphasis in these minor parts of the manifold must vary, and must fade away, if we may so speak, into the undifferentiable psychic mass of those parts of consciousness against which the presentations stand out in contrast; even as the countless waves of an agitated liquid surface shade off from great billows into lesser waves, and these into less marked wavelets, and these again into the undifferentiable perturbations of the great surface which give us the appearance of a mass against which the just observable wavelets, and the more marked waves, and the greater billows, stand contrasted.

Sec. 8. It is clear that the realm in which the quality of manifoldness is most marked in introspection is that diffused part of the field of attention which is most closely allied with the undifferentiable mass of the psychic system to which the presentations are given. It would appear then that the very excessive manifoldness within the unemphasized psychic mass beyond the limits of the field of attention is coordinate with its existence *as an undifferentiable mass*, to which the less manifold presentations are given. But this undifferentiable psychic mass is under our hypothesis the Self to which presentations are given; out of this realm in which manifoldness is pre-eminent therefore we must expect to find arising the influences which are attributed to the Self, and which when explicit are attributed to that presentation of special form, which is a simulacrum of the Self, and which we designate as the empirical ego. The undifferentiable unemphasized part of the psychic system thus, so far as it acts to make manifoldness prominent, tends to bring into existence as a presentation the empirical ego of self-consciousness.

CHAPTER X

REALNESS

I

Sec. 1. In the preceding chapters we have considered two general qualities of presentations which involve the relation of more or less: a certain degree of Intensity, and a certain degree of Manifoldness, we have found must attach to each presentation, whether their presence is appreciated or not.

Of these we have noted that Intensity is a quality which would attach to a psychic element if such could be isolated, and that this elemental intensity is known to us only as it is transformed in connection with our experience of presentations which are not elemental but are complex systems of minor psychic systems. Manifoldness on the other hand we have found to be a general quality which could not be given in connection with a psychic element, even if such an element could be isolated; but which is determined by the fact that our presentations are thus complex systems of minor psychic systems.

When we take another point of view we recall, as we have seen in Chapter v., that apparently each primary perceptual presentation is accompanied by an overwhelmed secondary presentation, which latter develops when the primary presentation ceases to exist.[1] Thus in any moment

[1] The reader will recall our symbolization in Chapter v. of the simplest possible primary presentation as follows:

$$\left\{\begin{matrix}{}^{\gamma}p^{1-2-3^{\circ}4\circ5^{\times6}}\\ {}^{\gamma}p^{1-2-3^{\circ}4\circ5^{\times6}}\end{matrix}\right\};\ {}^{\beta}p^{1-2-3^{\circ}4\circ5};\ {}^{\alpha}p^{1-2-3^{\circ}4}.$$

the form of the presentative field must be determined in part by the resultants of the development of secondary presentations given in past states. Thus within given presentations certain minor emphases may appear which are revivals of antecedent successive presentations which were more or less alike. These revivals then may well appear at times to be what we call identical with each other, and they will therefore seem to persist more or less fully while the major presentations in the body of which they are incorporated seem to change.

We should therefore expect to find evidence of the existence of a general quality of all presentations given by the appreciation of this greater or less persistence or stability of minor emphases within these primary and secondary presentations within the wholes of the complex presentations. This quality would be one which would naturally be grouped with Intensity and Manifoldness as a quality involving the relation of more or less.

II

Sec. 2. Let us suppose ourselves standing on a bluff overlooking a lake, and watching its wave-broken surface.

(1) If we choose to pay attention to any little wavelet, we note that it moves over the surface apparently quite without reference to the other disturbances of the sea, and with a stability all its own ; running on, now over the crest of some great billow, and now deep in the trough between two. Whatever pattern prevails at the moment on the surface of the sea as a whole, the little wave plays on for a while whether it is important or not: but we note that we must keep close watch of it or it will soon be lost to view ; it tends to disappear within, as it were, the larger waves and billows which persist.

(2) If we pay attention to the surface of the lake as such,

and consider the pattern upon its surface as a whole, this pattern is apparently not disturbed by the little wave at first considered ; and although we know that the form of the pattern is in some measure modified by the little wave, still, from our present point of view, the main surface pattern appears relatively stable, and the little wave form relatively unstable.

(3) It is true, as we have just said, that each little wavelet has its influence in giving form to the main pattern of the moment observed: in the next moment the little wave may have less of stability in itself because of inhibitive influences arising out of the existing broader pattern ; but on the other hand its stability in this next moment may be increased because of other influences arising from within the existing pattern which sustain and support it.

Let us now suppose that the lake surface is undisturbed by any but very small ripples due to a gentle breeze. A pattern is developed on the surface, but it is one of no very emphatic form. But if (4) I throw a huge stone into the little pond, at once the indistinct wave pattern on the surface is lost to view, and the big wave formed by the large stone determines a new and relatively stable form of wave pattern.

(5) But suppose instead of throwing in the huge stone I throw in at intervals little pebbles at the same point on the surface. If I throw them in at exactly the moments of wave depression the little waves formed will reinforce those already existing, and will add stability to the pattern of the moment. If however I throw them in at the wrong moments, the existing wave pattern will be disturbed, rendered less stable.

Sec. 3. We have seen in previous chapters that we may use wave surface conditions as symbols of the nature of the activities of the nervous system of man. The neururgic pattern of any moment is a most complex one due to the many emphases of activities induced by various environmental forces which are at the moment, or have been in the

past, impressed upon the nervous system. If the form of the patterns in successive moments is considered, we will note, in correspondence with what we have said in the previous section:

1st. That each of these emphases of neural activity will have a stability all its own. When we speak of this stability we of course do not mean to indicate that in two successive moments there is an *identity* of form; but rather, as we have already seen, that there is basis for that comparison in future moments which leads us to say that the form of moment 1 is "very like" the form of moment 2. 2nd. In the second place it is to be noted that each neururgic emphasis must have more or less of stability in relation to the pre-eminent neururgic pattern existing at the time of the appearance of this emphasis: even as the little wave appears in a different light if we are viewing the wave surface pattern as a whole. And 3rd, the grade of stability of each neururgic emphasis will vary as it bears relation with various types of neururgic patterns which may be pre-eminent at the time of its appearance; even as we have seen that the little wave on the liquid surface may in successive moments have less or more of stability according as it is inhibited, or supported, by the existing pre-eminent wave pattern.

4th. It appears also that very powerful or persistent stimuli may result in neururgic emphases which will compel the formation of a new pre-eminent neururgic pattern which will be relatively stable; even as the throwing of a huge stone into the still pool will determine the formation of a new and relatively stable wave surface pattern. 5th. But evidently, *in general*, the grade of stability of a special neururgic emphasis will be determined by its capacity to combine with, or not to combine with, the neururgic pattern existing at the moment of the appearance of this emphasis. Between the cases where there is little relation between the new emphasis and the pre-eminent neururgic pattern of the

moment, and the cases where there is the closest conceivable relation between the two, there will be all grades of possible relation ; so that the new emphasis may under different conditions display all grades from the most extreme of instability to the most perfect stability. Thus each neururgic emphasis must display more or less of stability (varying from extreme stability to extreme instability) in relation to the development of the whole neururgic pattern of the moment in which it appears.

Finally it is to be noted that a new emphasis may harmonize or assimilate with emphases within minor systems which are not pre-eminent in giving the form of the neururgic pattern of the moment ; but which may thereupon become pre-eminent in the determination of this form. And it is clear that this assimilation may be due to the existence within the wide mass of the nervous system of capacities to form neururgic patterns harmonious with this new emphasis ; —capacities which before the occurrence of the new neururgic emphasis are potential merely and not clearly related to the emphases pre-eminent in giving form to the previously existing neururgic pattern. The importance of this point will appear later.

III

Sec. 4. Inasmuch as the neururgic emphases above spoken of are correspondent with those noetic emphases which we speak of as presentations, we should expect to find, in connection with our presentations, conditions of relative stability corresponding with those above described as connected with neururgic emphases. Furthermore this more or less of stability must itself affect the nature of the presentation in which it appears, and it must itself involve the existence, within the whole complex mental state, of a special minor emphasis or presentation, a special " sense of relation," which under favorable conditions may be con-

sidered in and for itself. We may expect therefore to find that we apprehend the existence of a general quality of all presentations due to this relative stability of certain minor parts of complex presentations, which quality will therefore be found to involve the relation of more or less.

It is to be noted that the assertion that this stability exists does not stand in opposition to the view that each presentation is a perfectly new experience. All that is implied is that we experience complex presentations of triple emphasis which involve the comparison of, and declared likeness between, what we call successive experiences. This so-called identification of successive states is indeed the basis of this notion of stability.

The question then arises whether this general quality is recognizable, and if so by what name it is to be designated. It must in a sense attach to each moment's presentation in the very fact that this presentation exists as such, whether it is, or is not, assimilated so as to affect appreciably the consciousness of future moments. If it is recognizable in reflection, then each specific presentation, as it stands in relation with the whole field of presentations of the moment, must always display more or less of it; and the emphasis of this quality as attaching to a given presentation as viewed in reflection must vary with the nature of the whole psychic field at the moment under consideration. A given presentation may have a high degree of this quality in relation to one moment's noetic pattern, and yet may have a very low degree of this quality in relation to that of another moment; and this without involving any difference in the initial presentation itself in the two supposed cases: this quality therefore must be a quality of relation.

No one who is familiar with the trend of modern psychological teaching, especially as it has been elucidated by Professor William James, can fail to recognize that the general quality we have been here describing is the quality

which is usually considered under some such descriptive term as the "sense of reality": but which I shall speak of as Realness; a quality which varies in degree from a maximum to a minimum, to which latter we are wont to give the name Unrealness.

It is to be noted here that much difficulty is caused in the study of this subject by the use of the word "reality" with diverse connotations.[1] Reality, as I shall employ the term, is a concept of a special form of which I shall speak more at length below. But unfortunately this word is also used very carelessly, by laymen and psychologists alike, to refer also to this general quality of all presentations which I call realness:[2] this leading to many confusions of thought and speech.[3]

[1] Prof. J. Mark Baldwin uses the term "reality feeling" (*Feeling and Will*, chap. vii.) in contradistinction from Belief. The reader will note later that I distinguish the realness of a presentation from that appreciation of enforced realness which arises with belief.

[2] Thus Prof. James (*Psychology*, ii. p. 283) tells us that "in the case of acquiescence or belief the object . . . is held to have reality." If this is correct usage then the words "believed by the complete philosopher" are equivalent to "held by the complete philosopher to have reality." Where then we read (p. 291) "the world of absolute reality, *i.e.* reality believed by the complete philosopher" we might read "reality held by the complete philosopher to have reality" which is evidently meaningless unless the word reality is used in the one case to refer to the concept and in the other to the quality which I would call realness.

[3] As one instance, where many might be given, we may take a statement made by Mr. F. H. Bradley in his *Appearance and Reality*, the subject matter of which surely called for the most careful definition and use of the terms here under consideration. On page 225 of the work referred to Mr. Bradley says: "It is mere thoughtlessness that finds in Resistance the one manifestation of reality. For resistance, in the first place, is full of unsolved contradictions, and is also fixed and consists in that very character. And in the second place, what experience can come as more actual than sensuous pain or pleasure."

Very evidently Mr. Bradley, when he wrote the above lines, meant to convey the impression that the *actuality* of sensuous pain refers to the same

It is to be noted also in relation to realness, as we have noted in relation to intensity and manifoldness, that while the greater or less of stability or realness in connection with a given presentation must always be experienced, nevertheless it is not always necessarily appreciated as such. When the realness of a presentation is recognized as such, it is appreciated in reflection in itself as a presentation of a specific form ; its recognition involves the prominence of a special " sense of relation " which is as definite a presentation in reflection as is any other of the " senses of relation " of which we have already spoken. It is appreciated when by holding a complex retrospective presentation before us we note the nature of some given minor emphasis in the successive noetic patterns covered by this retrospect. The realness of the given partial presentation within this complex is appreciated as more or less by comparison with the degrees of realness of other special partial presentations, or with the degree of realness given in the field of attention as a whole as this field is considered in reflection.

If the recognition of realness is thus determined, it is evident that the fullest grade of realness in connection with a given presentation, a grade which is undisturbed even as is necessary in the operation of comparison, will tend to fail of recognition ; and this we find to be the case. Just as an intensity which is fully coordinated with the varied intensities of the system as a whole fails to be noted : so also we fail to note fully established grades of realness ; we take both for granted ; the realness and the intensity senses of relation fail to appear as noticeable presentations. It is thus

characteristic as the *reality* mentioned in the first sentence quoted : and this I imagine because in current language, the words " can have more *reality* " might be substituted for the words " can come as more *actual*." But clearly in this latter case he refers to what I call the realness of the pain, and not to *reality*, properly speaking, at all. If then he refers in his first sentence to *reality*, properly speaking, his reference in the last sentence to the actuality of sensuous pain is entirely without significance.

for instance that the common man fails altogether to appreciate the fact that he trusts to the realness of objects in the outer world unless question is raised in regard to this realness: then to be sure he has no hesitancy in asserting this realness, and will even probably consider the question itself ridiculous; but apart from the questioning the appreciation of this realness is lacking.

IV

Sec. 5. Let us consider this matter a little more fully, referring back by number to the points made in relation to the neururgic correspondents in the previous divisions of this chapter.

(1) If realness is such a general quality of presentations as we above suggest, then we are prepared to note that *each presentation, as such, has a certain form of realness in the fact that it exists.* In other words, if I have a sensational presentation it is a real sensation. If I have an emotional presentation it is without doubt a real emotion. If thoughts, concepts, or percepts are given, they are real thoughts, real concepts, real percepts. This the reader may say is a mere platitude; but that it is a fact well worthy of consideration appears clear when we consider that we often describe these very presentations as unreal. How do I happen to say that this conception of the earth as a flat surface is unreal?—that this ghostly percept is unreal? Considered as presentations the concept is surely a real concept and the percept is as surely a real percept. This observation at once compels us to agree that this quality of realness is a quality of relation; that in one aspect a presentation may have much of realness, while in another aspect it may have very little of realness. It shows us that realness is no such certain, and fixed quality as it is likely to be considered by the common man, who usually thinks that

presentations must be either real or not real, and that there is no middle ground except in his own failure of discrimination,—no sense in which a presentation may be both real and unreal at the same time from different points of view. But such is surely the case, and to the consideration of this aspect of realness we turn in making our second point.

Sec. 6. (2) *Each special presentation must have more or less of realness in reference to the total noetic pattern existing at the moment of its appearance.*

If during a cold snap in winter you say "there is ice on the Park lakes; get your skates and come off with me for some exercise"; there is an immediate sense of realness in connection with the presentation "the ice is formed on the lakes." But the case would be quite different had you made the remark in midsummer. I would then either think you had gone mad with the heat, or else were chaffing me.

It is to be noted that these differences of realness do not have to be considered and thought out; whether their existence as such is appreciated or not, they are immediately experienced as presentations exactly as all other "senses of relation" are. It is true of course that we do at times hesitate to accept the realness of certain presentations; but this is because they actually gain in one moment a realness which they lose in another moment, as they are related to diverse noetic patterns in the several moments in which they appear. And this brings us to our next point.

Sec. 7. (3) *The realness of any special presentation will vary according as it bears relation to one or another of various types of noetic patterns which may be pre-eminent at the time of its appearance.*

Although we recognize that each presentation as such is real *per se*, so far as it occupies practically the whole of the moment's presentative field; nevertheless, we also recognize that when, as considered in reflection, it does not thus occupy the whole

of this field, it must be more or less real as it stands in relation to other parts of, or to the whole of, the field of the moment ; and that the degree of its realness as viewed in reflection must vary with the nature of the field of presentation at the moment under consideration. In other words, a given presentation may be very real in relation to one moment's " noetic pattern," while it may have a very low degree of realness in relation to the " noetic pattern " of another moment, and this without there being any practical difference in the initial presentation itself in the two cases.

Sec. 8. We thus find our attention turned to the important fact that there are diverse realms of realness,[1] and that these realms are divided into smaller kingdoms, and still smaller dependencies. The realm of realness in which we dwell when we assume the rôle of the introspective psychologist is quite diverse from the realm in which we abide when we are concerned with every day objects in the outer world. Introspectively we say this " ghost " is real as an impression or thought ; but in the objective world realm it appears as markedly unreal. And among these objects in the outer world again there is the greatest difference ; say between the realm of realness to which light and shade considerations belong in which shadows appear of great importance, and the realm of realness in which ice forms, and water evaporates, and living men move and breathe. And among these objects the minor realm of realness in which living men exist is itself diverse from the minor realm of the chemist in which H_2O assumes its diverse forms.

In this connection I would ask the reader to note that, as presentations which exist in diverse realms of realness are diverse in the fact that they assimilate with diverse noetic patterns ; so evidently it is impossible to leap from one

[1] Dr. James would describe these as diverse "orders of reality." Cf. *Psychology*, ii. pp. 287 to 298. Also F. H. Bradley, *Appearance and Reality*, pp. 187, 188 and 370.

realm of realness to another in practical life without risk of disastrous consequences. If we are following a guide on a difficult trail along the brink of a precipice we must keep our thought in the living-man realm of realness, and must not attempt to guide our footsteps by reference to the movements of our guide's shadow.

In our every day life it is all too easy to step thus from one realm of realness to another, and we do this often by the use of words and phrases which are employed alike to refer to our presentations in such diverse realms. But the reader will at once agree that in so doing we are likely to become involved in verbal fallacies. The same words and phrases have different connotations as they assimilate with different noetic patterns, *i.e.* when they are within diverse realms of realness. We cannot therefore properly argue from premises in one realm of realness to conclusions in diverse realms.

The order of realness in which we dwell when we are considering objects in the outer world is quite diverse from the order of realness in which we dwell when we are thinking of those of our mental states which are not objects in the outer world, *e.g.* our pleasures and pains. As practical men dealing with the realness or unrealness of objects in the outer world we are not warranted in applying our standards of realness as related to objects in the outer world to the realm of shadows, and much less to the realm of our own so-called introspective states. Shadows as such, and our pleasures and pains as such, have a realness all their own: but these realms of realness are not the realms of realness of practical life.

In this connection we may emphasize the impropriety of passing carelessly from the realm of realness in which are included objects in the outer world, to the realm of realness in which exist those metaphysical conceptions which lead to the question as to the place of evil and pain in a world of

the Absolute ; for the main objection to the attitude of mind of the " Christian Scientist " and others of his ilk, lies just here. Healthy and diseased bodily conditions are objects in the outer world. Our metaphysical theories of the universe are in a diverse realm of realness. In the latter realm it may be argued with much force, as it is by a certain school of philosophers, that men's bodily diseases, and their pains, are intrinsically unreal if the Universe is to be viewed from the standpoint of the Absolutist. This notion, imperfectly understood, the Christian Scientist has taken to himself. But he is here thinking in a realm of realness quite diverse from that of the realm of practical life in which we deal with objects in the outer world. He jumps from premises made in one realm to conclusions made in the other realm. In the philosophical field of realness, as he understands it, he says disease and man's bodily pains are unreal forms of thought, and he jumps to the diverse realm of practical life and tells us we must not employ doctors.

We have here the basis of the most ordinary of delusions and illusions. It is not that these are unreal in themselves as experiences ; for surely nothing is more real to the insane than these very delusions and illusions. The difficulty with the afflicted man lies for the most part in the fact that he misplaces his presentations, and makes them part and parcel of realms of realness from which the normal man excludes them unhesitatingly.

Sec. 9. (4) *A very emphatic, or very persistent presentation may gain a large measure of realness, irrespective of the form of the noetic pattern existing at the moment of its appearance.* Any very marked sensation, or any very emphatic thought, say the presentation which arises if we hear the cry of murder, involves a large measure of realness due to the very strength of emphasis of the presentation itself.

A presentation which lacks realness may be given this quality by mere increase of emphasis. A low rumble in

the air may be heard and listened to, but may result in no realization of an approaching storm, even if our companion says "we are going to have a thunder shower." But a loud clap of thunder at once brings us to our feet to run to shelter from a real storm. The mere change in intensity has given realness to the thunder storm presentation.

Again, all very persistent sensations, even if not very emphatic (say the slight lumbago from which I am suffering as I write), all very persistent thoughts (say the "ideés fixes" of the insane) involve a large measure of realness of the presentation. A presentation which lacks realness may be given this quality by persistent repetition. The first suggestion that Johnson is dishonest makes no impression upon me: but the mere fact that ten people, all of whom have read the same newspaper, tell me the same story of his alleged dishonorable conduct, puts me as much on my guard against him as though he were a proven thief. All those who study the rise of illusions in the insane know well how mere repetition of an idea will give it sufficient realness to make it an important element in the conscious life of the patient.

Sec. 10. From one point of view "objects in the outer world" are, as we have seen, complex systematized concepts which when examined are found to connote a realness which appears to involve an existence quite independent of mental states as exclusive of them, and therefore quite independent of our recognition of their existence. This very marked and distinct realness is determined by the forcefulness of, and the repetition of, what we call identical sensational and kindred elements involved with the perception of these outer-world objects; which forcefulness and repetition necessarily produce a relative stability of a high order in the presentations involved. So marked is this characteristic of our percepts that psychologists since Hume have even been led to hold that the very essence of the realness of all pre-

sentations is due to their revived connection with sensational experiences ; and even so advanced a thinker as Prof. James, although he does not hesitate to state that "any relation to our mind at all, in the absence of a stronger appeal, suffices to make an object" (I should say presentation) "real," nevertheless still clings to the view that[1] "sensible objects are thus either our realities or the tests of our realities. Conceived objects must show sensible effects or else be disbelieved."

This surely is going much too far. I am quite willing to agree that Prof. James is not far wrong in holding that "sensible vividness and pungency is the vital factor in reality when once the conflict between objects, and the connection of them together in the mind, has begun" ; although I should be inclined to say "*a* vital factor," instead of "*the* vital factor." On the other hand, it seems to me that he gives an impression of over-emphasizing the importance of sensational realness, and in a manner which is surely incompatible not only with the facts of experience, but also with his own theory. If I understand him, he would not disagree with the thesis here maintained, viz. that the quality of

[1] *Psychology*, ii. p. 299. Prof. James' use of the word reality here leads to some doubt as to the exact meaning he wishes to convey. Confer *op. cit.* p. 301. For a fuller discussion of this subject see Chapter xxv. of this work, Sec. 14 ff. It is to be noted in this connection that this distinction was instinctively grasped by the Greeks in the development of their language which so fully expressed delicate differences implicit in their mental life : for as Prof. B. L. Gildersleeve has said "to the Greek the world was first 'Wille' ; then 'Vorstellung.' The consciousness of the not-me comes from the putting forth of will. *The first object is the object created, the object effected, under which all other objects may be subsumed.*" This, I take it, means that the words earliest used by the Greeks in all reference to objects were those which as the language developed were especially employed in connection with conscious self-determination.

I quote above from a private letter which Prof. Gildersleeve has allowed me to use. Confer his *A Syntactician among the Psychologists. Journal of Philosophy, Psychology and Scientific Methods*, vol. ii. 4.

realness is a general quality which in some measure must attach to each and every presentation: and if this be true, and if it be also true, as we have held, that there is no ground for the notion that all of our conscious experience is a derivative of sensational experience (see Book I. Ch. v.) then it is impossible to hold that realness must be traced back to the recall of sensational experience.

Such views as we have above considered would never, in my opinion, have been maintained but for the atomistic preconception that our sensations are the stuff out of which our percepts and ideas are constructed, as it were. For as a matter of fact, what we observe is that while our sensations have a very marked measure of realness, for the reasons stated in the first paragraph of this section: nevertheless that our percepts, and the concepts which relate to objects in the outer world, display in a certain sense a still larger measure of realness, they maintaining their spatial stability often notwithstanding the observable instability of the sensations by which they are initiated.

That sensible vividness is not essential to realness is indeed upheld by reference to every day experience. When, for instance, we consider such a concept as that of the Deity we note certain relations in which it has a large measure of realness which it is very difficult to suppose can be traced back to sensational realness. A like "sense of realness" occurs also where common characteristics run through a vast series of experiences; as, for instance, when we appreciate the realness of the notion of causality.

As a matter of fact the form of realness connected with our sensation-perceptual presentations is of relatively little moment in the realm of reflection. It is usually passed over in every day life without being apprehended; it comes into prominence only where question is raised in connection with it, that is when we doubt; and then the noetic emphasis referred to is for the most part within the conceptual realm

developed in retrospect. This means that the apprehension of realness is usually bound up, not with our sensational experiences at all, nor with our perceptual experiences as directly given, but with these latter as considered ideally, and with other emphases of the ideal order.

Thus while on the one hand our most vivid apprehensions of realness are given in the consideration of our perceptual experiences, on the other hand our most important and varied apprehensions of realness are given in connection with the existence of emphases within purely conceptual psychic areas.

Sec. 11. (5) *In general the degree of realness of any special presentation is determined by its capacity, or lack of capacity, to assimilate with the noetic pattern that exists at the moment of its appearance.*

Beyond the quality of momentary stability connected indissolubly with the fact that it exists at all, each presentation has more or less of what we may call potential stability, which is dependent upon its capacity to harmonize with, to be assimilated by, the noetic pattern of the moment of its appearance. The noetic pattern of the moment may, for instance, relate to the conditions now existing on the surface of the earth, and the added presentation may refer to a condition in which all water would have disappeared, being replaced by vapor: this last presentation will then have an instability, an unrealness, in relation to the main field which is occupied with conceptions relating to existing terrestrial conditions. If, on the other hand, the noetic pattern of the moment happens to relate to the condition of the earth long ages ago, then the newly given notion of the disappearance of all water on the earth in the form of aqueous vapor may well have stability, may well appear as real.

A presentation may arise, and then apparently immediately disappear ; and this because it bears but slight relation to either the moment's field of definite presentations, or to the broad field of inattention. Its realness will thus be

ephemeral. The man engaged in deep thought may be affected by some unusual sound to which he could attach no meaning even were he to listen carefully to it: for the moment it may appear as a presentation in consciousness, but only to disappear in the immediately succeeding moment.

Or the presentation may gain a greater degree of realness in the fact that although it is unrelated to the emphatic parts of the noetic pattern of the moment, yet it is related to some minor undifferentiable parts of the field of inattention which are prepared to develop a marked noetic pattern. Thus the man engaged in thought may be disturbed momentarily by a knock on the door of his study. This sound bears no relation to his current of thought, and it fails of stability, or realness, so far as that field of thought is concerned. But if the knocking on the door might have the meaning " some visitor awaits you " ; if in other words it had relations with a possible and not unusual noetic pattern ; and if a visitor in whom the student takes an interest had been expected ; the student might not improbably have found his course of thought disturbed by a new thought series connected with the expected visit, although he might be entirely unable to recall the hearing of the knock, and might wonder at the disturbance of his thought. In that case the new presentation would have a measure of realness due to the readiness of the system to develop a new noetic pattern.

If what we have just said is true other experiences should be noted in which this realness obtains without any recognizable relation to the main presentative field whatever, but in connection with some influence which evidently arises within the field of inattention, within the Self. Of this origin of realness we shall find it necessary to speak in Chapter xv. ; and in order to avoid repetition we shall therefore defer discussion of this very important point.

V

Sec. 12. We thus appear to have found in Realness a third general quality of all presentations which involves the relation of more or less ; a quality which may therefore be grouped with Intensity and Manifoldness considered in the previous chapters. Intensity is a quality due to elemental psychic characteristics. Manifoldness is a quality determined by the systematization of psychic elements. Realness is a quality determined by the relation of similar presentations within successive noetic patterns. As elemental intensity as transformed, and as manifoldness, are both given in some measure in connection with all presentations as viewed in reflection ; so some measure of realness must appear in connection with each presentation, inasmuch as each presentation as viewed in reflection necessarily involves the revivals of, or secondary presentations related to, primary presentations that are past and gone.

Sec. 13. As we have already seen, realness is a quality involving relativity. Our sensations are usually determined by stimuli which are often powerful, and which are always more or less recurrent: and as a result we note that our sensations do not often seem unreal, for as we have seen above these conditions of forcefulness and persistence necessarily involve a high degree of realness. Nevertheless we are all ready to agree that some sensations are more real than others: the sensations due to the cutting of the skin, for instance, are much more real for us than the ordinary sensations of light or sound which usually pass unnoticed in comparison with the perceptive and thought trains which develop from, or in connection with, them.

Percepts which we experience when we observe " objects in an outer world " are notably real. But here again we easily see that even the common man accepts the relativity of the quality of realness in connection with them. When

the average man looks at the friend with whom he is conversing in the broad daylight, this friend is as real to the observer as anything can be. But let this same average man see this same friend approaching in the dim night, through a dense mist, before he has heard his voice, and he is very likely to find himself noting what is surely real as a mere experience (in fact often intensely real), but not real in the realm of realness of which we have been speaking above; for he finds the question arising whether this real experience is due to the approach of a real man, or is due to some shadow of an inanimate object upon the mist.[1]

And so it is with our experiences of "images." If I see a man clearly before me,—a real man I call him,—and then close my eyes, I have an image which is the real image of the man; but it is a presentation in a different realm of realness; for note how, if I question myself, certain parts of this new presentation fail of realness as was not the case when my eyes were open. Are his eyes dark blue or dark brown? Is his hair slightly gray or light brown? The realness of these parts of the presentation fail me. And if we consider the nature of such an object after lapse of time we find the characteristics about which realness cannot be asserted much increased in number.

The most prominent constituents of our emotional presentations are of a sensational nature, and we should therefore

[1] The failure of the characteristics of realness occasioned by dimness of perception gives men so easily a sense of unrealness that such dim perceptions form the well known basis of fraudulent spiritualistic appearances, so called: in such cases so great is the sense of the unrealness of the appearance of the "medium" as an object in the physical environment that many men and women fail to have the sense of this special form of realness in the outer world recalled, even if the man speak to them;—they persist in holding that a "spirit" spoke, and not a dimly perceived man. Yet even these dupes of the trickster will declare that they have seen a *real* spirit; it was no ordinarily embodied man they will say, but it was nothing less than a *real* thing in another phase of our experience.

expect to find conditions prevailing in the emotional field similar to those noted in relation to sensation. Still here we note, more distinctly than in the case of sensations, differences of realness: for although most of our emotional states are thought of as very real, nevertheless we often are doubtful, for instance, whether we really are in love, or whether we really are afraid, or surprised. The same is the case with our impulses and efforts, where the most prominent constituents are also of a sensational nature. The mass of our impulses, and the bulk of our efforts, are very real: still here too we find ourselves at times in doubt; we often question, for instance, whether our nobler impulses are as real as we would have our friends think them to be; and at times we are convinced that our efforts are but half hearted, and unreal.

It is in the realm of conception and thought however, where strong and reiterated stimuli are less common, that the varying grades of realness of special presentations become most evident to us. That our conceptions and thoughts in general shift their realness easily and rapidly is clear to all who watch the conceptual or thought trains in the course of a discussion in which the field of presentations is rapidly changed by the statement of diverse points of view. Most educated men who are without deep philosophical convictions will find the doctrine of the Absolute very real as they read Bradley or Royce, and will then find Pluralism just as real when they read James or Schiller.

Sec. 14. This view that realness is a general quality of presentations is surely implicit in much of the best of current psychological writing, and especially in that of Dr. James, although so far as I know realness is not explicitly spoken of by him *as a general quality* of presentations; and in fact I know of no psychologist except Miss Calkins[1] who has clearly expressed this view. I of course would not imply

[1] Confer her *Introduction to Psychology*.

that she would follow me in my development of this notion ; even as I would not have the reader think that I have gained my view from her statement ; for these chapters were written in draft long before her book as referred to was published. We are probably both indebted to the implicit defence of this doctrine by James in his various writings.

DIVISION II. GROUP II. GENERAL QUALITIES OF PRESENTATIONS INVOLVING A NORM, AND DEPARTURES FROM THIS NORM IN OPPOSITE DIRECTIONS

SUB-DIVISION I. GENERAL QUALITY DETERMINED IN NATURE BY CHARACTERISTICS OF PSYCHIC ELEMENTS

CHAPTER XI

THE ALGEDONIC QUALITY. PAIN AND PLEASURE

I. A

Sec. 1. In the chapters which have preceded this we have seen reason to conclude that there are certain general qualities, Intensity, Manifoldness, Realness, which in some measure attach to each noetic emphasis or presentation within consciousness; and we are led to ask whether introspection serves to bring to light any other psychic qualities of the same general nature.

In this search we naturally look for characteristic mental states of wide occurrence, and our first thought is of those most important states which we describe as our pleasures and pains. We at once find ourselves thrown off this track however by the very general acceptance by the common man of the notion that our pains are specific forms of sensation of the same type as touch, pressure, cold, taste, etc., and such sensations are surely not general qualities of all presentations.

We must not be over hasty however in the acceptance of this common sense judgment; for the very first careful examination of the facts leads us to question its validity. The same common man who classes pains with sensations also shows by his word that he finds pleasures and pains in some way indissolubly related, a fact which the most careful introspection verifies, and which all authorities accept without hesitation. Notwithstanding this, the common man does not usually think of classifying pleasures with the sensations; and careful introspection leads us at once to question the propriety of such a classification of pleasure, which would seem forced upon us if we are to view pains as sensations.

It seems possible then that we may have in pain not a form of the sensations, but a phase of a general quality which is usually emphatically noted in connection with sensations. We are thus led to study with renewed interest the nature of this indissolubly related pair, pain and pleasure; and it seems worth while to pass beyond the view of common sense to the consideration of the conceptions of those trained observers who have turned their attention to this subject.

Sec. 2. In my *Pain, Pleasure and Aesthetics*,[1] I have treated so fully of the subjects of this chapter that I shall content myself here with a relatively brief discussion of the points to

[1] In what follows there will be found no changes of conception, but a slight change of modes of expression; the principal one of which is the abandonment of the description of the algedonic quality as a three-phased quality, one of which phases is "indifference." As I held at the time of writing the book above mentioned, what we call "indifference" is a transition point at which both pleasure and pain disappear; but it is a fair criticism that the mode of description adopted in my earlier work is misleading; for if we describe this transitional situation as a phase of the algedonic quality we seem to imply that this indifference is an existence, as it were, below the threshold of consciousness. In what follows I therefore shall speak of the algedonic quality as a two-phased quality. I am indebted mainly to my friend, Prof. H. N. Gardiner, for the criticism that has led to this change.

be made; the reader who desires to study the full details of my arguments will find them, together with a critical examination of the theories suggested by others, in the work just mentioned.

A study of these theories which have been presented to account for the nature of pleasure and pain brings before us the most diverse of hypotheses upheld by powerful thinkers. We find it maintained by some, who are strongly influenced by the common sense view above referred to, or by a bias in favor of sensationalism, that pains are certainly sensations; and in consideration of the general acknowledgment of the close bond existing between pain and pleasure we find some of these theorists courageously holding that pleasure, as well as pain, must be of a sensational nature. We find however, upon careful examination, as we have seen in Appendix A, Division I. Sec. 3, that this view cannot be maintained.[1]

[1] Confer *Pain, Pleasure and Aesthetics*, pp. 15-32. Also an article published by the writer in the *Philosophical Review* for Nov. 1892 under the title *Pleasure-Pain and Sensation*. Prof. Stumpf, as noted in Appendix A, Division I., has lately reiterated this view without adequate consideration of the objections to it. Prof. Max Meyer (*Psychological Review*, xv. 4 and 5) has made a strong and quite sufficient argument in opposition to Stumpf's general position in this regard. He has also presented a new physiological theory which is succinctly stated as follows: "The correlate of pleasantness and unpleasantness is the increase or decrease of the intensity of a previously constant current if the increase or decrease is caused by a force acting at a point other than the point of sensory stimulation." This theory agrees with mine in the important particular that it holds the physical correlate of pleasantness and unpleasantness to be a general process. On the other hand it does not appear to me to be as satisfactory as my theory, for it fails to explain many facts which mine accounts for. It does not explain, for instance, why it is that a muscle action beginning with pleasure, if persisted in or increased, becomes painful? Why it is that mere rest of this muscle enables one to use it the next day with pleasure; but again if one persists in the activity pain ensues? Why it is that if this muscle activity is persisted in from day to day for a long period it finally loses its painfulness? Why it is that under persistent or increased stimulation a painful activity does not change into a pleasant one? Why it is, on the other hand, that

Again we find others of the highest standing as masters in psychology defending the hypothesis that pain and pleasure are emotions; or that the emotions are but associated "representations" of pleasures and of pains. This view also is found to involve formidable difficulties.[1]

We have further a set of writers who, dissatisfied with both of these theoretical positions, emphasize the importance of certain pleasant and unpleasant states which they describe as of an intellectual type, and which they justly claim to be at all events neither distinctly sensational nor distinctly emotional.

Arguments which may be brought forward in opposition to each of these broad classes of theories seem unanswerable, yet there appears to be force in the arguments in favor of each. This leads naturally to the suggestion that the masters who are thus opposed are probably each examining but a part of the algedonic field, and are theorizing with reference to that part which is most emphatic in their own experience. At all events it becomes clear in the course of this review of theories that pleasures and pains are given in connection with all sorts and kinds of specific presentations.

It further becomes clear that pleasures and pains vary in degree; and also that in many cases pleasures are displaced by pains, or pains displaced by pleasures, without a corresponding variation or displacement of the specific presentations in connection with which they appear. It also becomes clear that this displacement of pain by pleasure, or of

under the same conditions a pleasant activity normally changes into a painful one? Why it is that, given a pleasant activity, a decrease of the activity does not bring pain, but does bring a mere decrease of pleasure? Why it is that, given a painful activity, a decrease of the activity does not bring a greater pain but actually a decrease of pain? Why it is that, given a painful activity, increased activity does not bring pleasure instead of an increased pain?

[1] Confer *op. cit.* pp. 32 ff. and an article published by the writer in the *Psychological Review*, Jan. 1, 1895, under the title *Pleasure-Pain and Emotion.*

pleasure by pain, involves a transitional state where no pleasure or pain is noticeable, and which is generally spoken of as the state of "indifference."

We are led therefore to consider still more favorably the hypothesis that pleasure and pain are phases of a general psychic quality, and this view we may state in the form of an hypothesis as follows. *Pleasure-Pain is a general quality of all presentations, or noetic emphases. It is of a two-phased nature. In one phase or the other it qualifies all elementary psychic forms; so that, apart from the transitional "indifference," one of these phases must, ana given the proper conditions either of these phases may, be attached to any psychic element.*

When I thus speak of pleasure and pain as qualities of presentations I of course do not use the word quality to refer to such qualities as differentiate sensations, *e.g.* color, tone, etc., as certain of my critics seem to have supposed. As noted in my book above referred to (*e.g.* p. 46) I use the term quality in a broader sense much as we may employ the word to apply to intensity; in which sense it may be taken to be equivalent to the word, attribute, as employed by Titchener in discussing this subject.[1]

The evidence favorable to this view has been presented so fully in my *Pain, Pleasure and Aesthetics* that I need not repeat it here. Külpe, however, in his *Grundriss d. Psychologie* published about the same time as my book above referred to, and which did not come to my attention until after that book was printed, presented certain objections[2] to the qualitative theory, which gain importance because Stumpf[3] has lately quoted them as sufficing to warrant his failure to give any detailed consideration to this view; and in the fact that Titchener in his late *Psychology of Feeling and Attention*[4]

[1] Confer *The Psychology of Feeling and Attention*, pp. 8 and 84, etc.

[2] Translation by Titchener, *Outlines*, pp. 277 f.

[3] *Ueber Gefühlsempfindungen. Zeitschrift für Psychologie*, xliv. 1906, 1 ff.

[4] *Op. cit.* p. 84.

published fifteen years after Külpe wrote, follows Stumpf's lead.

The first and most significant of Külpe's objections occurred to me after my book was in press, and quite independently of his criticism; but it appeared to me satisfactorily explicable and not important enough to make the basis of any special written discussion.

In referring to this criticism we may well use Titchener's phraseology;[1] understanding that he uses the word "affection" in place of "feeling" to cover pleasure and pain. "Külpe points out," he says, "that affection cannot be an attribute of sensation of the same sort as the recognized attributes, because it has attributes of its own. Sensations show differences of intensity, quality, time, and (in some instances) space; affection shows differences of intensity, quality, and time."

Now when one speaks of the intensity or duration of a pain he is dealing with pain as viewed in reflection, and not with an experienced pain: and in such consideration we may use the phrase degree of pain, instead of the phrase intensity of pain, without any change of meaning. In exactly the same way we may consider intensity in reflection, and then may speak of its degrees.

If it is held that the ascription of degrees to pain proves that pain cannot be an attribute of a presentation, then it would seem to follow that the ascription of degrees to intensity proves that intensity cannot be an attribute of a presentation; which would of course be denied by my opponents.

And the same may be said of duration. In the mood of reflection we may speak of the duration of an intensity as well as of the duration of a pain; and if it is held that the ascription of duration to a pain proves that pain is not an attribute of presentations; then the ascription of duration to

[1] *Ueber Gefuhlsempfindungen. Zeitschrift fur Psychologie*, xliv. 1906, p. 84.

an intensity proves that intensity is not an attribute of presentations; which again would be denied.

Of Külpe's qualitative differences of pleasure and pain we need not speak at length, for his meaning is not clear to me, nor apparently to Titchener, who with his usual candor admits[1] "I myself have never observed a qualitative differentiation of pleasantness-unpleasantness, under experimental conditions." It may be well to repeat here that I use the word quality in a broader sense than that in which it is used in dealing with the distinction between specific sensations.

We may turn now to Külpe's second difficulty, which we may again put in Titchener's words.[2] It is "that the annihilation of an attribute of sensation carries with it the disappearance of the sensation; whereas a sensation may be non-affective, indifferent, and still be removed from disappearance." My conception of indifference as a transition point between pleasure and pain will appear clearer below, but with this conception in view it seems to me that Külpe's second "difficulty" loses all force. It is of course true that a sensation does not disappear because it becomes what we call "indifferent"; but that is because its pleasure has been reduced to a minimum, as when perhaps it is about to give place to pain; or because its pain has been reduced to a minimum, as when perhaps it is about to give place to pleasure. Where the pleasure is of high degree the pleasure cannot suddenly disappear, unless the presentation to which the pleasure attaches also disappears; and the same is true of pain of high degree. So it appears that there is no such sharp distinction between intensity and pleasure-pain in this direction as the Külpe-Titchener objection would imply.

[1] *Über Gefühlsempfindungen. Zeitschrift für Psychologie*, xliv. 1906, p. 161.
[2] *Op. cit.* p. 85.

B

Sec. 3. If it is true that Pleasure-Pain is such a two-phased general psychic quality as we have above suggested, then if the theory of neururgic and noetic correspondence is valid, it would appear that the phases of this quality must correspond with some special forms of neural activity which may appear in connection with the functioning of any part of the nervous system.

In turning our thought in this direction we are at once reminded of a theory which has been persistently suggested since the days of early Greek thought, and which relates pleasure to efficiency, and pain to inefficiency, in the activity of the individual who experiences the pleasure and pain: and this theory especially attracts us, who look for some neururgic characteristic corresponding to a hypothetical general quality of presentations, because efficiency and inefficiency are evidently not special capacities in specific parts of the organism, but are general characteristics of organic life. It would therefore seem worth our while to study this special theory with some care.

Sec. 4. When we turn to the examination of this theory as it was at first stated, relating pleasure to efficiency and pain to inefficiency of activity in the individual, we find that it displays inherent difficulties to which we can but briefly refer here. It is impossible for instance under the theory as thus stated to explain the existence of many pleasures which are evidently not connected with the individual's efficient activity, (*e.g.* the pleasures of rest from bodily activity,) and many pains which are evidently not related to the individual's organic inefficiency (*e.g.* the pains of restriction which seem to be connected with diminution of activity, rather than with inefficient activity).

Notwithstanding its weaknesses this theory has nevertheless been thought by many psychologists to have intrinsic

value, as is evidenced in the many attempts to so formulate it as to meet objection. In a modified form it has gained prominence in modern times because of its restatement in terms which aim to bring it into line with the theory of evolution; it being held that pleasure and pain are coincident not so much with efficient and inefficient actions in the individual as with actions beneficial and detrimental to the organism as a member of species. The theory even as thus restated is however found to be untenable when examined in detail. There are too many exceptions to this suggested law of correspondence to warrant its acceptance: too many pleasures in the individual are evidently detrimental to the race; too many pains in the individual are as evidently of racial advantage.

It seems possible however, as I have argued in the work above mentioned, to make another restatement of the theory which serves to meet the facts. If we hold, not that pleasure and pain relate respectively to the efficiency and inefficiency of the individual, or of the race, but that they relate respectively to the efficiency and inefficiency of the *neural elements* whose activity corresponds with the pleasant or painful presentations; then, as I have attempted to show, the theory appears to become thoroughly defensible. And if this statement is correct the observed general, but not invariable, correspondence of pleasure with actions of value to the whole organism or to its species, and of pain with actions of disadvantage to the whole organism or to its species, is to be looked for. For it is apparent that if any individual exists whose general organic constitution is such that it as a whole tends to enforce the persistence of inefficient (and painful), and to curtail efficient (and pleasant), elemental activities, this individual will be at a disadvantage in the struggle of life; while an individual will be at an advantage in this struggle whose organic constitution as a whole tends to encourage the persistence of efficient (and pleasant), and to

curtail inefficient (and painful), elemental activities. Hence *in the long run* we should expect to find what we do find, viz. a general correspondence between painful elemental activities and disadvantage to the individual, and to the species to which the individual belongs; and between pleasant elemental activities and advantage to the individual, and to his species: but also many exceptions to this general rule determined by the fact that the adjustment of elemental activities to meet the needs of the whole complex system of elements is at best only proximate.

Let us attempt to present briefly the theory as it would appear in this modified form.

C

Sec. 5. If we consider the nature of the activity of a neural element we see that its form will be altered by changes in the capacity of the element to react to a stimulus reaching it. The nervous element may be so well-nourished that it will react (1) very forcibly to a given stimulus, which (2) under normal conditions would involve a much less degree of activity. On the other hand (3) it may be so ill-nourished that it will act but feebly to the same stimulus. At any one moment, one of these three conditions must prevail, but only one of the three can prevail; and furthermore, if the proper relation of stimulus to nourishment is given, any one of the three may prevail. This involves a general characteristic in connection with the elemental neural action which involves a norm (case 2), and departures from this norm in one of two opposite directions (cases 1 and 3).

If stimuli reach a neural element when it is fully nourished it will react quickly and easily; if the stimuli reach it when it is poorly nourished it will evidently react with difficulty. It is easy to see then that there will be for each neural element at each special moment what we may call a norm of activity: and that when the degree of energy of the stimulus

reaching the element calls for activity greater than this norm, and provided there is no unusual supply of nutriment to meet this demand : or when the stimulus reaches the neural element so frequently that the element has not time between the moments of the recurrence of stimulation to absorb from its environment sufficient nutriment to bring it up to its normal nutritive condition ; then the reaction of the element will be subnormal in relation to the stimulus received.

It is equally clear that under conditions where a normal stimulus has not reached the neural element in normal rhythm, while the nutriment has been constantly absorbed, then the element will be more than normally nourished ; and when under such conditions a stimulus reaches it, it will be able to react hypernormally, using the surplus stored energy which has accumulated within it.

It thus appears that each neural element must be conceived to be able to react in three phases ; viz. sub-normally, normally, or hypernormally, under one and the same condition of stimulation ; the difference being due entirely to varying and variable conditions of its nutrition, *i.e.* to varying and variable relations existing between the stimulus and the amount of potential energy within the element which may be transformed into kinetic energy.

To put this in formal shape ; if R represents a normal reaction to a normal stimulus S, we have

α Stimulus S occasions reaction $R - x$,
β Stimulus S occasions reaction R,
γ Stimulus S occasions reaction $R + x$.

In case α we have what we may call an inefficient reaction. In case β we have what we may call an equivalent reaction. In case γ we have an especially efficient reaction.

This characteristic of elemental nervous activity would be expected to appear in the complex neururgic system which corresponds with consciousness as we experience it, and

we are therefore led to look for a general quality of all presentations corresponding with the neururgic relations above described, which involves a norm and departures in opposite directions from this norm. And this quality would be of such a nature; 1st that, apart from the moment of transition, one of its two forms must prevail in connection with each psychic *element* as given within the complex presentation; 2nd that no more than one of these forms can prevail at the same time in connection with any given *element*; and 3rd that, given the proper conditions, either one of the forms may prevail in connection with a given *element*.

Sec. 6. It is evident that if the hypothesis of a thoroughgoing noetic and neururgic correspondence is true we must expect to realize some difference of qualities in the psychic coincident of the activity of the neural element corresponding with the above mentioned different relations of the stimulus received and the capacity to react. These differences I conceive to be the basis of what we recognize in our conscious life as Pain, Indifference and Pleasure. Pain (α) corresponding to subnormal capacity for reaction in the neural element; Indifference (β), where both phases of the algedonic quality are absent, corresponding to normal capacity; Pleasure (γ) corresponding to hypernormal capacity.

Sec. 7. The general ground for maintaining this view lies in the fact that the characteristics which we have above attributed to the neururgic quality determined by the relation of activity to capacity to react seem to be discoverable in relation to pleasure-pain phenomena.

In the first place, as we have already seen, it is generally agreed that pain is in some way related to inefficiency, and pleasure to efficiency, of activity. Again what we call indifference appears as a norm in relation to both pleasure and pain, which themselves appear as departures

from this norm, and in diametrically opposite directions. Again each presentation must involve either pain, or indifference or pleasure; and, apart from complex states which are evidently in no sense elemental, no specific presentation can be qualified by more than one of the pleasure-pain phases in any one moment. Furthermore we have many experiences which tell us that what are practically the same presentations may be experienced under diverse conditions either as painful, or as indifferent, or as pleasant.

Sec. 8. The position here taken may be stated in still another way. If it be held, as it generally is, that conscious experience is coincident with neural discharge; and if we are compelled to hold that a special qualification of the neural process will be determined by the relation between the stimulus received and the nutritive condition of the neural element which acts in the discharge; then we are surely led to look for some corresponding special qualification in the coincident psychic experience. This seems to me to be found in the pleasure-pain quality. If it is not found in this quality, then it is but just; either to demand of physiologists that they explain away the necessity of conceiving the diverse qualifications of discharge determined by the diversities of relation between the stimulus and the nutritive condition of the neural organ; or else to demand of the psychologists that they give us some inkling of the differentiation of psychic experience, other than pleasure-pain, which does correspond with this differentiation of the neural discharge.

Sec. 9. It is easy to see that if simple neural elements exist in an environment from which nourishment can be readily absorbed, the condition β referred to in Sec. 5 will be normal: and condition α always liable to occur: while condition γ can occur only under special conditions. In other words under ordinary conditions the neural

element will be prepared to react to normal stimuli; if the stimulus is hypernormal it will be unprepared usually to react to it fully: only under special conditions (*e.g.* where a stimulus is normally regularly recurrent, and absorption constant, and where for some reason this normal stimulus has not been received,) will the nutritive condition of the element be such that it will react more fully than is demanded by the energy of the stimulus. Thus the psychic coincident of the neural elemental activity will under the hypothesis be at times indifferent, and often painful; and only under special conditions pleasant. It is apparent then that the absorption of nutriment and the capacity for such absorption is the important consideration in the determination of the form of neural activity which is coincident with the qualities of pain and pleasure in the psychic elements.

Sec. 10. When we turn to the study of consciousness as we experience it, and consider it as a noetic *system* coincident with the activity of a neural *system*, we note some important modifications of the simple relations thus far presented: for thus far we have been considering psychic and neural elements in themselves.

In the neural system of man the nourishment of the parts of the system is brought to them by the blood supply. This supply is variable under different conditions, and is governed by a special mechanism so that demands for activity due to the reception of stimuli are followed, after longer or shorter intervals, by increased supply of nutriment brought from afar to supply the waste. In such a complex system the emphatic activity stimulated in any part which is just able to react equivalently to the stimulus will under our view have as its psychic coincident an "indifferent" presentation which involves neither pain nor pleasure, and when the stimulus demands activity which cannot appear we shall have coincidently a presentation of painful quality. But

note that in this latter case the mechanism which governs the nutriment of the system will press forward a supply to meet this demand; and if the demand cease this supply thus started towards the just-active element will, by what I have elsewhere called a process of "nutritive momentum," be carried to the just-active element, which will be more than normally nourished,—will gain a surplus store of potential energy,—so that if a stimulus again reaches it without too great delay the reaction will be more vigorous than is normally called for by the stimulus received, and the psychic coincident will be a presentation of pleasant phase.

It thus appears that *in general*, in the growth of neural systems, special parts will acquire capacity to store surplus force only as the result of previous excessive stimulation; and that correspondingly on the psychic side the capacity to experience pleasure in connection with any presentation will depend upon the previous experience of a pain in connection with the antecedent of this presentation. It is because of this hypothetical primacy of pain that it seems proper to place the word pain before the word pleasure in a description of the general quality we are considering, and for this reason I named my first book Pain, Pleasure, and Aesthetics, and gave to the Science of Pain and Pleasure the name Algedonics (ἄλγος-ἡδονή).[1] In the very first

[1] It is to be noted here, however, that there are many cases where this general primacy of pain will not hold. In a complex neural system, like that of man, one part may demand extra nourishment; and this nourishment, not being called for when it reaches the organ for which it is intended, may be distributed in connected parts which will be thus placed in condition to act with pleasant coincidents, without a previous excessive demand with painful coincident. Again; inasmuch as we inherit from our ancestors a tendency to develop in certain special directions; so the capacity to store surplus force in any special neural part may be due to this inheritance, and may not be due to any excessive activity with painful coincidents within our own experience, although excessive activity accompanied by pain in the experience of our ancestors may have originally had to do with the capacity to store surplus force which developes with our growth.

article written by me on this subject for *Mind*, I used the term pleasure-pain; and this phrase, both because it is more euphonious than pain-pleasure, and because it has become current, I occasionally employ.

Sec. 11. In a previous chapter we noted that if intensity is an elemental quality, then as we appreciate it as a characteristic of a system of psychic elements it can appear only as transformed: and under our view the same must be true of the algedonic quality. It becomes evident therefore that it will be impossible to raise our statement above the position of a highly probable hypothesis, for the simple reason that we are unable on the one hand to isolate neural elements in our own bodies, and to govern accurately the relations of stimulus to nutrition; or on the other hand to experience introspectively the isolated psychic states corresponding with the hypothetical elemental neural activities. Nevertheless it will become apparent, I think, in the discussion to follow that this hypothesis is warranted by our experience of complex states, in which pain and pleasure appear as phases of a general quality of psychic phenomena, which evidently are not determined by the complexity of consciousness as we experience it, but by elemental differences determined in turn by conditions which seem without doubt to be coincident with varying relations between stimulation and organic nutrition.

Sec. 12. It is also to be noted here, as we have noted in connection with each of the general qualities in Group I., that when pleasure, or pain, are recognized as such, they are appreciated in reflection in themselves as presentations of specific forms. The recognition of the algedonic phase of any given presentation involves the appearance of a special "sense of relation" which is as definite a presentation in reflection as is any other of those senses of relation of which we have spoken elsewhere at length. When we appreciate a degree of pleasure, or a degree of pain, it is

because one of two special senses of relation is given at the moment.

Sec. 13. Such is the hypothesis in outline: in what follows we shall consider certain arguments in favor of this hypothesis. Before doing so however I wish to emphasize the fact that the important point to be verified is the purely psychological theory. In my view the neururgic hypothesis which I have presented is very probably a valid one: but even if it were shown to be utterly groundless this would not take from the fact that pain and pleasure are phases of a general quality of all elements of consciousness, either of which under the proper conditions may attach to each psychic element; and, apart from the transitional situation of indifference, one of which must thus attach to each element. Even if the neururgic theory here upheld is found to be inadequate, some new form of neururgic theory must be looked for which will be compatible with the general nature of pleasure-pain as above described, and which is clearly given in our experience.

II. A

Sec. 14. Let us now examine the introspective evidence bearing upon the psychological theory presented above: in connection with this examination, noting incidentally the correspondence of this psychological theory with the neururgic theory which I have developed more fully in my book above mentioned.

Sec. 15*a*. It will serve our purpose best to begin with the consideration of the transitional situation where both pain and pleasure disappear, and which we call indifference. If our neururgic theory is warranted it is clear that any neural part may have capacity exactly and only just equalized[1] to

[1] I use the word equalized here and elsewhere to indicate the very evident fact that in many cases the normal situation involves a greater

the demand involved in the stimulus that comes to it. Evidently this exact equivalence will probably seldom if ever be actually reached: nevertheless, on the other hand, there will often be a near approach to this equivalence; and with organs habitually reacting to what seem constant stimuli, or to those of regular and rapidly recurring rhythm, we should expect to find a wide region of activity very close to this theoretical equivalence, and vibrating as it were very slightly on either side of it. Practically such a condition is indeed normal where the stimulation to activity is constant, as in the case of the activities of such neural parts as those relating to breathing and to the circulation of the blood.

Sec. 15*b*. The state of indifference is in our view the psychic correspondent of this neururgic equivalence. So far as I can judge from introspection, it is merely a passing stage which is neither noticeably pleasant nor noticeably painful. Although under our theory the existence of indifference in connection with any given presentation must always be possible, strictly speaking such total indifference is seldom noted. On the other hand a condition varying so slightly either towards pain or towards pleasure as to be practically indifferent is very often reached, and is in fact normal for those presentations that are coincident with wide systemic activities. It is true that there are certain mental experiences which never appear quite indifferent to us, but this as we shall presently see is because in such cases the conditions of indifference do not in fact arise. This however does not take from the fact that these conditions might possibly arise: and if they did so arise then, under this view, these experiences would be called indifferent. What we call indifference then is mere absence of either pleasure or pain.

display of energy in the reaction than is given in the stimulus. The sense organs are thus centres of explosion as it were. But the force of these explosions themselves may vary from subnormal through the normal to the hypernormal.

As we shall see in the next chapter it has its counterpart in presentness within the time flow.

Sec. 16*a*. Turning to the consideration of pain ; we note that under our theory we should expect to find that in general, if the proper conditions are given, any presentation may appear in painful phase. For it is clear that, even if capacity for the storage of surplus energy exists, this store of surplus energy may always be drawn off by excessive or prolonged activity ; and there can be no case therefore in which it is impossible to conceive the conditions existing where the amount of energy demanded by the stimulus in reaction will be greater than the amount actually appearing in the reaction.

Sec. 16*b*. In psychological terms this would read, there is no case in which a presentation will not appear in painful phase if its intensity becomes sufficiently great, or if the presentation persists long enough. There may be cases, however, where the presentation always disappears before it can reach the painful phase.

I think all must agree that the persistence of a presentation that was not originally painful finally results in the attachment of pain to the maintained presentation. In our sensational experience it is very common to observe pleasant presentations which if maintained with sufficient intensity lose their pleasure and then become disagreeable. It is true that excessive stimulation is so dangerous to certain of the sense terminals that nature has provided them with protective organs which are so usually effective in preventing excessive stimulation that instances of it are noted with difficulty : but such cases do not appear to be adverse to the position here maintained. I have discussed this matter so fully in my book above referred to that it does not seem necessary to say more than that I know of no sensational experience which, even if pleasant normally, cannot be experienced disagreeably if intensity be increased or

prolonged.[1] What is more, there are many sensations which as a rule are very nearly indifferent and scarcely traceable in pleasant phase, which may appear painful in the extreme, under serious over-exercise. The conscious states connected with the intestinal activities are usually thus indifferent until some time when subject to excessive stimulation they give excruciating pain.

Turning to the emotions we may take the case of Joy as typical. Joy is clearly an emotion, and it also is justly looked upon as a typical state of pleasure-getting. But notwithstanding this usual connection with pleasure, excess of joy brings an exhaustive pain from which often the name joy may be altogether detached, although "a joy which is almost pain" is a recognized state.

Looking beyond emotion, we see that any content of thought, if steadily presented with intensity, becomes painful. As Mrs. Browning in one of her sonnets says—

> Oh, entertain (cried Reason as she woke)
> Your best and gladdest thoughts but long enough
> And they will all prove sad enough to sting.

Perhaps our poetess may be thought to refer not to the thoughts themselves but to states collateral with them. And in fact we tend to turn so quickly from thoughts as soon as they begin to lose their delight that we find it necessary to step beyond the normal for clear verification in this particular. When we do so we note the severe pain connected with those

[1] Mr. Spencer has indeed stated that there are certain sensations, such as sweetness, which can never be disagreeable, however intense they are. It is true that certain tastes which are usually pleasant are so identified in name with the pleasure quality that the ordinary man fails to use the same term in describing the painful phase of the same presentation: and this is what happens in relation to sweetness. Mr. Spencer's illustration however is not a happy one: for sweetness if intense is exceedingly disagreeable to some people within my experience; and even I, who am ordinarily fond of sweets, find no difficulty in obtaining disagreeableness from an excessive stimulus in this direction.

morbid cases of *idées fixes* which seem to present the typical disease of attention. Beyond this, in cases of extreme weakness any thought is found to be painful, as is also true when we have long been mentally active, and are "too tired to think," as we say.

Sec. 17*a*. Turning now to the consideration of pleasure we note that under our theory we should expect to find that in general, if the proper conditions are given, any presentation may appear in its pleasant phase. For it is clear that even where there is an approach to the equivalence between stimulation and blood supply spoken of above when we were considering indifference, the inconstancy of environmental conditions makes it probable that for the great mass of organs there will be sufficient inconstancy of stimulus to bring about *some* capacity for storage of surplus force, however small; and hence capacity for the use of this surplus stored force, even though this use may be possible for a very short time only. This storage-capacity will vary in amount somewhat in proportion to the variability of the stimulus and to the importance of vigorous action whenever the stimulus occurs.

Sec. 17*b*. In psychological terms this may be stated as follows. Any presentation may carry pleasure with it under proper conditions, although the pleasure may be of very low degree and of very short duration. The capacity for pleasure-getting in connection with any special presentation will depend upon the variability of the appearance of the presentation in attention, and upon its importance in the life of the individual.

It seems to me that almost any sensation may be noted in pleasant phase if we will but watch for the pleasure. And if some sensations appear to be disagreeable even at their lowest intensity it is possible to hold that this is due to the fact that we cannot, with available means of stimulation, arouse the sensation at all at a sufficiently low intensity to observe its

pleasant phase, attention being retained. For instance, the sensations which are usually thought of as always painful, and never pleasant, *e.g.* cutting, laceration, etc., are accompanied by conditions which in all cases involve excessive stimulation. Neuralgic pains are so excessive that the presentations to which they are attached themselves lose all prominence in attention and we have in the focus of attention only the pain "sense of relation," and do not recognize the pleasant phase of the same, if it occurs, as in any way related to our state of previous agony.

Turning to the emotions: all will agree I think that fear is generally looked upon as a most painful state: it can indeed with difficulty be separated from spasmodic violent reactions which are necessarily painful. If however we pay close attention to the muscular components of fear, which are the psychic elements that specially differentiate the state from all others, I think it not impossible to trace it in pleasurable phase. Let one, walking in the darkness and hearing footsteps behind him, deliberately quicken his pace, as I have often done as an experiment, and he will catch the beginnings of the marked components of fear, but not unpleasantly. There is a well-known fascination which leads boys and men to go as near to dangers as they dare, and then flee from them: fascination implies pleasure-getting n connection with the activities involved, and in my view :hese pleasures are characteristics of presentations which in :heir painful phase make the body of the emotion of fear.

A large proportion of our thinking appears to me to be nildly pleasant. Where it is painful we divert our thoughts —that is, we restrict the appearance of a given presentation which has become too constant,—so that when it arises naturally after a time of rest the pain is gone, and we grasp :he thought as we do only when we are gainers of pleasure.

Sec. 18. If it is true that pleasure and pain are characterstics of psychic *elements* as these appear in the psychic system

which we speak of as consciousness; then clearly each minor presentation within the whole noetic pattern that is not indifferent must have its special pleasure-pain quality; and it is equally evident that the phase of this quality may differ in connection with the several minor presentations in a complex state. It thus appears that we ought at times to experience mixed states of pleasure and of pain: and this expectation is certainly realized. I may have a painful toothache, while at the same moment I experience a very pleasant taste of sugar which has started the throb of pain by action upon an irritated tooth nerve. We may have what are commonly called "mixed feelings": Juliet's plaintive expression that "parting is a sweet sorrow" describes such a state where marked pain accompanies one minor presentation, and marked pleasure another, in the whole complex presentation of a single moment.

We should expect also to find cases where the psychic elements which are not within the field of attention would display minor degrees of either pleasure or pain, which massed together as it were would give a sense of well being or ill being. Such states are familiar to us all. This psychic mass as I shall attempt to show in a future chapter is what the ordinary man speaks of as "feeling"; and it is natural therefore that we should come to view these cases, where broad but not vivid pleasures and pains well up from the depths of consciousness, as developments of this realm of "feeling," as we certainly most commonly do.

And at this point it may be well to call attention to the fact that I break away from the habit of many of our modern psychologists, and avoid altogether the use of the word "feeling" in connection with the phenomena of pleasure-pain. It is not unusual, as the reader will recall, to find pleasure-pain referred to as a form of, if not the basis of, this so called "feeling." That there is a close bond between this so called "feeling" and pleasure-pain

phenomena is of course true, and an attempt to explain the nature of this bond more fully will be made when the nature of "feeling" is discussed. Here it is merely necessary to state that, whatever this relation may be, pleasure and pain are not to be identified with this "feeling" in any sense; nor are various forms of this "feeling" to be considered as derivatives of pleasure and pain.

B

Sec. 19. The point made in the last section; viz. that we may have diverse pleasure-pain phases in one and the same total complex presentation, is of importance in relation to certain pleasure-pain experiences which we shall now consider.

All of the forms of pleasure and pain thus far studied have been those which are characteristic of presentations which exist as spontaneous or enforced objects of attention: all have been referred to what is often spoken of as an emphatic degree of psychic activity, for it is the consideration of pleasures and pains connected with the activities of life that have led to the theoretical position thus far taken.

But there are certain prominent forms of both pain and pleasure which are connected in our minds with presentations the development of which in attention is restricted; forms of pain and pleasure which in other words seem to be due to cessation of what is spoken of as psychic activity. What I wish to note here is that in such cases the pains and pleasures are not connected with the prominent presentation which is restricted in its development in attention, but to other less emphatic partial presentations within the whole complex of the moment.

Sec. 20. Let us first consider the pains of restriction. In the first place we have the well recognized pains due to thwartings, to disappointments, of one form or another. In all such cases the painfulness is clearly attached to other

partial presentations than that emphatic partial presentation the development of which appears to be inhibited. The pains in such cases are of the massive type, summations of minor pains which are well distributed, and not infrequently localized as distributed in "feelings" of malaise and uneasiness referred to the broad somatic system.

In the second place we have the pains of craving. That the pains are here also of the broad, massive, summational type is clear: and here too they seem without question to be attached to other partial presentations than that emphatic presentation the development of which appears to be inhibited. In the realm of sensation this certainly requires no illustration. In the realm of emotional and intellectual activity it is as clearly exemplified, if we acknowledge as I hold that craving and desire are closely allied. The thinker also whose habit of attention to his thought-sequences is interrupted finds himself experiencing very much the same indefinite uneasiness which the active man feels after prolonged muscular restraint.

The physical conditions which accompany cravings and desires involve rest in the organic parts the natural action of which is inhibited, and therefore the storage in these parts of surplus energy which is at once used up (with accompanying pleasure) when the inhibition is removed. Such being the case we are not surprised to find that when a presentation has thus been restricted painfully, its rise into attention is always pleasant in some degree, as it corresponds with an efficient nervous activity; and the pleasure be it noted is then more or less clearly involved with the presentation which is no longer inhibited, as was not the case with the antecedent pain of restriction; and this pleasure is usually proportionate to the degree of the anterior widely diffused pains of craving.

That is to say, all satisfactions of cravings and desires are in themselves pleasant, and the vividness of the pleasure

gained is in general proportionate to the strength of the cravings or desire which has preceded. I think there will be no question raised as to the validity of this law in its widest range. The common proverb "hunger is the best sauce" is of more than sensational significance.

Sec. 21. We may now turn to those forms of pleasure which are connected in our minds with presentations the development of which in attention is restricted. I refer here of course to the pleasures of rest after arduous work, of relief from painful strain of one kind or another. Here it seems very clear again that the pleasure is of a broad, massive, summational type; and that it is not attached to the presentation which has been painfully developed in attention: it is the very waning or loss of this presentation within the field of attention which brings the pleasure in other less emphatic minor presentations which are broadly distributed, so to speak, in the noetic pattern of the moment.

Sec. 22. The relation of the phases of the algedonic quality to the efficiency of the unemphasized psychic system is marked and is distinctly corroborative of the theory here presented. It will be more convenient to consider this subject in a later chapter where we treat of the relation of the algedonic quality to attention.

SUB-DIVISION II. GENERAL QUALITY DETERMINED IN NATURE BY THE COMPLEXITY OF PRESENTATIONS

CHAPTER XII

THE TIME QUALITY. PASTNESS-PRESENTNESS-FUTURENESS

I

Sec. 1. In the course of our study of the nature of the general qualities of Group 1. we noted that Intensity would inhere in the psychic element if such could be isolated; while Manifoldness and Realness are determined not by the nature of the hypothetical psychic element, but by the complex nature of presentations. In the previous chapter we have considered the Algedonic Quality, a general quality appearing in two phases,—pain and pleasure,—which we discover in our complex presentations as experienced, but which we have concluded would inhere in the psychic element if such could be isolated; and it is natural now to ask whether there is any general quality of all presentations of a similar nature which would not be given but for the complexity of presentations.

When we turn our thought in this direction we cannot but be struck by the fact that our experiences in relation to time have a very marked similarity in many respects with our experiences of the algedonic quality. As with the algedonic quality, the time quality, if we may so speak, (*a*) displays two marked phases, past time, and future time;

which appear as departures in opposite directions from an elusive state which we call present time. We note also (β) that either pastness or presentness or futureness seems necessarily attached to each presentation ; and that any one of them seems to be attachable to any given presentation if the proper conditions are given. We note also (γ) that each of the three seems to be exclusive of the other two in relation to any special presentation ; and that (δ) past time, and future time, appear as contradictory opposites, while the third appears as a norm of transition, as it were, from which the other two seem to depart in opposite directions. Let us consider for a moment somewhat more in detail the facts which suggest this likeness of form between algedonic and time phases.

Sec. 2. (α) In the first place it seems fairly clear that each presentation within consciousness, when considered from a special point of view, is discovered to be describable either as relating to the past, or to the present, or to the future. It is true of course that we often experience presentations without appreciating their time relations, just as we experience presentations without appreciating their intensity, or their algedonic quality ; but no presentation seems to arise without displaying characteristics which may lead to the appreciation of some time phase, so that it is then found to display either what we may speak of as presentness, or else pastness, or else futureness.

(β) In the second place we note many cases where what we call the same presentation displays the different time phases under different conditions : *e.g.* this moment's thought "a game of golf" may have pastness if I played yesterday, or presentness if I am in the midst of the game, or futureness if I am on my way to the golf course. Furthermore there may be a rapid shifting from one time phase to another without other noticeable change in the presentation : when walking to the golf course the thought "game of

golf" may be placed now in the past, and immediately afterwards in the future.

Again there are cases where, provided we recognize multiple emphases within the same complex presentation, we seem to note all of the time phases together; one being given emphatically, the others dimly: consciousness thus appears as involving a present, together with what Prof. James calls "backward and forward fringes." This would indicate that as each presentation is highly complex, so the parts of the complex may appear in different time phases at one and the same moment; very much as we note summational states of mixed pleasure and pain.

(γ) But evidently even where this occurs it appears that prominence of one time phase in relation to a given presentation excludes the prominence of either of the other two time phases at the same moment. The same idea cannot be thought of as distinctly present, and at the same moment either as past or future; nor as distinctly past, and at the same moment as present or future; nor as distinctly future, and at the same moment as present or past.

(δ) It is so clear that past time and future time are appreciated as contradictory opposites, and that present time is as it were a *norm* in relation to which the past and future are estimated, that no further comment in relation to this point is necessary here.

This view serves to strengthen our first suggestion; and evidently makes it worth while to look into the matter more carefully.

II

Sec. 3. At the very start it may be well to say a word to forestall criticism from some reader to whom it may occur that in any discussion of the nature of the time quality we must find ourselves assuming a time series in the objective world, and events in time; and that we will thus be found

to base our explanations upon data which involve the apprehension of time itself. For we have reason to contend that as psychologists we are fully warranted in this procedure.

We assume successive events exactly as we assume the existence of objects in the outer world. All of common speech, and all of scientific expression, involve the assumption of the existence of objects in the outer world, and involve in like manner the assumption of what we call successions of changes in this outer world of objects. The difficulties referred to are of a metaphysical nature with which the psychologist as such does not directly concern himself. In the words of Dr. James Ward[1] we "have not to ask how time itself comes to be, but assuming it to be, we ask how the individual comes to know it." Assuming the existence of successive moments of time in the life of a complex neural system, and in that of a coincident consciousness which is a complex psychic system, it is our object to enquire into the nature of the quality given in any special moment,—any "now" of this psychic existence,—by the fact that this special moment was preceded by, and will be followed by, other special moments,—by other "nows."

Sec. 4. But although we might thus waive this difficulty we do not find it altogether necessary to do so. For if we assume the time quality to be a general quality of presentations, then it is true here, as we have remarked in reference to each of the general qualities already described, that when

[1] *Encyclopedia Britannica* Article, *Psychology*, p. 64. Confer also Dr. Stout in his *Manual of Psychology*, p. 384, where he says "Without ideal representation there could be no such thing as the definite apprehension of a time series, having a distinguishable beginning and end, connected by a train of intermediate events, each having its own position in the series determined by its relations to other events which come before and after it. For perceptual consciousness it is evident that time cannot exist in this form. On the other hand we find in perceptual consciousness those primary experiences on which our developed apprehension of time is ultimately based."

timeness in any of its phases is recognized as such it is appreciated in reflection in itself as a presentation of a specific form. The recognition of the time phase of any given presentation involves the appearance of a special wave form in our symbolic noetic pattern; it involves a special "sense of relation" which is as definite a presentation in consciousness as is any other of the senses of relation. When we appreciate the time phase of a given presentation it is because its special "sense of relation" is given at the moment.

When we assume the existence of successions of presentations we are really experiencing in the "now" a given complex presentation in which we appreciate a number of minor presentations together with a recognition of a relation of succession between them: and evidently we are then dealing with what is a very different thing from a description of the successive presentations themselves.[1] If we refer to three specific presentations say, 1, 2 and 3; we grasp them as a series of any kind in a complex presentation of multiple emphasis which may be symbolized thus:

$$1, \text{ plus } 2, \text{ plus } 3, \text{ plus } \left\{ \begin{array}{l} \text{The "sense of relation" which} \\ \text{we describe as the relation} \\ \text{peculiar to the series.} \end{array} \right.$$

So of three presentations of successive moments, $\overset{\alpha}{P}$, $\overset{\beta}{P}$, $\overset{\gamma}{P}$; we grasp them as a time series in a complex presentation

[1] For clear statements of this distinction, confer Stout, *Manual of Psychology*, p. 385, and Royce, *World and the Individual*, ii. pp. 115 ff. As Dr. Jas. Ward says (*Encyclopedia Britannica* Article, p. 66) "On the whole we may conclude that our concrete time experiences are due to simultaneous representations of a series of definite presentations both accompanied and separated by more or fewer indefinite presentations more or less confused; that, further, the definite presentations have certain marks or temporal signs due to the movement of attention; that the rate of these movements or accommodations is approximately constant, and that each movement itself is primarily experienced as an intensity."

of multiple emphasis which may be symbolized as follows :

$\overset{\alpha}{p}$, plus $\overset{\beta}{p}$, plus $\overset{\gamma}{p}$, plus { The "sense of relation" which we describe as the relation involving pastness, presentness, or futureness as the case may be.

It would appear then that the pastness of a given presentation is appreciated because of the emphasis of a certain specific sense of relation ; and that presentness, and futureness, are appreciated because of the emphasis of certain other but closely related senses of relation : and we thus see that in this study we are dealing altogether with an analysis of what we assume may be certain aspects of all forms of presentation.

III

Sec. 5. In beginning the study of the hypothesis before us we must note certain points of significance which require full explanation if it is true that the appreciation of time is due to the existence of a general quality which is attached, if we may so speak, in one phase or another to each presentation.

It will be necessary in the first place to account for the fact briefly referred to above, that while from one point of view each presentation in a given moment is appreciated as in a sense qualified by one, and only one, of what we may call the three time phases ; nevertheless that from another point of view every presentation which is distinctly recognized as present,—as qualified by presentness,—has attached to it also something of both pastness and of futureness in what Dr. James calls the "backward and forward fringes."[1] It is this fact that leads us to describe consciousness as a whole as a stream, in part ever flowing

[1] Confer W. James, *Psychology*, vol. i. ch. ix.

toward us, in part being with us, in part ever flowing from us: a stream which appears constantly to leap as does a torrent over a brink, from which it approaches and passes us by, like a river across a broad plain until lost in the vague horizon mists.

Sec. 6. We find another point of significance in the fact that in speaking of consciousness thus as a stream we are using spatial terms. And when we think of it we find that we are in the habit of thus employing spatial terms constantly in our references to time: the past is felt to be fittingly described as that in our experience which is going from us; the future as that in our experience which is coming to us; the present as that in our experience which is here with us. This use of terms would surely seem to indicate that the form of presentations given whenever we recognize pastness, is given with especial emphasis in connection with our perception of objects in the outer world from which we are being separated; that the form given whenever we recognize futureness, is given with especial emphasis in connection with our perception of objects in the outer world to which we are approaching, or which are approaching us; and that the form given whenever we recognize presentness, is one which is emphasized when objects in the outer world which attract our notice are in a stationary relation to us. The significance of this point will appear as we proceed.

Sec. 7. We may note here also another significant point; viz. that this time stream moves always in one direction. As we have seen above, in considering in reflection the time quality as a whole we are dealing with the appreciation of the characteristics of a series of presentations in one complex presentation. Now spatial series, for instance, when thus studied, may be considered equally well from right to left or from left to right, up and down or down and up. But such is not the case with the time series. And evidently as Prof. Royce says "this direction of the stream of time forms

one of its most notable characteristics." Even when we consider reversible spatial series, through them all appear the temporal characteristics of the stream of presentations itself which is always in our direction and irreversible. When we contemplate spatial or similar series we appreciate no sense of aid or opposition in them due to the existence of a steady current, as it were : but when we contemplate the time series we always do appreciate the influence of a current moving inevitably in one direction, with which we move easily, against which we must struggle if we are to maintain our position.

Sec. 8. Finally we are led to note another point which we will find to have especial significance, viz. that the several time phases, inclusive of what we call the present, always appear as related to what we in reflection perceive to be really not of the present, but of the just past. Even our every day "present" is really a secondary presentation or revival ; it is a state of reflection, in a given "now," upon what is a just-gone ; and this fact has led Mr. E. R. Clay to describe what we in common language call the present, as a "specious present." In what follows when I speak of presentness, or of the present, I refer to this form discovered in revivals, *i.e.* to what we would call in Clay's phraseology "specious presentness" and the "specious present" ; and do not refer to the "now" of experience in which this is appreciated.

Sec. 9. The fact referred to in Sec. 7, viz. that the time series moves in one direction only, and that this direction of the flow is irreversible, would seem to indicate that what we speak of as the three time phases are due to modifications of one general characteristic of successive presentations as these are appreciated in a complex presentation of reflection. The fact referred to in Sec. 8, viz. that all presentations upon close inspection appear to be relegated to the past, surely means that the pastness sense of relation is more pervasive

than the presentness or futureness senses of relation: and this would seem to imply that in pastness we have the general characteristic of successive presentations just referred to; and that in considering the time quality we are dealing with a general typical form of all presentations which is markedly emphasized in those cases in which distinct pastness is recognized; which is not thus emphasized in those cases in which presentness (or "specious presentness") is recognized; and which is considerably modified in those cases in which futureness is recognized. For such a typical form of all presentations, which is thus modified when the time phases are definitely appreciated, we may well make search.

IV

Sec. 10. It is evident from what we have just said that we are likely to be repaid by a careful examination of the characteristic of pastness which is evidently a more pervasive form of presentations than either presentness or futureness.

When we study pastness with care we note the fact that it is always connected with a reduction of presentative complexity. As Herbert Nichols well says; "In order to perceive Past, some sensation or image must cease; whenever any such ceases, we perceive Past. The ceasing of the perception is the perception of Past; did no perception ever cease we should never perceive or know anything whatever regarding Past, or pastness, or about the Past . . . For any apperception of Past the cessation of some sensation or image must call up some idea of Past, of something ceasing."[1] We are thus led to see that the nature of the complexity of successive presentations may well be of importance in relation to the existence of the time quality and of its special phases. Let us then turn for a moment to the consideration of this presentative complexity in itself.

Sec. 11. All presentations of reflection are as we have

[1] *Psychology of Time*, p. 123.

seen of a highly complex nature, corresponding with complex emphases within the neururgic system. This complexity is partly due to the fact that the neururgic system is acted upon by a variety of stimuli at the same time: but clearly it is principally due to the fact that this neururgic system is acted upon by a variety of stimuli in successive moments, the effects of one moment's stimulations still persisting as minor neururgic emphases, in moments when new stimulations are giving rise to other and new neururgic emphases.

A specially important mode of this neururgic complexity is given in the fact that the human animal lives in an environment of never ceasing change, in which there is a constant alteration of the position of the sources of stimulation in relation to the human body, either through the movement of these sources of stimulation in relation to the man, or through the man's own movements in relation to his surroundings; these changes of relative position involving great diversity in the power and nature of the stimuli which reach the man's body. Countless sources of stimulation are thus always coming nearer to him and thus becoming more effective to produce minor neururgic emphases within the whole major emphases; and countless other sources of stimulation are always being separated from him and thus becoming less effective to produce these minor neururgic emphases.

It is clear then that if the neururgic patterns in man are considered as wholes they must display constantly varying modes of complexity which are determined by the fact that the important sources of stimulation are either coming nearer to him; or are approximately stationary in relation to him; or are becoming separated from him. That is to say, if we view successive neururgic patterns in comparison, they clearly must display; either 1st, a developing complexity due to the man's approach to effective sources of stimulation, or to their approach to

him; or else 2nd, a stationary condition of complexity due to his retention for the moment of a fixed relation to these effective sources of stimulation; or else 3rd, a simplifying complexity due to his departure from the effective sources of stimulation, or to their departure from him.

It seems clear also that these characteristics of relative complexity which are so important to the inception of activities in the nervous system must also, in consequence of the retentiveness displayed by neururgic systems, be displayed in all forms of successive neururgic patterns if they are viewed in comparison: so that if we thus view successive neururgic patterns we must in all cases find their emphases displaying what we may call a characteristic, involving (1) either a developing complexity, or (2) a stationary complexity, or (3) a simplifying complexity.

It furthermore appears that any two successive neururgic patterns, if taken as wholes, when viewed in comparison must frequently display very distinctly one of these phases of this characteristic; and that they cannot in any given moment display more than one of them thus distinctly. If the relation here referred to is noted at all, the successive neururgic patterns must display either a developing, or a stationary, or a simplifying complexity; and they cannot display very markedly one of the three without the preclusion of the appearance of the other two.

This characteristic given to primary neururgic patterns originally by the form of environmental stimuli will evidently be maintained in all reverberations of these primary complex reactions. We must thus have given a characteristic of all neururgic patterns which will involve a norm of transition, as it were, and departures in one of two opposite directions from this norm: and we note that this norm will be brought into greatest prominence when the man is effectively stimulated by objects which are stationary in relation to him; while the departures from

this norm will be brought into greatest prominence when the man is effectively stimulated respectively by objects coming towards him, and by objects which are moving from him.

Sec. 12. If the hypothesis of a thoroughgoing neururgic and noetic correspondence is true we surely should expect to find in consciousness some general characteristic or quality of presentations corresponding with this three-phased characteristic of neururgic emphases. We should expect to find in all presentations as viewed in retrospect a quality dependent upon their developing, or stationary, or simplifying complexity; a quality of such a nature that (1) one of the three forms above referred to must appear in relation to each complex presentation if considered in reflection; (2) that, under the proper conditions, any one of the three forms may appear; and (3) that the emphasis of one form must necessarily preclude the emphasis of either of the other two, if the field of presentations is considered as a whole.

Moreover if such a general quality of presentations exists, we clearly might expect to find ourselves picturing it to ourselves in terms of our spatial conceptions; for although if looked for it would be always observable, it would correspond in its most emphatic forms with our movements in relation to objects in space, or with their movements in relation to us, these spatial objects being so far the most effective sources of emphatic presentations that we always tend to describe our experience in spatial terms.

If then we ask ourselves whether we note in reflection any general quality of presentations of a three-phased nature which we habitually describe in terms which have special relation with objects coming to us, or with those stationary in relation to us, or with those going from us; we at once agree that we do observe such a general quality in what may be called the Time Quality, which must always appear either in the form of pastness, or presentness, or

futureness; and which as we have seen is most commonly described in spatial terms:—pastness being thought of always as involving something going from us; presentness as involving something with us; futureness as involving something coming towards us.

Sec. 13. It may possibly appear to some reader that this theory might be put to a crucial test by producing, by mechanical means, increases and decreases of presentational complexity, and observing whether or not the appreciation of futureness and of pastness respectively are noticeable in reflecting upon the presentations thus given: and it might be claimed that such changes of perceptual complexity do not self-evidently involve such distinct recognition of what we might expect to be their appropriate time phases. It is to be noted however that such conditions of experiment as we here refer to would give rise to attention to perceptual presentations, due to objects before us, which we have become accustomed by an immense body of experience to identify with the "now-here" from which futureness and pastness are excluded. Furthermore there is ground for holding that the variations in complexity with which futureness and pastness are identified are mainly those in the realm of secondary presentations which do not include the primary presentations of perception such as are involved in the cases of the supposed experiment of mechanically induced increases and decreases of complexity.

Nevertheless it is to be remarked that artificially produced increases and decreases of the complexity of stimulations from objects in fixed relation to us do often give us respectively a sense of coming to us, and going from us: note for instance the effects of musical *crescendos* and *decrescendos*, and of growing and waning intensities of fixed lights. And as we have seen the coming to us aspect of presentations is closely related to futureness, while their going from us aspect is closely related to pastness.

V

Sec. 14. Let us now attempt to symbolize in formulae the nature of typical presentations in general, and of those special presentations in which the time relations become explicit, to see whether the conception of the relation of the time phases to presentative complexity is corroborated by their comparison.

A

As we have seen in an earlier chapter[1] the simplest conceivable neururgic emphasis in the adult man is given if one supposes himself aroused from a deep slumber, say by a crash of thunder or by a glare of light. The deep slumber involves as close an approximation as is possible for the adult man to a dead calm on the neururgic wave surface which we have used as a simile; and upon this relatively calm surface appears suddenly a high wave.

This high and practically isolated wave on the neururgic surface involves a marked noetic emphasis or presentation within consciousness; and this, as we have seen, may be represented by the symbol[2]

$$(A)\quad \left\{ \begin{matrix} {}^{\alpha}P^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\alpha}p^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\}.$$

[1] Confer Chap. v. Sec. 15 ff.

[2] For the convenience of the reader I would remind him that the large *P*'s symbolize any primary presentations or impressions; the small *p*'s symbolizing the corresponding secondary presentations, or so called "representations" or images. The Greek letters over the *P*'s and *p*'s indicate that the presentation of any moment differs from what we call the same presentation of the previous moment, in that the noetic pattern of each moment is affected by the fact that previous noetic patterns have existed. The numbers indicate the minor emphases within the total emphasis *P*, the marks between the numbers indicating relations of any nature which may happen to exist between these minor emphases.

For as the reader will recall we have seen reason to believe that each primary presentation or impression ($\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$ in the above symbol) has bound up with it what would be a secondary presentation ($\overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$ in the above symbol) if the direct action upon us from the environment were lacking. He will also recall that the psychic system tends to absorb, as it were, the noetic emphases or presentations which accrue to it, this resulting in the gradual disappearance as partial presentations from moment to moment of the less marked minor emphases in any given complex presentation, until finally it as a whole disappears as a presentation. This leads us to symbolize any special presentation in three successive moments, two of which follow an impression in moment (1) which is lacking in moments (2) and (3), by the symbols

$$(A)\quad \left\{\begin{matrix}\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\\ \overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\end{matrix}\right\};$$

$$(B)\quad \overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5};$$

$$(C)\quad \overset{\alpha}{p}{}^{1-2-3^{\circ}4.}$$

If, however, the emphatic stimulation continues during the three successive moments, then the presentations of the three moments, as we have already seen, may be symbolized as follows:

$$(1)\quad \left\{\begin{matrix}\overset{\alpha}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\\ \overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\end{matrix}\right\};$$

$$(2)\quad \left\{\begin{matrix}\overset{\beta}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\\ \overset{\beta}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\end{matrix}\right\};\quad \overset{\alpha}{p}{}^{1-2-3^{\circ}4_{\circ}5};$$

$$(3)\quad \left\{\begin{matrix}\overset{\gamma}{P}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\\ \overset{\gamma}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\end{matrix}\right\};\quad \overset{\beta}{p}{}^{1-2-3^{\circ}4_{\circ}5};\quad \overset{\alpha}{p}{}^{1-2-3^{\circ}4.}$$

If now a total darkness ensues in moment (4); and if in this moment we reflect upon the presentation (3) as a whole, and discern in it some special character, we may symbolize the presentation of moment (4) as follows:

(4) $\overset{\gamma}{p}{}^{1\text{-}2\text{-}3^{\circ}4_{\circ}5}$; plus $\overset{\beta}{p}{}^{1\text{-}2\text{-}3^{\circ}4}$; plus $\overset{\alpha}{p}{}^{1\text{-}2\text{-}3}$;

plus { a "sense of relation" determined by the nature of the presentations $\overset{\gamma}{p}$, $\overset{\beta}{p}$, and $\overset{\alpha}{p}$.

Formula (3) as representing the simplest possible state of adult experience has already been given in Section 17 of Chapter V., and as we there saw may be looked upon as typical of all presentations. *It will be noted that it involves a simplification of complexity in the several minor emphases,* $\overset{\gamma}{p}$, $\overset{\beta}{p}$, and $\overset{\alpha}{p}$.

Sec. 15. Now all sorts of presentations occur which have all sorts of emphatic forms: and it is not difficult to show that if we use similar symbols the form of the presentation of reflection upon a state occasioned by a powerfully stimulative object which is moving from us is one in which the typical form of all presentations given in (3) above is very much emphasized. For if a powerfully stimulative object is moving from us the effect of this separation from the object must be to obliterate from moment to moment the efficiency of certain of the elements of the stimulus coming to us from the object, and correspondingly certain partial presentations within the complex presentation must disappear from moment to moment. That is to say the simplification of complexity observable in *all* presentations of reflection, as typified in formula (3), will be greatly emphasized when we perceive objects which are moving from us, or from which we are moving.

If we assume that the flash of light by which the man

is awakened from deep sleep is moving rapidly away from him; the presentations of three successive moments may be symbolized as follows:

$$(1a)\quad \left\{ \begin{matrix} {}^{\alpha}\dot{P}^{1-2-3^{\circ}4_{\circ}5^{\times}6} \\ {}^{\alpha}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\}.$$

$$(2a)\quad \left\{ \begin{matrix} {}^{\beta}\dot{P}^{1-2-3^{\circ}4} \\ {}^{\beta}\dot{p}^{1-2-3^{\circ}4} \end{matrix} \right\};\quad {}^{\alpha}\dot{p}^{1-2-3^{\circ}4_{\circ}5}.$$

$$(3a)\quad \left\{ \begin{matrix} {}^{\gamma}\dot{P}^{1-2} \\ {}^{\gamma}\dot{p}^{1-2} \end{matrix} \right\};\quad {}^{\beta}\dot{p}^{1-2-3};\quad {}^{\alpha}\dot{p}^{1-2-3^{\circ}4}.$$

Here the "dropping out" due to the separation from us of the stimulating object is symbolized by omitting the figures 5 and 6 in connection with $\begin{matrix} {}^{\beta}\dot{P} \\ {}_{\beta}\dot{p} \end{matrix}$, and the figures 3 and 4 in connection with $\begin{matrix} {}^{\gamma}\dot{P} \\ {}_{\gamma}\dot{p} \end{matrix}$.

If then we reflect upon this state (3*a*) as a whole (if we state this in a form related to the serial arrangement of the occurrence[1]) we have

$$(4a)\quad {}^{\alpha}\dot{p}^{1-2-3},\ \text{plus}\ {}^{\beta}\dot{p}^{1-2},\ \text{plus}\ {}^{\gamma}\dot{p}^{1},\ \text{plus}\ \left\{ \begin{matrix} \text{the "sense of relation" determined by the nature of the three partial emphases } {}^{\alpha}\dot{p},\ {}^{\beta}\dot{p},\ {}^{\gamma}\dot{p}. \end{matrix} \right.$$

But it is to be noted that this formula is fully correspondent with the typical formula (4) given above

[1] It is of no significance that in this symbolization the simplification appears in (4*a*) in a form which, so far as the Greek letter distinction is concerned, is inverted (see (4)), inasmuch as each of the minor emphases ${}^{\alpha}\dot{p}^{1-2-3}$, and ${}^{\beta}\dot{p}^{1-2}$, and ${}^{\alpha}\dot{p}^{1}$, is appreciated in one and the same moment, as inherent in one more complex emphasis.

representative of the nature of all presentations in reflection; except that in the latter case (4*a*) the simplification of complexity appears as greatly emphasized in relation to any revival of the original presentation

$$\left\{\begin{matrix}{}^{\alpha}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\\ {}^{\alpha}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6}\end{matrix}\right\}.$$

Sec. 16. What this means then is that a form determined by simplification of complexity is given in *all* presentations; which form is given very emphatically whenever we experience those special presentations due to objects which are being separated from us: and we thus see that it is most natural for us to describe this general characteristic of all presentations in terms used to describe the emphatic form of presentations due to our perception of objects moving from us. We may therefore quite naturally describe this general characteristic of all our presentations as viewed in reflection by saying that they always have a "going from us" aspect.

But as we have already noted, we do experience emphatically very frequently a form in presentations which we commonly describe as giving to them this "going from us" aspect: viz. the temporal form which leads us to speak of the presentation in connection with which it appears as related to the past. It would thus appear that the temporal form which we designate as pastness is one given as, or in indissoluble relation with, the simplification of complexity in the whole complex presentation of reflection.

It would appear also that this characteristic of simplification of complexity, which we recognize as pastness, is given in connection with all of our presentations within consciousness as viewed in reflection, although it is given more emphatically in connection with presentations which involve

the distinct recognition of pastness. In other words the characteristic which when emphatic we speak of as the going from us aspect,—the pastness quality,—of presentations is in fact of the very essence of the nature of all complex presentations given in reflection. (See formula (3), Sec. 14 above.) It is this fact that leads us to refer to the presentative field in general in spatial terms as a stream ever flowing from us.

We are thus able also to account for the important fact, which we describe also in spatial terms, when we say that the time series has a movement in one irreversible direction; a fact which we have seen must be taken account of in any adequate explanation of the nature of the time quality. For evidently if all reflection upon successive presentations involves an appreciation of a simplification of complexity of successive presentations, then when our thought is turned to this aspect of presentations it must be recognized as describable in terms of a stream ever flowing in a given direction; for the perception of such a stream necessarily involves an emphasis of this simplification of complexity within the given presentations.

Sec. 17. We thus see clearly also the ground in experience for the distinction between the "now" and the "specious present" of which we have above spoken. As all presentations as viewed in reflection involve a simplification of complexity as indicated in our typical formula (3) above, so must that special type of presentation which is conceived of as existing in the present moment, the nature of which we shall presently consider. In contrast with those presentations in which this simplifying complexity is much emphasized, in which therefore marked pastness is displayed, this so called present stands out as unique, and is spoken of as the "present." But careful observation shows us the existence of this moving-from-us aspect even in connection with "present" presentations, and under close

scrutiny we find the present of reflection in reality qualified with pastness as all other reflective presentations are, and see that it is in reality a "just gone," and is not the *now* but a "specious present."

Sec. 18. Those of my readers who have followed our thought in Chapter V., in which we have considered the nature of what we usually speak of as "representations," will also now see clearly why it is that such "representations" must always display an emphasis of this general quality of all presentations, and must always be distinctly pervaded by the pastness phase of the time quality.

B

Sec. 19. As we have just seen, on top as it were of this ever moving stream of consciousness, in which pastness is always given, there may appear many minor psychic emphases in various relations; and when these happen to take the form which is emphatically given when distinct objects in space are becoming separated from us this sense of pastness is very much strengthened.

But these psychic emphases in their relations may also happen to take a form which is markedly given when distinct objects in space are moving toward us, or we towards them; and then we would be likely to describe this form as involving a "coming to us" aspect. In such cases the presentations of three successive moments may be symbolized as per the formulae below; for it must be assumed that with the approach of the object to us new forms of partial stimulation become effective to produce new partial psychic emphases in the complex presentation of the moment.

$$(5)\quad \left\{ \begin{matrix} {}^{a}\!p^{1\text{-}2\text{-}3^{\circ}4_{\circ}5^{\times}6} \\ {}^{a}\!p^{1\text{-}2\text{-}3^{\circ}4_{\circ}5^{\times}6} \end{matrix} \right\}.$$

(6) $\left\{\begin{matrix}{}^{\beta}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6_{\times}7}\\ {}^{\beta}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6_{\times}7}\end{matrix}\right\}$; ${}^{\alpha}\dot{p}^{1-2-3^{\circ}4_{\circ}5}$.

(7) $\left\{\begin{matrix}{}^{\gamma}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6_{\times}7^{+}8}\\ {}^{\gamma}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6_{\times}7^{+}8}\end{matrix}\right\}$; ${}^{\beta}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6}$; ${}^{\alpha}\dot{p}^{1-2-3^{\circ}4}$.

Here the newly accruing partial psychic emphases are indicated by the addition of $_{\times}7$ in (6), and of $_{\times}7$ and $^{+}8$ in (7).

These formulae (5, 6, 7) may then be taken to represent the emphatic form involved in the presentations of reflection whenever we perceive objects approaching us; and this may be described as the "coming to us" aspect of the perceptual presentation. But as we have already noted we find that we always attribute this "coming to us" aspect to the temporal phase of presentations which we describe as their futureness; and we may therefore assume that futureness is determined by the existence of this form in the presentation whether it is perceptual or not.

If then we reflect upon this state (7) as a whole, (if we put this in a form related to the serial arrangement of the occurrence,) we have

(8) ${}^{\alpha}\dot{p}^{1-2-3}$, plus ${}^{\beta}\dot{p}^{1-2-3^{\circ}4_{\circ}5}$, plus ${}^{\gamma}\dot{p}^{1-2-3^{\circ}4_{\circ}5^{\times}6_{\times}7}$,

plus $\left\{\begin{matrix}\text{the "sense of relation" determined by the nature of the}\\ \text{three partial emphases } {}^{\alpha}\dot{p}, {}^{\beta}\dot{p}, {}^{\gamma}\dot{p}.\end{matrix}\right.$

The formula (8) then, as a whole, may be taken to represent presentations in which the coming to us time phase, *i.e.* futureness, is emphatic.[1]

[1] Of the special form given to presentations where futureness is marked by the action of the empirical ego and the Self, we speak later. For as Jas. Ward truly says (*Encyclopedia Britannica* Article, p. 64) "An event expected differs from a like event remembered chiefly in two ways, in its relation to present impressions and images, *and in the active attitude to which it leads.*"

But if we examine this formula (8) we note that it involves in a marked form a developing complexity. This becomes clear by placing the comparable parts of the formulae (4*a*) and (8) in conjunction.

(4*a*) Simplification of Complexity :

$$\overset{\alpha}{p}{}^{1-2-3}, \text{ plus } \overset{\beta}{p}{}^{1-2}, \text{ plus } \overset{\gamma}{p}{}^{1},\text{—Pastness.}$$

(8) Development of Complexity :

$$\overset{\alpha}{p}{}^{1-2-3}, \text{ plus } \overset{\beta}{p}{}^{1-2-3^{\circ}4_{\circ}5}, \text{ plus } \overset{\gamma}{p}{}^{1-2-3^{\circ}4_{\circ}5^{\times}6_{\times}7},\text{—Futureness.}$$

It would thus appear that the temporal form which we designate as futureness is one given in, or in indissoluble relation with, the development of complexity in the whole complex presentation of reflection. This seems the more probable because the temporal phase which we speak of as futureness has a characteristic which has been aptly described by Dr. James as "budding." And a still stronger corroboration of this view is given in the fact that futureness is always thought of as diametrically opposed to pastness ; and as we have seen above the pastness temporal phase seems to be related to a simplification of complexity, which is diametrically opposed to the development of complexity which we here suggest as the form to which our appreciation of futureness is due.

C

Sec. 20. We have thus attempted to explain the appreciation of pastness and of futureness as being due to a recognition respectively of the simplification of, and of the development of, complexity in successive presentations. If this explanation is in any respect adequate, it is easy to see that a special characteristic will be given to any presentations in which both the marked simplification and the marked development of complexity are lacking, and in which a relatively unchanging complexity is maintained. Inasmuch as all presentations

of necessity involve forms displaying simplification of complexity, an appearance of unchanging complexity can only be given by artificial means, so to speak, such as are given by continuous emphatic stimulations reaching us in connection with unchanging objects in fixed spatial relation with our bodies. Now just such conditions give us our appreciation of emphatic presentness in connection with emphatic sensational presentations and perceptual experiences of outer world objects, and lead us to describe the presentness qualification of our presentations as the "now-here" aspect. Our experience of these presentations therefore accords well with our theory.

As we have already seen, all presentations as viewed in reflection are really qualified by a measure of pastness: and this is true then even of those presentations which are emphatically qualified by presentness. It is thus easy to comprehend how it happens that in viewing presentations as a whole we note that the presentations displaying presentness —*i.e.* what we call present,—are in reality just gone in relation to the "now" of experience; how it happens that we come to see that this present is not what we mean when we speak of the "now," but what Clay has called a "specious present."

The true present is a mere passing point between pastness and futureness, a position of transition in the time stream from what is coming to us and what is going from us. It is not given as such in reflection where we catch only the "just gone" pastness. It thus corresponds closely with what we call "indifference" in the algedonic realm, which as we have seen is a transitional situation between pleasure and pain.

Sec. 21. In the complex presentations of any moment of reflection there must always exist a present, this as we have seen being for the most part determined by the momentarily existing environmental stimulations. This ever existing elusive presentness serves as a norm as it were, with the

ideal construction of which we in reflection compare the time quality of any particular partial psychic emphasis within the whole complex emphasis which gives character to the noetic pattern of the moment. As Bradley[1] well says: "We are aware of and think of the past as past always by an ideal construction from the present, and the immediate presentation of the past as such would be a gratuitous miracle." The same may be said of our conception of the future.

The general time quality as viewed in the presentations of reflection must always show the passing away or pastness phase, which must appear as such in contrast with this "specious present" of the moment's unchanging complexity: for apart from the existence of such a present of relatively unchanging complexity we could not apprehend by comparison the cessations which pastness involves,—the simplification of the complexity in parts of the complex presentation.

But in connection with all of our complex presentations there is always also some measure of "budding,"—of futureness. This futureness when apprehended also appears as such in contrast with the "specious present" of the moment's unchanging complexity; for again apart from the existence of such a present of relatively unchanging complexity we could not apprehend by comparison the "budding," which futureness involves,—the development of the complexity in parts of the complex presentation.

But if this is true it is also true, on the other hand, that this presentness itself appears as such only by contrast. As James Ward well says,[2] "The present alone, and life as a succession of presents, or in other words continuous occupation with impressions, give us no knowledge of the present as present. This we first obtain when our present consciousness consists partly of memories or partly of expecta-

[1] *Mind*, N.S. 30, p. 152. [2] *Encyclopedia Britannica* Article, p. 64.

tions (states in which pastness or futureness respectively are preeminent, H. R. M.) as well."

Sec. 22. This "specious present" is thus as it were a mere place of transition in the stream, where the futureness phase passes over into the pastness phase, where the complexity appears as neither developing not simplifying. It is true that this "specious present" is never clearly apprehended as a *line* of transition; and so it is true, as Prof. James says, that we apprehend the "present" not as a knife edge but rather as a saddle back with "fringes,"—*i.e.* not clearly apprehended parts,—spreading out on the one hand into the futureness and on the other hand into the pastness.

This is especially interesting as it shows the close relation between the algedonic and the time qualities, in the fact that the algedonic *norm*, viz. indifference, like the temporal norm, viz. presentness, displays this more or less of indefiniteness, so that indifference too may be described better as a saddle back than as a knife edge, for as we have seen much that we speak of as indifference is tinged with what we may also call a pleasure fringe and a pain fringe.

VI

Sec. 23. From our study in the preceding division of this chapter it would appear that the recognition of the time phases is due to the relative complexity of successive presentations as this is appreciated in a complex presentation of reflection which embodies the relation between these successive presentations. Or if this seems to be going too far it may at least be well claimed that these time phases are determined by some characteristic of such reflective presentations which varies, practically, directly with variations of this complexity. If this is the case then certainly the time phases must be phases of a general quality of all presentations, and it will be worth our while in closing this

chapter to pass in review the characteristics of these temporal phases in order to see how far it is possible to account for them under this psychological hypothesis.

Sec. 24. The Time Quality then appears to be a general quality of all presentations as viewed in reflection.[1] Each specific presentation must display either marked pastness, or presentness, or futureness; and under the proper conditions it may display either of the three; but if it displays a marked pastness it cannot in itself display marked presentness or futureness, if it displays a marked presentness it cannot in itself display marked pastness or futureness, and if it displays a marked futureness it cannot in itself display marked pastness or presentness.

In order to avoid misconstruction of the above statement it must at once be noted that we have thus spoken of specific emphases or presentations as given in experience. It has been stated as an objection to my theoretical position that it is quite possible to apprehend certain conceptions as timeless: such for instance as God or virtue. But in such cases we are dealing with complex concepts of which part of the connotation is timelessness; which timelessness is itself of a conceptual nature. Such a criticism therefore altogether fails of its mark; for all that is claimed here is that all presentations, of which the timeless concept is a special case, are themselves, *as experienced presentations*, necessarily qualified in such a way that we are always able to place them either in the past, or in the present, or in the future.

Sec. 25. The fact that we here speak of specific presentations must not be overlooked in another connection. In ordinary experience our psychic emphases display complexes of minor emphases within the major emphasis; the field of presentation taken as a whole is always a complex of more or less clearly differentiated minor presentational parts, each

[1] Cf. Münsterberg, *Grundzuge d. Psychologie*, pp. 320-330; whose argument appears implicitly to involve the position here maintained.

of which so far as differentiable has its specific character. Hence we might expect, when we consider experience as a whole in reflection, to find that it always displays some pastness, some presentness, some futureness ; one of the three phases being usually more emphatic than the others as one of the partial presentations in the whole complex is more emphatic than the others. It is this experience which leads us as we have seen to describe experience as a whole as a "stream," in part ever flowing toward us, in part being with us, in part flowing away from us.

At the same time we can scarcely expect to find any moment of experience in which one of the three phases, either the pastness, or the presentness, or the futureness, is not markedly predominant.

(*A*) When the most emphatic part of the noetic pattern under consideration displays marked futureness we speak of the whole presentation as relating to the future, although in it as a whole exists something of presentness and of pastness. When for instance I think of the next President of the United States, in the presentation as a whole there is an emphasis of futureness : and yet there is not lost a sense of presentness, not only in the fact of the appearance of a new partial emphasis arising in correspondence with the moment's environmental stimuli, but also in the fact that there exists dimly the minor partial presentation "a President now existing" : nor is there lost a sense of pastness, in the vague cognizance of the nature of Presidents as they have existed for over 100 years. In such a case, however, this presentness and pastness are all in the background, and we think of our next President as in the future ; the presentation or noetic emphasis as a whole has marked futureness.

(*B*) When the most marked part of the noetic pattern under consideration is that part which displays distinct presentness we speak of the whole presentation as "the present." And in a vastly large proportion of the moments of life this

is the experience which is emphatic; and this because the influences of environmental stimuli are so usually forceful and persistent. The page which you now read has this presentness for you: but within the complex presentation of this moment a minor emphasis of what you have just read is passing away, as we say in our spatial terms; *i.e.* this minor emphasis has the quality of pastness, it is fading off into what Dr. James calls the "backward fringe." At the same time the end of the sentence that I am beginning is "budding" as a minor presentation, as a minor emphasis within the whole noetic pattern of the moment; and so far as it is presented at all it has the quality of futureness; this is what Dr. James calls the "forward fringe."

(*C*) When the most emphatic part of the noetic pattern under consideration is that part which displays marked pastness we speak of the whole presentation as relating to the past. When you think of the first words of this chapter pastness is emphasized; nevertheless you cannot rid yourself of the less emphasized presentness of the minor presentations corresponding with the moment's effects of environmental stimuli; nor can you rid yourself of the more or less dim futureness, or "budding," which goes with each moment of existence.

Sec. 26. While there is thus something of pastness, and of presentness, and of futureness, in connection with all presentations; nevertheless, as we have already said, a marked degree of emphasis of one of the three phases of the time quality in connection with a definite emphatic minor presentation precludes the emphasis of the other phases. The thought of my grandmother is so distinctly of the past that the presentness and futureness of the total complex presentation of the moment disappear by comparison. The pressure on my tired hand as I write is so distinctly of the present that the pastness and futureness of the total complex presentation disappear by comparison.

The thought of our next President is so distinctly of the future that the presentness and the pastness of the total complex presentation disappear by comparison.

Sec. 27. While it is true in general that where a presentation is distinctly qualified by one temporal phase the existence of the other two temporal phases in connection with it is overlooked; nevertheless our presentations are so complex that they are, as we have seen, often more or less clearly separated into minor psychic systems, and thus we not infrequently find various phases of the time quality sufficiently marked to be noted at one and the same time in connection with slight changes in the nature of a given presentation.

A presentation of practically the same nature may be noted in reflection as belonging in the past, the present, and the future: for example we may note our conception of the processes of evolution in the physical world, which we conceive of as *having governed* in the past, and as *being exhibited* in the present, and as *to continue* in the future.

We may note a similar presentation as in the past, and in the present, to the exclusion of the future: as for example when we revisit some haunt of our childhood which we realize we cannot again see in the course of our lives. We may note a similar presentation as in the present and in the future, to the exclusion of the past; as when one receives an increase of income through the unexpected increase of his salary. We may note a similar presentation as in the past and in the future to the exclusion of the present: as when, engaged in business, one thinks of his games of golf as played yesterday and to be played tomorrow.

Sec. 28. The ordinary flow of thought involves, as we know, an absence of sensational emphasis with which, as we have seen, the sense of presentness is especially

connected. We should therefore expect to find, as we do, that when we look at the field of presentations as a whole we especially experience the play of pastness, and of futureness, in relation to our thought trains. Not that presentness is excluded; rather that the occurrence of futureness and presentness and pastness are more equally observed by us in the region of the free flow of thought than elsewhere: and that futureness and pastness are especially noteworthy in this region of thought because in other regions presentness is wont to be so emphatic.

Sec. 29. In certain cases a given presentation of the past, when viewed in the reflective presentation of the moment, may have a characteristic pastness quite apart from the mere pastness involved in the time flow of the moment; this being due to its firm connections with all that vast field of secondary presentations that are bound by indissoluble bonds to those secondary presentations in which the past-time form is emphasized. I have for instance the presentation "my great-great-grandfather." This man is thought of as in the past without any question: yet I have had no experience of that great-great-grandfather to account for the pastness of the presentation similar to that which enables us to account for the pastness of the thought of an event of yesterday, or of last week, which we describe as being due to the holding in mind of a train of secondary presentations in which we can see that decreasing complexity must be a marked characteristic.

It is easy to see that a vast field of secondary presentations must necessarily be attached by inherent bonds to the lately experienced past. This vast field so far as its time quality is emphasized in attention becomes for us *the Past* as a special presentation. Whenever any secondary presentation due to a thought process which is only indirectly the result of experience, is found to be indissolubly attached to this vast field which we call *the Past*, then although it may not

have in itself the emphatic marks of pastness it nevertheless is identified with *the Past*. The truth of this view becomes clear when we consider the case just referred to. The idea of my father is distinctly part of the experience of my life in which the quality of pastness is emphatic: the idea of my grandfather who died in my childhood is only to a very small degree part of that experience: but the idea of my great-great-grandfather, while having in itself no other pastness than that inherent in the time flow of the momentary presentation, gains its distinct pastness by its inherent attachment to the body of experience in which the quality of pastness is emphasized in reflective attention.

In fact if we note our experience with care we find that an indefinitely small part of the presentations which we call past have any thing more to warrant this qualification than this attachment to the inextricably complex web which spreads away from those late experiences, which give us the presentations of the *late past*, in which the form of pastness is emphasized. Even the thought of my father, who died not so many years ago, is I find in no small part merely past in the same sense in which the thought of his great-grandfather is.

Sec. 30. In a similar manner a given presentation, when viewed in the reflective presentation of the moment, may have a characteristic futureness quite apart from the mere futureness involved in the time flow of the moment; this being due to its firm connection with all of the field of secondary presentations which are bound by indissoluble bonds with those secondary presentations in which the future-time form is emphasized. I think for instance of my grandchildren as in the future, and here the development of the presentation which relates to what is entirely within the possibilities of experience gives without doubt an inherent futureness to the presentation. But when I

think of my great-great-grandchildren I think of them equally as distinctly in future time: yet no possible experience to be mine can account for the distinct futureness of this presentation.

It is clear, indeed, in a manner similar to that noted in relation to pastness, that a broad field of secondary presentations must attach to the field in which true futureness is emphasized. This field so far as its time quality is emphasized in attention becomes for us *the Future*, as a special presentation. This field is appreciably narrower than the field of *the Past*: and, as we shall see in a later chapter where we consider the nature of expectation, the width of this field of *the Future* would be indefinitely smaller than it is were it not for processes connected with, and developed out of, past experience.

Whenever any idea is found to be indissolubly attached to this field which we call *the Future*, then, although it may not have in itself the emphatic marks of futureness, it nevertheless is identified with *the Future*. The idea of my grandchildren certainly has some considerable amount of futureness inherently attached to it: but the idea of my great-great-grandchildren can have but little of this inherent futureness, although it is distinctly placed in *the Future*, and that by the process above described. It gains its distinct futureness by its attachment to the body of experience in which the quality of futureness is emphasized in reflective attention. In fact only an indefinitely small part of the presentations which we think of as in the future have anything more to warrant this qualification than this attachment to the inextricably complex web which is connected with those experiences in which futureness is distinctly emphasized.

Sec. 31. As we have seen, when a presentness is noted it stands always in relation to a futureness or a pastness. In describing it we might well say "this is a not past," or "this

is a not future," "it is the actual present." And here we have no possibility of the attainment of any such indirect process of attachment as is observable with pastness and futureness. The Past is a stream of indefinite dimensions: the Future appears also as a stream, although its extent is less than that of the Past. The Present (the "specious present") however is but the cross section of this stream, and as such stands in distinct contrast in this respect with the Past and with the Future.

Sec. 32. It seems clear that the form of the presentations within consciousness is determined by the reverberant nature of the coincident activities of complex neural systems, in connection with the processes which we speak of as physical and psychic assimilation. I have sought in this chapter to show that under these conditions these factors, which are always implicated in each moment of consciousness, themselves involve the experience of the time flow; and that this must appear either as pastness, or futureness, or as a somewhat which is a transition between the two, which we call presentness.

Even if it is shown that the suggested relation of the time phases to presentational complexity is unwarranted, nevertheless I think the facts brought out in the course of our study have shown conclusively that Timeness is a general quality of all presentations, of a three-phased nature; that in reflection at least one of these three phases (pastness, presentness, or futureness) must usually be predominant; and that if any one of these three phases becomes predominant as a qualification of any given presentation, this fact necessarily excludes the prominence of either of the other two in connection with the same presentation.[1]

[1] The explanation of the time flow in terms of complexity in what has preceded this leaves untouched a problem of importance which the reader may expect to find treated in this connection. Presentations which come to us in the form of what we call events give us not only the experience of

Sec. 33. It may well be noted here that if this view is correct the time quality, and the spatial quality, which we consider in Appendix A (*Sec.* 21 ff.), are not on the same psychological plane, if we may so speak. The time quality is a general quality of all presentations, while the spatial quality, although attaching to a vast number of our presentations, does not attach to all of them. Space and Time would thus appear to be categories of diverse orders, and not so closely related as certain of our modern thinkers are wont to claim or imply.

Sec. 34. The efficiency of the unemphasized undifferentiable psychic system upon the presentations which yield our appreciation of the diverse time phases must not be overlooked; but as it will be necessary to study this subject fully in a later chapter consideration of it will be deferred in order to avoid unnecessary repetition.

the time flow, but when given to us in the "now" are referred to special positions in time: they are more or less definitely *dated* in the past or future, or else are distinctly recognized as present. All presentations as such may be looked upon as events in consciousness; but, if they are considered not as parts of the stream of consciousness, but in relation to other presentations, not all presentations are events. Such presentations for instance as those which give us our notion of general mechanical laws are not events. Persons are not events. It is clear therefore that the characteristics which constitute a presentation an event are not necessarily found in all presentations, and that it will therefore be out of place to consider them here where we are treating only of the general qualities which belong to all states of complex consciousness.

PART II

QUALITIES OF RELATION DETERMINED BY THE CORRELATION OF THE GENERAL QUALITIES STUDIED IN PART I

DIVISION I. INTRODUCTION

CHAPTER XIII

THE GENERAL RELATIONS WITHIN GROUP I AND GROUP II

Sec. 1. In Part I. we have seen that Intensity, Manifoldness, and Realness, in Group I. ; the Algedonic Quality, and the Time Quality, in Group II., are general qualities which must attach to each presentation observable in reflection. If this is true then each presentation must display at the same time some measure of each of the qualities in Group I., and some phase of each of the qualities in Group II., and special characteristics might be expected to be noted in connection with special presentations which display in marked form two or more of these qualities in conjunction.

Before enquiring whether such distinctive characteristics are discerned we may well note the relations existing between the general qualities within Group I., and those between the general qualities of Group II.

I. The Relations between the General Qualities within Group I.

A. Intensity and Manifoldness.

Sec. 2. It is generally agreed, as we have seen, that a high degree of intensity in connection with a given presentation corresponds with a high degree of activity in some special limited part of the nervous system: while on the other hand a high degree of manifoldness in connection with a given presentation corresponds with a multiplicity of less emphatic degrees of activity in a larger number of parts of the nervous system, each one of which however is sufficiently high in degree to be noticeable in contrast with the activities of the mass of the nervous system taken as a whole.

It appears clear that the prominence of a very marked degree of activity in one part of the nervous system is necessarily incompatible with the prominence of a notable multiplicity of less emphatic activities in many parts; and therefore we may say that the neururgic characteristic given when the emphasis of the moment is due to a very marked activity of a relatively narrow nervous part, must vary inversely with the neururgic characteristic given when the emphasis of the moment is due to the less marked activities of a multiplicity of nervous parts.

Sec. 3. Evidently then we should expect to find Intensity and Manifoldness inversely related. The more intense the presentation of a given moment is, the less of manifoldness should it display: and *vice versa* the more of manifoldness displayed in connection with a given presentation the less intense should it appear: and clearly this expectation is met in our experience.

In general we may note that the states of mind in which manifoldness is most prominent, *e.g.* the lazy, drowsy, just-

falling-asleep states, are those which give us no appreciation of intensity. And when we turn to particulars we note that those presentations which we describe as "thoughts" in the main display high degrees of manifoldness, while they can seldom be said to display any marked points of intensity. So the emotions are in general notably manifold and at the same time lacking in intensity of detail.

The consideration of the sensations shows us most clearly that those specific presentations in connection with which intensities are most frequently noted are the ones in connection with which it is most difficult to discriminate manifoldness. The loud, shrill, intense, whistle-sound appears to lack manifoldness; while on the other hand the low rumble of thunder which seems manifold and voluminous appears to lack intensity of specific tones. With the twilight which seems broad and full we do not connect the notion of intensity: while the light sensation coming from some star in the heavens appearing punctual, *i.e.* lacking in manifoldness, may seem to us to be very intense, although the amount of light reaching us from it is much less than that given in the twilight glow.

B. Of Intensity and Realness.

Sec. 4. If the activity of a special nervous part is of high degree in any given moment the activity of this part will tend to become predominant in successive moments; that is to say, this high degree will tend to give to the activity of this part a certain measure of stability in the development of the neururgic patterns of successive moments. A high degree of nervous activity in a part should therefore tend to vary directly with the stability of the emphatic activity within the neururgic pattern in which it inheres.

But this high degree of neural activity on the one hand corresponds with intensity; and on the other hand under

our view this neururgic stability corresponds with realness in connection with the given presentation. We should therefore expect to find that intensity and realness in connection with any given presentation are directly related:—*i.e.* that the more intense a given presentation is, the more of realness it will tend to display; and *vice versa* the less of intensity, the less of realness.

Sec. 5. I think the reader will agree with me that exactly this expected relation is found in our experience. As we shall presently see, a recognition of realness is involved with the mental attitude which we describe as belief: Hume [1] is therefore referring to what I call the sense of realness when he speaks of the "sentiment of belief." When therefore he says "the sentiment of belief is nothing but a conception more intense and steady than what attends the mere fictions of the imagination," he is really saying in his own way that, according to his introspective observation, intensity goes hand in hand with "steadiness," or what I should speak of as stability or realness.

If our view is correct we should expect to find realness appreciated most distinctly and completely in direct or indirect connection with our sensational experiences in connection with which intensity is most marked. Thus it is that a loud sound, or a vivid flash of light, can scarcely be thought of as unreal. Beyond that the percepts closely related to our sensational experiences give us so constantly the sense of realness that there can be no doubt that Dr. James is right [2] in holding that the real world *par excellence* is the world of sensation-perception.

On the other hand sensational "dimness," or lack of the intensity of sensations and sensation-percepts, is coupled in our minds with lack of realness. The mere flitting light on the mist is "ghostly" and unreal; the dim shadow of

[1] *Human Understanding*, sec. v. part ii.

[2] Confer *op. cit.* ii. pp. 299 to 306.

the man is unreal in comparison with the more intense sensation-percept of the form of the man himself.

As we have seen, what we call the "vividness" of a thought or concept must be looked upon as a form of intensity. So we are prepared to find that coupled with this vividness goes a tendency to the apprehension of realness. These flitting lights on the mist as such have no intensity, and are lacking in realness: but let them gain a meaning of importance in the conceptual world,—let them, for instance, arouse in the mind of the superstitious the notion "it is a ghost,"—and at once the presentation gains vividness; and it acquires at the same time a realness which sends shivers down the back, and makes the man run for his life. For my readers and for me, even if the notion of the ghost arises in mind, it fails utterly to gain such vividness, and fails also of that realness which produces defensive reactions in every day life. It sends no shivers down our backs, and we have no tendency to crouch or to run.

C. Of Realness and Manifoldness.

Sec. 6. As we have seen above, Intensity and Manifoldness tend to vary inversely, while Intensity and Realness tend to vary directly; of necessity therefore, if our view is correct, Realness and Manifoldness must tend to vary inversely: the more of realness which is attached to a given presentation the less of manifoldness will be attached to it: and *vice versa*, the less of realness the more of manifoldness.

It seems clear that theoretically the existence of a marked stability of a given special presentation which yields realness is incompatible with the marked appreciation of the broad complexity of points of noetic emphasis which yields manifoldness. And conversely that a great exaggeration of manifoldness will in general tend to result in a loss of the stability of any given special presentation: for each point

of emphasis becomes a possible point of appearance of a new form of noetic pattern: and each such possible noetic pattern may perchance be one which will displace the one existing when the new emphasis arises. It appears therefore, from this point of view also, that realness and manifoldness must be inversely related.

And this we discover to be the case in our every day experience. Vagueness, dimness, lack of distinctness, failure in definiteness, are terms descriptive of marked manifoldness, *i.e.* of a marked complexity, rather than of simplicity, in the presentations to which these descriptive terms are applied: and vagueness, dimness, lack of distinctness and definiteness, are all connected in our minds with the sense of unrealness. That is, a full manifoldness is recognized as going hand in hand with failure of realness.

On the other hand we are likely to describe the real as clear, distinct, definite; that is to say the presentation that has realness is lacking in manifoldness. The vivid, keen, "simple" sensations, the pain that is so lacking in manifoldness that we speak of it as sharp and pointed, are experiences which seem to us pre-eminently real. It is the definite object,—this man before me,—that is real: his shadow, which is vague and shifting, that is unreal.

Sec. 7. It thus appears that Intensity and Realness are directly related, and that they are both inversely related to Manifoldness. When intensity is marked realness tends to be appreciated; and when realness is marked intensity is likely to be appreciated. So again when manifoldness appears very marked intensity and realness are not likely to be noted; and when intensity and realness are marked manifoldness is not likely to be distinct.

II. The Relations between the General Qualities within Group II.

The Relation between the Algedonic and the Time Qualities.

Sec. 8. Introspection shows us that presentations which are relegated to the past may be either pleasant, indifferent, or painful ; and that the same is true of those qualified by presentness, or futureness: *i.e.* there seems to be nothing in the nature of a time phase which carries with it a tendency to the existence of any special algedonic phase in connection with the presentation to which the special time phase is attached. Nor on the other hand does it appear that any special algedonic phase is identified with any special time phase: pleasures may be appreciated as past, as present, or as future ; and the same is true of pains.

These observations accord well with our hypotheses as to the neururgic correspondents of the algedonic and of the time qualities. For according to our view the phases of the algedonic quality correspond with relations of efficiency in neural elements ; while the several time phases of presentations are due to the development, or fixity, or simplification, of complexity which must correspond with similar relations of neururgic complexity. Clearly differences in the grade of efficiency, which would involve modifications of algedonic phase, might exist without involving any definite development, or fixity, or simplification, of complexity in the presentation in which any special algedonic phase inheres ; and on the other hand specific changes of complexity would not necessarily involve definite phases of efficiency in the elemental parts of the neururgic pattern in relation to which the time phases are developed.

Sec. 9. We are thus led to see that the relation between the Algedonic and the Time qualities is necessarily inde-

terminate. There is no special reason why an emphasis of any special algedonic phase should always be given with the emphasis of any special time phase, or why the emphasis of any special time phase should always be given with the emphasis of any special algedonic phase.

The reader will note that we refer here particularly to the relation of the algedonic and the time qualities in specific presentations. That the algedonic quality of a given presentation has a definite relation to the development of *subsequent* noetic patterns, and the appearance of revivals, will become evident in the chapter in which we consider the relations of the algedonic quality of presentations to the movement of attention.

III. The Correlation between the General Qualities of Groups I. and II.

Sec. 10. As within Group II. the algedonic and time phases are indeterminately related, we should not expect any recurrence of marked special forms given to presentations in connection with the coincident appearance of specific algedonic phases and specific time phases, sufficiently constant to lead us to appreciate them and give them special names.

But on the other hand, as we have seen, the qualities within Group I. are definitely related and we should expect to find cases, first where a marked intensity, and second where a marked realness, would be noted as related to an appreciated manifoldness of the broader presentative field. In such cases we should expect to discover the appearance in the presentative field of new combinational senses of relation due to the coincidence of the senses of relation which yield the appreciation of intensity, manifoldness, and realness. To a consideration of these combinational senses of relation we shall devote Division II. to follow.

Sec. 11. Turning to the broader correlation between the general qualities within both Groups I. and II. we perceive that if we have five general qualities each of which must appear in some phase in connection with each presentation ; then the manner in which emphatic experience of these phases of these general qualities are experienced together might be expected to give us more or less distinctly marked forms in our noetic patterns, which will be worthy of study. For instance, a presentation might be lacking in manifoldness, and at the same time might have much of intensity, much of realness, and might on the whole be painful, and might display the time phase which we have called pastness. Or perchance it might display much of manifoldness, might lack intensity and realness, might be pleasant, and might display the time phase which we call futureness. If we are to carry out our method thoroughly we are surely called upon to examine all the forms given to presentations by the possible simultaneous combinations of the emphasis of the several phases of these five general qualities.

This task, which at first glance may appear to be a formidable one, seems much less so however when we consider the two conclusions already reached: first that within Group I., intensity and realness vary directly, and that both intensity and realness vary inversely in relation to manifoldness: second that in Group II. the relation of the algedonic quality to the time quality is indeterminate.

The first of these facts, involving the impossibility of the emphasis of either intensity or realness simultaneously with the emphasis of manifoldness, enables us in our consideration to group together manifoldness and intensity on the one hand, and manifoldness and realness on the other: while the second of these facts enables us to treat the algedonic and the time qualities separately in relation to the qualities of Group I.

We are thus led to see that we may properly study our problems under the following Sub-Divisions:

Sub-Division I. The Algedonic Quality in relation to the qualities of Group I.

A. The Algedonic quality in relation to Intensity-Manifoldness.

B. The Algedonic quality in relation to Realness-Manifoldness.

Sub-Division II. The Time Quality in relation to the qualities of Group I.

C. The Time quality in relation to Intensity-Manifoldness.

D. The Time quality in relation to Realness-Manifoldness.

To such consideration we shall turn in Division III.

DIVISION II. THE CORRELATION OF THE GENERAL QUALITIES OF GROUP I

CHAPTER XIV

INTENSITY AND MANIFOLDNESS. ATTENTION. VOLUNTARY ATTENTION

I

Sec. 1. ALTHOUGH the appreciation of intensity in relation to any specific presentation tends to exclude the appreciation of manifoldness in relation to the same presentation ; on the other hand if a distinct noetic pattern exists in any given moment, and is appreciated as such, it certainly must include a relatively narrow field of intensity and a relatively broad field of manifoldness in one and the same moment, and we might expect that the relation between these two fields, if considered in itself, might present some characteristics worthy of our study. It would appear that a new sense of relation must be developed by the correlation of the intensity sense of relation developed in connection with a special part of the noetic pattern, and the manifoldness sense of relation developed in connection with the presented broad noetic system apart from the intense part.

If such a sense of relation exists we might expect to find it described in terms of that special form of presentation, very common and emphatic in our experience, which we know as the visual psychic field ; for in this field we have a very emphatic element of light sensation, spoken of as

within the focus, which stands over against and in contra-distinction from a wide visual field, a broad manifold of light sensations of very inferior distinctness.

The reader will at once realize that we do use our experience of the visual field to typify a very general aspect of consciousness which we speak of as Attention. It is a commonplace to describe the most emphatic psychic element as being in the *focus* of attention, implying in this very phrase the existence of a mass of minor presentations beyond this focus which we speak of as the *field* of attention: a field which, as we shall presently see, fades away in distinctness and definiteness into what I speak of as the field of *inattention*.

We have then in what we may call attention-experience the appreciation of a combinational sense of relation due to the coincident effectiveness of the intensity and manifoldness senses of relation. As Mr. Shand[1] well says, we must hold "that Attention is as directly felt or experienced as sensation, that it is presented, and not merely thought about or conceived; that so far from being something outside the stream of events, it is an event or succession of events; that so far from being pre-eminently active, if it be active, it is only so in the sense in which all other mental elements including sensations are active, which in submitting to change themselves modify the change they submit to, and in actively influencing the course of mental events are as certainly modified and conditioned by preceding and accompanying events."

In what follows I shall usually use this term attention-experience where I refer to the subjective appreciation of attention, using the word attention alone in this sense only in the interest of brevity where the subjective implication is clear. In general where the mere word attention is used we are considering the matter before us quite objectively.

[1] *Mind*, N.S. 12, p. 469.

It is worth while to note in passing that, in this habit of typifying the nature of the whole field of consciousness by describing it in terms of our experience of that especially prominent part of the field of presentations which we speak of as vision, we have a weighty corroboration of the validity of the conception of consciousness as a system of minor psychic systems in which the action of any minor system is the verisimilitude of the action of the complex system as a whole. For the visual nervous centres are clearly highly systematized as such, and yet constitute but a minor system within the whole brain system, which is the pre-eminently important part of the whole nervous system. As the activities within this visual minor system typify the activities of the nervous system as a whole, so in this natural habit of comparing the whole field of attention with our visual experience we implicitly acknowledge that our conscious experience as a whole is typified by our experience in this most prominent part of the field of presentations.

Sec. 2. Titchener tells us[1] that "the problem of attention centers in the fact of sensible clearness"; and[2] that "clearness is an independent attribute of sensation" which "may vary independently of intensity"; although "change of clearness always involves a change of intensity as well." One cannot but hesitate to question so positive a statement of so thoroughly equipped and thoughtful a psychologist; and yet one is naturally led to note the limitation of his view as thus stated to sensational considerations, and to recall that a large part of our attention-experiences are within the realm of thought, and therefore in our view non-sensational.

And when we consider the matter with care we are led to see that the facts upon which Titchener bases his statements above quoted may all be interpreted in terms of the shifting of attention. When we look upon the clearness of a sensation as distinct from its intensity we are considering the

[1] *The Psychology of Feeling and Attention*, p. 182. [2] *Op. cit.* p. 219.

relation of the sensation to a very different psychic field than that involved when we consider what we call the intensity of the sensation as such.

In this connection I must ask the reader to refer back to my remarks as to the relation of vividness to intensity in Chapter VIII. Sec. 4, and to note that clearness is but another name for vividness. I there argued that vividness was our name for intensity in fields of a broader nature than those in which the typical intensity, viz. sensational intensity, appears. When we consider clearness or vividness we are dealing with attention in a field of broader significance than when we consider intensity, in which latter case we deal with attention in a field of narrower significance.

That no such distinction as that made by Titchener will hold seems clear in the very fact which he asks us to note; viz. that "change of clearness always involves a change of intensity as well"; which in my view is but another way of saying that what in one field appears as a change of what we commonly call clearness or vividness, in another field appears as a change of what we commonly call intensity.

If we thus agree that intensity and clearness are names for the same characteristic in different settings, then it is true, as Pillsbury says,[1] that "Attention is fundamentally a change in clearness of some one phase or aspect of a mental process."

If we thus use the word intensity as the generic term we may then say that attention-experience appears as not identical with intensity, although it involves intensity; it is intensity as related to the manifoldness of all the rest of the field which makes the total presentation of the moment of

[1] *Attention*, p. 11. As Prof. Pillsbury says (p. 3), certain writers (*e.g.* Mach and Stumpf) hold that in attention the intensity of a psychic part is increased; while others (*e.g.* Wundt) hold that the intensity of all but the part attended to is decreased. Pillsbury thinks it impossible to determine which of these views is correct.

consideration. Both the focus and the rest of the field of attention are noted as involved in the whole complex presentation of the moment, the focus being the center of most marked intensity.

Sec. 3. The focus of the attention-experience is relatively simple, and may at times be almost punctual if we may so speak; yet if we will take the trouble to observe carefully we will find that even within this focus a certain minor degree of manifoldness may, and usually does, develop, so that usually even this focus appears to display a multiple character.[1] In our experience of what we call the field of attention however we have a very marked complexity of closely related elementary psychic parts, any one of which may become the focus of the attention-experience, and no one of which continues for long as this focus. In picturing this to ourselves in visual terms, we are wont to speak of the focus as playing over this field of attention, as it were; or as wandering now from one elementary part to another. However we describe it, it is clear that this field of attention is always highly complex.

Evidently then this *field* of attention is a broad, but in itself a minor, emphatic psychic system within the whole of conscious experience, and a minor psychic system which may vary greatly in its breadth. On the other hand the *focus* is a markedly emphatic element within this minor psychic system. But just as it is impossible to make a definite distinction between any special high wave, or set of waves, and the mass of mere tremors on the surface of the sea, saying that the former influence the wave surface pattern and the other not: just as it is impossible to say that any specially active parts of the all active nervous system determine the neururgic pattern of the moment, and that the less prominent activities in the other parts of the whole system have nothing to do with the nature of this neururgic pattern: so it is

[1] Confer Pillsbury, *op. cit.* pp. 64 ff.

impossible to make a definite distinction between the field of attention and the rest of conscious experience in any given moment. The field of attention itself fades off into dimness, very much as the visual field varies from the clearness in the focus to the dimness in the margins of the field. There are thus varying modes of attention, if we may so speak; and however emphatic any specific field may be, it fades away into a field of manifoldness.

This field of manifoldness, still of consciousness, against which the focus and field of attention as such is rather indefinitely contrasted (very much as the focus of attention is contrasted rather indefinitely against the field of attention itself), we may well describe as the field of *inattention*.

Our field of consciousness in all moments thus varies all the way from the most vivid attention to the vaguest inattention. Against this field of inattention both a focus and a field of attention appear in contrast. At times, as in our active inquisitive moods, the field of attention-experience is so prominent that the fading of attention into inattention is not noted. At other times, as when we are falling asleep, all foci of attention disappear, and even the fields of attention seem to wane, then the field of attention itself becomes noticeably pervasive and vague, fading off into inattention.

Sec. 4. It may be well before we go farther to speak of certain errors which should be avoided in our thought upon this subject. The common man, and even the psychologist, often speaks of attention as though it were a faculty rather than a psychic situation. We are wont to refer to attention as though it were a force that acts. It is thus that, instead of speaking of objects attended to, we often, speaking of objects of attention, use the phrase as though attention itself were an entity active in relation to the object. A presentation is an object only as it is contrasted with a subject; and only in case it were possible to identify attention with the subject, as is of course impossible, would it be proper to look upon

attention itself as an active force or entity. Consciousness puts on, so to speak, the characteristics of attentiveness or inattentiveness under diverse conditions. Attention does not *do* this or that; but consciousness *is* this or that, and in being this or that attention or inattention appears.

Attention is itself a special form of experience. It involves the existence of a certain definite relation between the elements of consciousness; and this relation so far as it appears in itself as a presentation must necessarily involve the existence of a differentiation of consciousness. The process of attention thus involves the existence of a special "sense of relation" which itself may, and as we all recognize does very often, become a presentation in itself, and then we have the attention-experience.

Again it is to be noted that conditions of attention, as well as what we shall later describe as acts of voluntary attention, may of course themselves be attended to: that is in retrospect the presentation may consist of what are usually called the "representations" of states of mind in which attention was involved. When in reflection we consider attention as a process, or when we consider any specific act of attention, then we have within the focus of attention a presentation which may be described as the relation between intensity and manifoldness, which we are here considering.

II

Sec. 5. As we have seen above the presentative field displays widely divergent phases of attention, varying all the way from marked attention to the dimmest of inattention. As the presentations which involve marked attention are those from which we must judge of the nature of consciousness itself it is well to consider the conditions which favor the rise of attention.

In cases of marked attention the presentative field, as we have noted, consists of a relatively broad field of a certain low degree of emphasis, within which some special part displays an emphatic intensity in relation with the broader field.

Evidently without the broader field of low degree of emphasis attention as such cannot exist. A relatively simple and very intense elementary psychic emphasis might exist as a presentation, but unless the broader field of less emphasis to which it can be related also exists attention cannot be said to occur. This means that we must be more or less "awake" if the condition of attention is to occur: for this awakeness involves the existence of a certain more or less distinct noetic pattern, of a more or less broad and definite field. That this is true is clear when we consider the effect produced in us by a sudden very powerful stimulus when we are sound asleep, *i.e.* when no noticeable field of presentation exists,—when the noetic surface, so to speak, presents an approximately dead level. If a pistol is discharged at the ear of the sound sleeper he certainly experiences a most intense sensational presentation; but he as certainly cannot be said to pay attention to it at the moment the vivid sound exists. To be sure this intense sound sensation immediately awakens him, *i.e.* immediately following it appears a broad field of presentations of low degree of emphasis; and in relation with this field he is likely at once to experience a state of attention, which involves a relation between this newly appearing broad field and the intense sensational sound due to the still existing air reverberations. At times however he may not even be able to assimilate this sound with his newly given field, and then he will not know what awakened him. He will probably find attention arising in another direction under such conditions:—will probably find himself with eyes straining to look out into the darkness; in this case the intense motor sensations, and not the sound

sensations, being contrasted with, and related to, the broader field involved with the fact that he is fully awake.

Assuming then a measure of this "awakeness," assuming the existence of a more or less broad field of less emphatic presentations, we may now consider objectively the conditions which favor the appearance of the specially intense psychic part which is brought into relation with this broader field.

Sec. 6. (1) *α*. A relatively high degree, or amplitude if we may so speak, of neururgic emphasis within a neururgic pattern may be determined by a powerful stimulus reaching the nervous system from its environment: just as a big wave may be formed on the moderately agitated surface of a lake by the fall into the lake of a rock dislodged from its steep banks.

β. The direction of attention may be determined by the psychic emphasis due to the reception of a powerful stimulus from the environment. This being true we should expect to find, as we do, that on the whole sensations are the special states in connection with which insistent attention is peculiarly developed. While it is true that sensations can scarcely be said to be the most important objects of attention,[1] nevertheless it is true that no other presentations can be so continuously persistent in attention as sensations. A brilliant light, a powerful sound, a stinging pain, will tend to force attention to itself notwithstanding that other

[1] As a matter of fact percepts are the most important objects of attention for all of us. This is because they involve not only sensational elements, but also are developed in connection with wider activities than the mere sensations themselves. The movement of attention, which is usually considered under the name of association, consists to a very great extent of leaps from one percept to another, or from one percept to a modification of such percept. As Dr. William James says (*Psychology*, i. ch. xiv.), "association, so far as the word stands for an effect, is between things thought of; it is things, not ideas that are associated in the mind. We ought to talk of the association of objects, not of the association of ideas."

elements may have been in the "focus" when the emphatic stimulation was received. You could not attend to the substance of this chapter if a pistol was discharged close to your ear; you would have to attend to the sound.

Sec 7. (2) *α*. A relatively high degree of neururgic emphasis in a neururgic pattern may be determined by what we have spoken of in earlier chapters as the recurrence of neururgic patterns. It is to be noted that this condition distinctly involves what we may speak of as neururgic preparedness, or what with acknowledgments to Stout we may call preformed neururgic "dispositions." The old emphasis would not recur were not the broad neururgic pattern such that it regains what we speak of as its old form upon the recurrence of conditions similar to those before given.

β. If we recall what we have said of so-called revivals, or recurrent secondary presentations, and of their relation to primary presentations due to environmental stimulation, we see in connection with what has been said in the previous section that we should be led to expect to find attention often determined by what we are wont to call the "recurrence of presentations," that is to the appearance of new presentations determined in form by the previous existence of other presentations of closely related types. This is of course the most ordinary of our experiences. We sit quietly in the silence and darkness of the night, apart from the vivid stimuli from the environment which might force attention; yet still the condition of attention to one or another presentation continues; and usually the center of attention in such cases consists of secondary presentations or ideas rather than primary presentations or impressions, and these for the most part are what we recognize to be revivals of presentations which have appeared in the field of attention in the hours and days and years gone by.

It is very clear that attention due to "recurrence," of which we now speak, involves necessarily the existence of

what Stout calls " psychical dispositions " ; it involves what we may speak of as psychic preparedness. Unless this preparedness existed no such rise into the focus of attention of secondary presentations due to past presentations could occur. It becomes evident therefore that this preparedness is of the greatest importance in relation to the process of attention, as we shall see very distinctly when we take up our next point. Even when attention seems to be determined entirely by the psychic emphases due to the reception of powerful stimuli from the environment, some measure of preparedness must exist in the broad field of presentations of low degree of emphasis. The intense sensation must relate itself in some measure with the existing noetic pattern or it cannot be attended to. As Stout[1] says " sense impressions are capable of arousing attention if, and so far as, they are capable of exciting some preformed system of psychical dispositions, or of taking part in some pre-existing process which already involves the activity of such a system."

Sec. 8. (3) We find cases where attention upon a special psychic element arises primarily directly or indirectly as the result of stimuli reaching us from without, but where its fixation is due almost entirely to the preparedness of the psychic system, *i.e.* almost entirely to the existence of " psychical dispositions," or unemphasized noetic patterns ; and here we are dealing with cases where attention may be said to be due to assimilation. The striking of the clock in the adjoining room does not become prominent in attention in this hour of leisure : but were it to strike in my office on a day full of engagements it would certainly lead me to attend to the appointments I had for the hour to come. The phrase " Darwinian hypothesis " uttered by my friend in my hearing does not become the center of attention as I write these lines : but were I writing on the Emotions, the chances are that the phrase would seem to seize me, as it were,—

[1] *Analytical Psychology*, i. p. 187.

would become the center of my field of attention,—and I probably would stop this writing and ask my friend his opinion of Darwin's emotional theory as related to the James-Lange theory.

III

Sec. 9. (4) *a*. Finally, a high degree of neururgic emphasis in a part may be determined by some obscure influence from the mass of the nervous system with which this part, under the conditions we are considering, is directly or indirectly related. One who is watching a storm at sea will observe occasional high waves which shoot up into the air, apparently without relation to the prevailing wave patterns, and yet which must clearly be due to some obscure influence existing within the whole agitated wave surface. Our nervous systems are so related as to present a vast variety of "dispositions"; and it would be surprising indeed if some part of a given neururgic pattern were not at times emphasized by assimilation with underlying patterns within the broad systems which are too unemphatic to be discerned, the influence which emphasizes the activity of the part being due to the assimilation of its activity with some obscure and unobservable "disposition" existing within the mass of the nervous system.

β. The emphasis in attention is often determined by some obscure influence within the preeminent field of manifoldness, *i.e.* the field of inattention. Within this broad field there must exist psychical dispositions, within it must be developed noetic patterns, although these be so unemphatic that they do not appear as presentations. In the very fact that they are developed within this field of inattention in contrast with which presentations appear, the form of these unemphasized noetic patterns must be incapable of appearing as presentations: but if they thus exist they must be capable of acting to sustain the intensity of any special psychic

element with which they can assimilate ; and this will result in the enforcement of attention in special directions by influences from within that part of consciousness which cannot be given as a presentation, but which we designate as the field of inattention.[1]

But we have seen reason in the first book to hold that this field of inattention,—this broad field in which manifoldness is most markedly developed,—is the Self to which presentations are given ; the Self which is represented to us in states of self-consciousness in its simulacrum the empirical ego. We should therefore expect to find self-conscious experiences which indicate that the non-presentable Self often determines attention. This is in truth a most obvious fact ; for as Stout [2] says the " common sense view is that attention is the self-direction of the mind to an object." It is true that observation shows us many cases where attention appears to be determined entirely by the stimulations reaching us from the environment: but the judgment of " common sense " just mentioned surely shows at least that a vast proportion of cases of marked attention are appreciated as involving the action of what men call the self.

Sec. 10. It is not difficult to show, as will appear in Book III., that the Self must always be involved in every act of attention : for if the whole of consciousness is a system of interrelated psychic systems no partial activity can fail to affect, or to be affected by, the general noetic condition of the mass of the system : and no emphasis of a psychic part can appear without some enforcement from the field of inattention, if the psychic part assimilates with the noetic

[1] Confer Stout, *Analytical Psychology*, i. p. 183. "The systematic unity of the attention process depends upon the presence of the psychic fringe. The systematic complexity depends upon the tendency of this or that explicit part of an implicitly apprehended whole to coordinate itself simultaneously or successively with other parts or aspects, according to the specific plan of combination characteristic of the whole."

[2] *Op. cit.* i. p. 180.

condition of this field at the moment in question ; or without some inhibition in case it does not so assimilate. In other words, no psychic part can appear in attention without involving some reaction from the Self.[1] And this implies that although, as we shall presently see, voluntary attention is a special form of the attention-experience, nevertheless any attempt to separate in any sharp and distinct way voluntary from involuntary attention is inaccurate and deceptive.[2]

[1] It will be evident to the reader that I thus uphold the view that the Self may actually at times act to increase the intensity of a given presentation through the process of assimilation, although often the effect of increase of intensity is due practically to a maintenance of a given intensity while other intensities wane.

In his *Groundwork of Psychology* (p. 57) Stout tells us that the notion that attention intensifies sensation is due "to a confusion between intensity and clearness or distinctness. If, in attending, we intensify sensation at all, we do so only within narrow limits. Otherwise we should often defeat our own purpose by altering the very object which we are interested in knowing. If I want to know precisely how loud a sound is or how bright a color is, I attend to it. But this procedure would stultify itself if the very act of attending made the sound louder or the color brighter. As a matter of fact, we can follow with increasing attention the gradual fading away of a sound into silence."

I agree that the difficulty here referred to is due "to a confusion between intensity and clearness or distinctness" as Stout says ; and in this connection would refer the reader to the discussion of Chap. VIII. Sec. 4. But, as I there attempt to show, clearness and distinctness are merely our names for special types of intensity. I agree that the limits within which sensations are intensified are usually narrow. But I would hold that voluntary attention may, and actually often does, alter the very object we are interested in knowing, and that great care is necessary if we are to avoid defeating our own purpose. It is true that "we can follow with increasing attention the gradual fading away of a sound into silence," but I think it certain that the fading would be much more rapid did we not attend.

[2] Confer Pillsbury, *op. cit.* p. 311. Although Dr. James makes use of this distinction (*Psychology*, i. pp. 416 ff.), he practically acknowledges its unimportance where he speaks (*Briefer Course*, p. 221) of the "perpetual presence of selective attention" as a "patent fact."

As we have seen in Book I., the very fact that this reaction by the Self occurs involves often the rise of a state of self-consciousness in which there appears as a presentation a broad unemphasized undifferentiable psychic mass which we describe as the empirical ego, in relation to which the most emphatic element appears as an object. Now the self-conscious direction of attention by the empirical ego is what is recognized as voluntary attention. And here we find before us the consideration of the very essence of conation or will. "To will a given act," says Royce,[1] "is to think *attentively* of that act to the exclusion or neglect of the representation or imagining of any and all other acts." And if this is true, then all volition is found to be statable in terms of that form of attention which we call voluntary attention.

And it appears also, as we have seen, that all attention must be conative, as each act of attention is in some measure determined by the action of that part of the psychic system that is apart from the presentation attended to. This conative aspect of attention is of course not always explicit, is in fact usually merely implicit: whenever it is explicit we have the experience of the active empirical ego maintaining attention.

It must be very evident to all who study their self-conscious states that in all cases where I am able to say that I attend the empirical ego acts to assimilate compatible, and fails to assimilate incompatible, elements of the object: that is to say in consequence of its own inherent nature it acts to produce the emphasis of the intensity of assimilable elements within the object; it selects, as we say, from the mass of elements contained in the objects those with which its own nature can join to produce the element's emphasis, and thus forces them into attention.

As we have seen, whenever the action of the empirical ego

[1] *Outline of Psychology*, p. 369. Italics mine.

appears explicitly through its welcome of one and its rejection of the other of two incompatible presentations, then we have what is clearly marked voluntary action, and so far as this relates to attention we have clearly marked voluntary attention. If the distinction between voluntary and involuntary attention is to be maintained it must be between attention in which the will act is explicitly involved, and attention in which it is not.

While it is of course true that some attention is experienced as *explicitly* determined by the empirical ego in an act of will, and that some is not ; nevertheless this fact must not be interpreted to mean that there is no self-conscious conation except in a clearly marked act of choice. It is true indeed that we may if we choose study attention as non-conative, as involuntary, as apart from its aspect as distinctly affected by the empirical ego ; but this is because in many experiences the empirical ego is not attended to at all, or because it but slightly affects the object, or is overwhelmed as it were by the power, and unavoidableness, and ungovernableness, of the stimuli which for the moment seem alone to determine attention. It seems clear however that just so far as one observes the empirical ego at all in attention in connection with its object, just so far is one able to note, if he use care, the process of reaction of the empirical ego upon its object, even though it appear at times to struggle but weakly, and perhaps in vain, to govern and guide the stream forced upon it from without itself. But it must be evident to the reader that we are here touching upon ground which in some aspects will be more properly considered at length in Book III., where we consider the nature of the Self.

IV

Sec. 11. It may be well here to refer to certain problems relating to attention upon which the views above considered seem to have a bearing.

It has often been noted that it is impossible to maintain attention fixed for an indefinite period upon a specific presentation even by the greatest effort. This is usually treated as a phenomena of what is explicitly recognized as voluntary attention: but as a matter of fact we are here dealing with a general phenomena of all forms of attention.

As we have seen in Chapter VIII., an intensity cannot be appreciated as maintained of equal degree in successive moments unless the elemental intensity is actually increased. But of course this increase of elemental intensity cannot continue indefinitely: an intensity cannot then appear as marked in relation to the broad psychic field for an indefinite time, and therefore attention even when it is of the so-called "involuntary" type cannot be long maintained. For this reason in our ordinary life attention is constantly shifting; even where an intense presentation is given to which our attention is compelled we soon find ourselves attending to other matters. When we first enter a boiler shop we can pay attention to nothing but the noise; but presently we find ourselves attending to the movements of the mechanics and machinery as though there were no noise.

The same situation is discovered in cases of clear voluntary attention, and these attract our notice because of the sense of effort accompanying them. The attempt to maintain attention means the effort of the psychic system to maintain the elemental intensity. But as we have seen the whole psychic system is rapidly affected by the intense presentation; and after a relatively short time therefore even the action of the system itself will fail to maintain the elemental intensity as an object of attention in contrast with the broad psychic field which has itself in a measure gained the attributes of the presentation.

On the physical side this means that the increased activity of the stimulated parts has been communicated to the whole neururgic system, so that the highly active part no longer

stands in contrast with the whole neururgic system which (when we appreciate the act of voluntary attention) tends to assimilate it.

Sec. 12. If the view above stated is correct there must be an indefinite number of forms of attention. Attention is not a special mental state which might involve the action of certain definite brain tracts;[1] it is a general process which may appear in an indefinite number and variety of forms, which involve activity in an indefinite number and variety of brain tracts. This carries with it a rejection of the notion that there can be a "centre of attention." As Stout says[2] "The nervous correllate of attention is not to be found in the excitation of this or that portion of nervous matter, but in a certain complex form of the nervous process."

Attention may vary therefore in the nature of the presentations attended to. We may attend to sensations, to percepts, to concepts, to emotional states, and to conative states, to pleasure—pain and other qualifications of various states. The intensity may be anywhere within the whole field of presentations; and the broad psychic field with which this intensity is related may in like manner vary as to its content.

This variation of the related field is important in the fact that it implies that disparate intense partial presentations will seldom bear close relations to the same fields; and this would lead us to expect that the existence of attention to one set of partial presentations would in general make difficult the shifting of attention to a disparate set of partial presentations. This we find to be the case. If we are deep in

[1] The processes of "fixation" of which we speak below may well involve action in certain special brain tracts: but these processes of fixation are not of the essence of attention.

[2] *Op. cit.* 1, 201. Confer also in this connection McDougall's interesting hypotheses (*Mind*, N.S. 43 and 47) in which he explains attention as a general process having its seat in the "synapses."

thought, for instance, sensational effects do not easily "attract our attention"; and the same fact appears throughout our experience.

Sec. 13. In connection with what we have just said it is important to note again (confer Sec. 2) that attention may be divided; that there may be more than one centre of intensity related to the same broad psychic field. Furthermore, as Külpe[1] says "the greater the range of attention, the lower is the degree of consciousness attached to any individual content: while *vice versa*, the number of the objects grasped by attention decreases, as concentration upon any one of them increases." And this too we find to accord with our view: for the larger the number of points of emphasis in a neururgic pattern, the less clearly will any one emphasis stand in contrast from its related mass: and correspondingly the more points of emphasis there are in a given noetic pattern, the less will any one of them gain that emphasis which is necessary if we appreciate distinctly its relation with the mass of the consciousness of the moment: the clearest differentiation can only appear when only one marked presentative point appears in the field of attention, so that every thing but this clearly discriminated point fuses into a mass which stands in contrast with it.

All this implies that attention may be more or less vivid in relation to the condition of consciousness in a given moment. But it implies also a further differentiation of attention due to the grade of consciousness, if we may so speak, existing at the time the specific emphasis appears. The bark of the dog, for instance, attracts more attention when I am just aroused from sleep, than it does during the existence of my active waking consciousness.

Sec. 14. It has been maintained by many modern psychologists that our experience in attention is determined entirely by the muscular sensations involved in the process of the

[1] "The Problem of Attention," *Monist*, Oct. 1902, p. 57.

fixation of attention: and even so cautious a writer as Mr. James Sully[1] finds himself led to hold that, in cases of sensational attention at least, muscular sensation is "the main determinant factor in the process"; although he admits that other factors are involved. To one who approaches this subject from our standpoint this position appears to be an unwarranted one; for it is clear that if attention is a general process it is not to be identified with any special emphasis such as that given in sensations accompanying the process of fixation.

It is to be granted that when I attend to an object in the outer world the muscular sensations are the most emphatic elements caught as it were as I attempt to analyse my experience, some of these muscular sensations being related to the bodily position, some to the focusing of the eye and to arrangements of the other sense organs which aid the clearest apprehension of the sensational experiences which are given, some to the inhibitive muscular strains involved in the tendency to avoid a loss of this concentration. This may be granted however without holding that these muscular sensations are of the essence of attention, or even that they are of fundamental import. For when, for instance, I pay close attention, as I may well do, to my intestinal experiences I find much less reason to make so much of the muscular sensational elements of fixation in the experience of attention. And the weakness of the theory becomes evident when we consider that the cases of marked sensational attention, which being subject to experiment are relied upon by those who uphold this theory, are all cases of distinctly voluntary attention; and that, as Stout[2] points out, the process of fixation itself involves volitional experience of the same type as that involved in our willing to move the arm, or to perform any bodily action. This volitional control of bodily action itself involves volitional attention, as we have already seen

[1] *Human Mind*, 1, 149. [2] *Op. cit.* 1, 243.

above; and this shows us clearly that our volitional control of attention is of deeper import than the processes of fixation. Those who have defended the view in question surely forget to study carefully the very large proportion of our less emphatic states of attention which are not concerned with the discrimination of sensational experiences.

The whole matter is put in a nutshell by Stout[1] as follows: "The immediate effect produced by these sensory adjustments is fairly comparable with the effect produced by other devices for increasing our sensibility, such, *e.g.* as the use of a magnifying glass. From this point of view we have as much justification for regarding the putting on of a pair of spectacles as an attention process, as we have for regarding ocular adjustment in this way. It is broadly true that we rarely accommodate our sense organs for the reception of impressions from an object unless we are attending to that object. But this fact seems fairly explicable on our general view of sensory accommodation as an arrangement for intensifying and maintaining attention, and not as belonging to the essence of the attention process itself."

Sec. 15. All the above facts lead us to emphasize the relativity of attention. Attention consists in the relation of a point or points of emphasis with the contradistinguished mass of consciousness. The number of these points of emphasis may vary, and *pari passu* the degree of attention will vary. The grade of the consciousness of the moment may also vary, if we may so speak, and again we shall have variations in the form of attention given.

From a certain point of view it may be said that attention is relative in another sense, viz. that we would never experience attention but for changes in the form of consciousness. Given perfectly stable conditions, however high the grade of neural and noetic activity may be, we should soon find our neururgic and noetic patterns fading off into a dead level.

[1] *Op. cit.* 1, 204 ff.

The emphases in the neururgic parts would disappear, and attention would disappear from consciousness. This however would not by any means imply the disappearance of consciousness itself: it would merely mean that the field of attention had faded away, and that the field of inattention had become pervasive and paramount. Some reader may well say that such a psychic state as that above described would not be what we men would usually call a state of consciousness at all: and this is true, for we are able to consider and discuss only those states of consciousness in which some measure of attention appears. But of this objection we need not here speak at length, for we have already seen reason to judge that it is absurd to hold that our field of attention is the whole of consciousness. Yet it is just this view that is implicitly maintained by those who uphold the doctrine of the so-called "relativity of consciousness," so far as that doctrine involves the notion that the essence of consciousness lies in the change from one psychic state to another, and the appreciation of the contrast between the two states involved. What they thus speak of as the relativity of consciousness should in our view be spoken of as one phase of the relativity of attention. That attention is relative may be held to be an indubitable fact, but this without involving the notion that a psychic state cannot exist apart from the field of attention, as is sometimes implied by those who enlarge upon the doctrine here considered. All other forms of this doctrine seem to be founded upon the observed fact that under a prolonged stimulus of even very high intensity what is usually called consciousness, but what should properly be called attention, is gradually lost, and this has been interpreted to mean that change is necessary to the existence of, and is the essence of, consciousness.[1] But as Prof. James truly says, "if we physically could get a feeling that should last eternally unchanged" there is no proof "that it would

[1] Confer Prof. James, *Mind*, 37, p. 38.

not be felt as long as it lasted and felt for just what it is, all the time."

To explain the "relativity of consciousness" as here viewed therefore is to explain, in reference to our general view, the fact that a presentation due to a prolonged stimulus of high relative intensity disappears; and this has already been shown to be a necessary result of the fact that consciousness is the coincident of the activity of a neural system, which after being stimulated to high degree in a part (coincident with a presentation attended to) acquires gradually a higher grade of activity as a whole, so that the activity of the part no longer stands apart from the activity of the whole system, and the coincident partial psychic element is no longer held in attention as a presentation to the broad psychic system, *i.e.* the Self.

V. The Movement of Attention. Association.

Sec. 16. If human consciousness was of such nature that all forms of attention were determined by the action of stimuli upon our physical organs, the movement of attention would present no problem of interest even for a psychologist from another sphere who might be supposed to have access to our inner experiences; for under such conditions these experiences would consist of successions of complex forms of attention, corresponding with definite successions of objective situations, all of which would bear certain relations so explicit, so inherent, and so self explanatory, that even the spirit from the other sphere would scarcely pause to consider them.

Even if our spirit agreed that trains of secondary presentations exist in connection with such primary presentations as we have described, these secondary trains, when appearing apart from primary presentations as they do, would not be likely

to be thought to present a serious problem provided they appeared always to maintain in attention the same order and relations that are observable in connection with our primary presentations. But as a matter of fact the movement of attention to these secondary presentations very frequently does not maintain the order and relations observable in the stream of our primary presentations. When, so far as this is possible, we exclude primary trains, and find attention in the main occupied with secondary presentations or revivals only, then we cannot but note that these secondary presentations often fail to display the recognized order and relations which their corresponding primary presentations displayed; and beyond this that secondary presentations often seem to arise out of all relation with all others which have preceded, or which exist together with them. Moreover, these apparently unrelated secondary presentations have a way of forcing our attention, of intruding themselves into our trains of successive primary presentations. This impression of violet and orange color, the noise of thunder, find themselves pressed out of attention, perhaps by the *thought* of a friend who is ill in a foreign clime.

Thus has the problem of the movement of attention been forced upon psychologists. It is a problem which though interesting and important in itself is not of great moment in connection with the study of the inner nature of presentations with which we are here concerned; it is a problem of genesis rather than of analysis. This serves to account for the subordinate place and the brief consideration here given to this subject.

But long ago a certain band of psychologists, in their effort to account for the observed facts, hit upon what they thought to be an explanation which involved an atomistic theory of consciousness; and for them the problem became necessarily involved with the problem of analysis. This explanation was developed into what we call the doctrine of

the association of ideas, which led to the founding and growth of the associational school, which notwithstanding its weaknesses has given to psychology an important record of introspective experience, and an enlightenment in regard to the nature of consciousness, the value of which it is difficult for us to over-estimate.

Sec. 17. Although we approach the subject from the standpoint of opponents of psychic atomism it may be well to consider for a moment the points in relation to the movement of attention made by the associationists. Having observed that certain orders of secondary presentations, or images or ideas, followed the orders of successive primary presentations or impressions; and having assumed that these secondary presentations or ideas are copies of primary presentations or impressions; they laid down laws which aimed to explain the appearance of the apparently unrelated secondary presentations, of which we have above spoken, in terms which would harmonize their occurrence with our experience of the succession of primary presentations; and they thus gave us the laws of association by contiguity, by similarity, by contrast, by cause and effect, etc., etc. And, as we hold, they went much farther than they were warranted in going in the attempt to explain, not the appearance in attention of secondary presentations, but the very nature of these presentations themselves, claiming them to result from a *quasi* physical, or *quasi* chemical, combination of psychic atoms according to these laws of association which they believed they had discovered.

With this atomistic doctrine, which we altogether reject, we have no concern here: but the laws of association themselves which were thus enunciated may well be considered and if possible explained in terms of our conception of attention, if for no other reason than that our psychological masters of the past have made so much of them.

Sec. 18. As we have already stated the mass of our

secondary presentations appear in an order which corresponds to a noticeable degree with the order in which their related primary presentations originally appeared. The postman whistles, the maid appears in my library, the letters are placed in my hand, are opened and read, and I write various replies: here is a series of primary presentations. If, some hours later, in the silence of the night, I think of the postman, I am very likely to think in succession of his whistling, of the maid handing me the letters, of my reading them, and of the contents of the letters and my replies: here is a series of secondary presentations following in the same order in which the related primary presentations appeared.

Now, as I have suggested above, did this always happen we would probably not consider that the movement of attention involved a problem of importance. But it often very evidently does not happen: and if we examine the facts closely we find that actually it seldom happens. We find perhaps that when we come to the thought of the letters, it is the thought of the third letter only that appears in attention; and that the thought of reading the others does not follow; but that the thought of the answer written in the third letter does follow. Or if the letter was an important one we note perhaps the sudden ebullition of a thought out of all relation with the series of primary presentations of the morning; "how stupid of me," I perhaps say to myself, "John will entirely misunderstand my answer; I must write again to him to-morrow."

The consideration of such occurrences leads us to see that there is (1st) a general tendency on the part of our series of revived secondary presentations to follow the order of the corresponding primary presentations: and (2nd) as evidently many a striking exception to this rule.

The associationists traced laws in relation to this second fact and attempted by means of these laws to explain the first fact. It will serve our purpose best to attempt to explain

the first fact, and then to ask how far this explanation accounts for the second fact.

It is generally agreed by the best of our modern psychologists[1] that all forms of association are reducible to the laws of contiguity and similarity; and we may therefore limit our brief consideration to these two laws.

Sec. 19. As we have argued in Book I. it seems safe to say that each series of primary presentations involves a series of secondary presentations, the bond between the members of which is an identity of noetic elements within the body of the noetic systems involved. If this is true then there must always be a series of successive secondary presentations involved with, and running parallel with, each series of successive primary presentations, the successive noetic patterns involved being bound together by common psychic elements. It is natural therefore that we find that, if for any reason one member of this successive series of secondary presentations arises apart from the existence of its corresponding primary presentation, the connected secondary presentations should follow in the order in which they originally existed parallel with the series of successive primary presentations. It would appear thus that we do not speak accurately when we say that the series of secondary presentations follows the order of its corresponding series of primary presentations. Strictly speaking we should say that a series of secondary presentations is revived in an order which was already given in the secondary presentations which were involved with the original series of primary presentations.

It seems clear then that we should expect to find, what we do find, a general tendency on the part of our series of revived secondary presentations to follow the order of corresponding series of primary presentations.

Sec. 20. But as we have seen there are many cases which

[1] Confer *e.g.* Höffding, *Outlines of Psychology*, p. 157 of English translation. Also Royce, *Outlines of Psychology*, p. 210.

appear as marked exceptions to this rule: and this is explicable when we consider that certain of the secondary series, which accompany the primary series, must involve relations with "psychical dispositions" of more breadth and importance, and that others must involve relations with "psychical dispositions" of less breadth and importance. Furthermore there are likely to have been other successions of secondary presentations, involving other "sets" of the psychic system as a whole, in which some part of the newly appearing succession of secondary presentations may have also been a part: and if this is true this part of the newly appearing series must therefore be related with two or more "psychical dispositions"; and if the "psychical disposition" related to this element in a past series is broader and more important than the "psychical disposition" related to this element in the newly appearing series, evidently there will be every reason to expect a shifting of attention in the direction of the more important "psychical disposition," and away from the series corresponding with that originally involved with the primary series. Thus, to return to our example above, it is easy to explain how attention to my reply to the third letter leads, not to attention to the contents of the fourth letter, but to attention again to the contents of the third letter, and to the effects upon my correspondent of the reply I have made, and to my thought of a correction of the wrong impression my reply is likely to have given.

Sec. 21. Turning now to the two laws of association by contiguity and by similarity which we here consider, we may note in the first place that they are on different planes, as it were. When we say that ideas A and B become successively the centres of attention because they are similar, we are evidently dealing with pure introspection; we are expressing the fact that in connection with the succession as viewed in reflection we note the similarity "sense of relation." When on the other hand we say that ideas C and D become succes-

sively the centres of attention because the impressions to which they are related are simultaneous or successive, and enunciate the law of contiguity, we clearly have in mind conditions in the world of objects, and not the experience which we describe as introspective.[1]

We shall attempt to express the facts which are covered by both these laws on one plane, so to speak, viz. in terms of our introspective experience.

Sec. 22. Whenever a series of secondary presentations which is being given in attention is broken into by a secondary presentation which does not appear to be directly related to this series, the associationists have been accustomed to explain the shifting of attention in subjective terms as due to the law of similarity, provided the intruding presentation seemed similar to any presentation of the series broken into. On the other hand they, turning to an objective view, have been accustomed to explain this shifting of the attention as due to association by contiguity, provided any part of the first

[1] In his *Human Mind* (i. pp. 334 ff.) James Sully well says: "Suggestion by similarity and suggestion by contiguity—answer to two perfectly distinct directions of the reproductive process. The latter . . . tends to a reinstatement of experiential wholes, or time-connected aggregates; in other words to a reproduction along with each presentative element of its experiential context. The former, on the other hand, brings together elements of experience not necessarily connected in time at all, but lying, it may be, very remote in the time order." . . . "Associative (contiguous) reproduction is externally conditioned, viz. by the time-proximity of the original presentations, whereas assimilative reproduction is internally conditioned by the psychological (or psycho-physical) relation of the presentation."

Mr. Sully, as his readers will note, goes so far as to say that suggestion by similarity is no association at all: and he is justified in this if we use the word association to refer to a *quasi* mechanical process, as the originators of the associational doctrines surely did. It is not worth our while however to stop to enlarge upon this aspect of the subject, for our aim here is not to uphold or oppose a doctrine of the association of ideas, but to explain in our own terms the movement of attention which has been expressed in the formulation of these laws.

mentioned series can be discovered to have been related in the past to an original series in which belonged the primary presentation corresponding with the intruding secondary presentation. But it is apparent as we have seen that the intrusion of such presentations is easily explicable *and also in subjective terms*, as due to movements of attention in series dependent upon the relation of presentations to diverse "psychical dispositions." It is equally clear however, if we look at these cases of contiguity thus subjectively, that the real bond between the successive presentations is a bond of identity in parts of the connected presentations, even though this be indiscernible. If this bond of identity between the two successive presentations had been explicit and clear, it would certainly have involved a recognition of a *similarity* between the two successive presentations.

Cases of so-called association by similarity would therefore seem to be cases of the movement of attention which involve an explicit introspective appreciation of the bond of identity which *always* unites the two successive secondary presentations.

Cases of so-called association by contiguity on the other hand would seem to be cases of the movement of attention which do not involve an explicit introspective appreciation of this bond of identity which unites the two secondarv presentations, but which do involve a recognition of the objective fact that a previous series of presentations has corresponded in its order with the newly appearing series, this fact, as we have just seen, involving an implicit relation of similarity, even though it be unrecognized.

In those cases of the movement of attention where presentations apparently unrelated to any series arise in attention, cases which involve apparently neither similarity nor contiguity, the associationists were wont to assume that implicit similarity and contiguity must obtain. In our view every movement of attention involves the conditions which when

explicit yield the recognition of both similarity and contiguity. The cases here considered therefore may be described as cases of non-explicit, similarity and contiguity at the same time. For there must be a bond of identity between the successive presentations of a series whether this is recognized or not, and if we look at the matter objectively we see that this bond involves contiguity. At the same time if we consider these cases subjectively we see that this bond of identity involves the occurrence, in a form too dim to be recognized, of that special "sense of relation" which if emphatic enough would lead to a recognition of similarity.

In the cases before us we fail to observe either a similarity, or a contiguity based upon the identity of elements which this similarity itself involves. But for all that the bond of identity of elements inherent in the successive presentations must exist as the successive noetic patterns overlap; for, but for this overlapping the second pattern would not appear to succeed the one preceding it. And in this overlapping we have the basis of the objective association by contiguity.

CHAPTER XV

A. REALNESS AND MANIFOLDNESS. THE OBJECT-SUBJECT RELATION. BELIEF

B. ATTENTION AND THE OBJECT-SUBJECT RELATION

A. Realness and Manifoldness. The Object-Subject Relation. Belief

I

Sec. 1. We have seen in Chapter XIII. that a direct relation exists between the emphasis of intensity and the emphasis of realness in connection with a given presentation. If, as we have seen in the preceding chapter, we have in attention-experience the appreciation of a special sense of relation given by the correlation of the intensity sense of relation and the manifoldness sense of relation, as displayed in conjunction within the same noetic pattern; then we should expect to note that a special sense of relation is developed by the correlation of the realness sense of relation developed in connection with a special part of the noetic pattern, and the manifoldness sense of relation developed in connection with the presented broad noetic system apart from the very real part.

This special sense of relation would be distinguished in its most marked forms by the special prominence of a realness in contrast with the characteristics of the rest of the psychic

system, and would be likely to be given with especial forcefulness in connection with powerful impressions upon us from our environment in connection with which, as we have seen, a high degree of realness is given.

When we ask ourselves whether there is any broad characteristic of this nature especially given in connection with impressions upon us from our environment, we at once note that the quality of objectiveness is thus given, a quality which is clearly coupled with a sense of realness, and which is attributed especially to those complex impressional presentations that have spatial characteristics, and which we describe as "objects in the outer world." This special objective quality we however acknowledge to be not limited to these "objects in the outer world," in the very fact that we commonly speak of "objects of attention," quite within the field of non-object-in-the-world presentations.

But if we consider the existing noetic pattern as a whole we note that as in attention the marked intensity of the focus stands over against the manifoldness of the field of inattention, so here the object in which so high a degree of realness is given stands over against a broad field in which manifoldness is most marked, and which we call the subject. But the field in which manifoldness is pre-eminent is the field of inattention, and we are prepared therefore to find this "subject" distinctly identified with the Self, or with that simulacrum of the Self which we call the empirical ego.

Thus as the correlation of Intensity and Manifoldness gives us the relation which we describe as Attention, so here the correlation of Realness and Manifoldness gives us the Object-Subject relation.[1]

The object-subject relation itself is given as a special form

[1] The reader will notice that the form of this chapter follows closely that of the chapter in which we consider the nature of Attention. That this is possible shows clearly the close similarity between attention and the object-subject relation.

of experience. It involves the existence of a certain definite relation between the elements of consciousness, which relation so far as it appears as a presentation must necessarily involve the existence of a differentiation of consciousness. The object-subject recognition involves the existence of a special "sense of relation," which when appreciated as belonging to a given complex presentation leads us to describe this presentation as one which involves self-consciousness.

During a large part of our lives our experience consists merely of the presentations which display a high degree of realness, no object-subject relation being appreciable; so when this object-subject relation begins to be appreciated we naturally find an emphasis of the object in which marked realness inheres, rather than of the subject. In such cases the major emphases display explicitly a quality which leads us to speak of them as objects, while their relation to a subject upon which this objectiveness depends is still altogether unemphatic and implicit. This quality of objectiveness to be sure exists only as attached to part of a complex noetic pattern, it appears only as it stands in relation to another special quality which is attached to the remainder of the noetic pattern, which quality when explicit gives this other part of the noetic pattern the characteristic which leads us to speak of it as subjective.

As we have already seen in Book I. the part of a noetic pattern which stands in contradistinction from the emphasis is the unemphatic noetic mass in connection with which manifoldness is highly developed,—the field of inattention,—the Self. The special subjective qualification which brings the objectiveness of the emphasis into relief remains at times entirely within this Self, and is implicit rather than explicit, even as the Self is in its very nature non-presentable: the subjectiveness is for the most part "felt," as we say, rather than explicitly recognized.

But under certain conditions this subjectiveness may

become explicit, and it is then that we speak of the whole experience as a state of self-consciousness. When we are clearly self-conscious the noetic emphasis consists of an empirical ego (which we hold to be a simulacrum of the Self) with which the object is distinctly related. The noetic pattern thus displays a double emphasis in which appears both the empirical ego and its object.

Now the whole of this duplex emphasis as it appears in reflection has the quality of objectiveness in itself as contrasted with the implicit subjectiveness of the Self: not only is the object which is related with the empirical ego an "object of attention" as we say, but the empirical ego itself is also an "object of attention." Nevertheless within this totality in which objectiveness is explicit there appears a special enhancement of the objectiveness quality in connection with the object related to the empirical ego, and in contrast therewith a special admixture of the subjectiveness quality in connection with the empirical ego itself. Thus while the whole of the duplex emphasis of the moment of self-consciousness is objectified in attention, nevertheless the empirical ego appears as subjectively colored, and as thus standing over against the object related with the empirical ego, to which is attached a very marked measure of objectivity.

Sec. 2. Marked manifoldness and lack of realness have been found in an earlier chapter to vary directly. It is apparent therefore that in thus identifying the object-subject relation with the relation between a partial presentation which displays marked realness, and a presentative field in which marked manifoldness is developed we are practically asserting that a state of relative unrealness attaches to the field of inattention,—*i.e.* to the Self, so far as this is presentatively given in the empirical ego which is a simulacrum of the Self. This at first sight does not seem clearly true, for the empirical ego *when considered in itself* seems usually most real. But when we attribute unrealness to the empirical ego we are not

dealing with cases where the empirical ego is considered in itself. Where the object-subject relation becomes explicit in cases of distinct self-consciousness, the empirical ego is not thus considered in itself; and it is only under such conditions that we place the realness of the object in contra-distinction with the unrealness of the subject. This relative unrealness of the subject is to be sure usually implicit only; but that it occasionally becomes explicit is seen in the fact that in every day discourse we have come to use the word "subjective" as the equivalent of "merely imaginary" and "unreal." When, for instance, the moon rising on the horizon seems enormously large in relation to its usual appearance we appreciate that this apparent change of size is unreal, and we ascribe the illusion at once to some "subjective" interpretation, the characteristic of relative unrealness being thus implicitly attached to the subject or empirical ego.[1]

II

Sec. 3. It appears thus that we have in the object-subject relation the appreciation of a combinational sense of relation due to the coincident effectiveness of the realness and manifoldness senses of relation.

If where the object-subject relation is distinctly marked the presentative field consists of a relatively broad field within which some special part displays an emphatic realness which contrasts with the less marked realness of the rest of the field: then evidently without the existence of this broader field of low degree of emphasis the object-subject relation cannot exist. A relatively simple and very real elementary psychic emphasis might exist as such, but unless the broader field of less emphasis to which it can be related also exists the object-subject relation cannot be given as a presentation.

[1] Confer Book III. Appendix B, Sec. 7 for a fuller consideration of this point.

Thus it is that in a large proportion of moments of experience, when our presentations are those of vivid intensity due to stimulation from our environment and are exceedingly real, the object-subject relation is not appreciated at all: consciousness seems to be but a succession of marked presentations: *e.g.* this running horse, the man in the road, the shriek of some other man, the leap of the man in danger.

On the other hand in all situations that we are able to study with care in reflection the broad field does exist, and more or less explicitly the object-subject relation appears.

Sec. 4. Assuming then the existence of a more or less broad field of less emphatic presentations we may now consider the conditions which favor the appearance of the specially real psychic element which is brought into relation with this broader field; and here we shall find, as we should expect to find, a correspondence with the conditions of the appearance of attention as the result of the extreme emphasis of an intensity, as referred to in Chapter XIV.

The appearance of the object-subject relation may be determined by a stimulus from the environment. A brilliant light, a powerful sound, a stinging pain, all of which become emphatic and very real, tend in our wide awake states to appear as objective to us when we find ourselves aware of their relation to our "selves." "Recurrent" presentations as we have seen also tend to become very real, and they likewise tend to be objectified.[1]

But, as we have seen in Chapter XIV. that the action of the psychic system must always in some degree influence the

[1] Confer my Address in the Department of Aesthetics; St. Louis Congress of Arts and Sciences, vol. i. Our standards of Beauty, Goodness, and Validity or Truth, are gained by a sort of sublimation of our appreciation of the realness within the great groups of our presentations, impressional, reactive, and coordinative respectively; and, as we know, an objective qualification is attributed to them not only by philosophers of the Platonic type, but by the common man who refuses to believe that no objective standards of the True, the Good, and the Beautiful exist.

nature of attention, so we should hold that it must always in some measure influence the object-subject relation through its influence upon presentative stability or realness. This influence may be more or less explicit, and in certain cases may be entirely overlooked, as is especially the case where impressions reaching us from the environment are powerful. Thus it happens that sensational-perceptual presentations gain an objectiveness that seems quite independent of ourselves, just as the attention given to them seems to be forced upon us. Objects in the outer world for instance are given in a series of presentations which are characterized by this special degree of realness which leads us to overlook the influence of the psychic system so completely that our concept of the objective world comes to have as part of its connotation the qualification that the object-in-the-outer-world presentations have a realness quite independent of ourselves.

But we have seen that there is no case in which some measure of influence of the system upon the nature of the presentation does not exist; and if we consider the matter with care we find that in many cases, where at first the realness of the object seems quite independent of our attitude towards it, we are able to recognize that the realness and objectiveness, although primarily arising directly or indirectly as the result of stimuli reaching us from the environment, is due almost entirely to the preparedness of the psychic system, almost entirely to the existence of "psychical dispositions."

III

Sec. 5. This determination of the rise of the object-subject relation, through an added realness given to the emphatic presentation as the result of psychic assimilation, is so important a matter that I emphasize it by treating it here in a separate division of this chapter.

As assimilation by the whole psychic system maintains the

intensity of a given partial presentation and thus gives us the self-conscious direction of attention by the empirical ego in what we call voluntary attention: so the assimilation of a given presentation by the whole psychic system might be expected to maintain the realness of a given partial presentation and give us the self-conscious direction by the empirical ego of the object-subject relation.

As consciousness in any moment is a vastly complex system of minor psychic systems in which thoroughgoing reciprocal reactions between the elementary parts always prevail, it is clear not only that the realness of a given presentation must always affect the broad psychic field in which manifoldness is preeminent, *i.e.* the field of inattention, *i.e.* the Self; but also on the other hand that the realness of a given presentation must always be affected by the nature of this field of inattention, the Self. We must expect then to find ourselves appreciating the rise out of this field of inattention of an influence which affects the realness of any given presentation. If the given presentation assimilates with the noetic pattern developed within the body of the psychic system, then this presentation will tend to gain stability,—to gain realness; if, on the other hand it does not thus assimilate with the noetic pattern developed within the body of the psychic system, then it will tend to lose its stability,—will tend to lose realness.

Of the efficiency of the non-presentable Self in relation to realness and its resultant objectiveness we speak in Book III. But here we cannot but take cognizance of the fact that whenever a presentation is given in which appears a mass of this broad psychic system to which a psychic increment so to speak accrues, then we have the experience of an empirical ego with which the object is contrasted: and it would seem clear that when this action of the Self is explicit we must experience the action of the simulacrum of the Self, *i.e.* of the empirical ego, upon the realness of a presentation, which

when explicit and clear we should expect to yield an experience of a special state in which we recognize this action of the empirical ego as effective in establishing this realness and its resultant objectiveness. This state is what we call Belief.[1]

In the act of belief, the realness of a presentation being established the presentation gains a distinct objectiveness as it stands in contradistinction from the subject to which it appeals. When I say I believe I mean to say that this or that is real for me. Belief thus may be defined as the recognition of the objective realness of a special presentation, in conjunction with the realization that this realness results from the reaction of the mass of the psychic system upon the presentation, this realness being thus established because the presentation assimilates with the noetic pattern existing at the moment in the mass of the system. We thus find quite natural the fact that this recognition of realness in belief, whenever it is in any measure clear, leads to the every day assertion that the state of belief is closely related to the empirical ego, and in fact comes from it: for when belief is clear we are always led to say *I* believe this, *i.e. I* recognize this to be real.

The reader will recall that in the preceding chapter we showed that all attention is conative; although this conative aspect of attention becomes explicit only in special cases of clear self-consciousness which we describe as voluntary attention. So we are prepared to note that all established realness in the object-subject relation has a conative connotation, the realness of the presentation being always determined to some extent by the action of the Self, which however is often quite implicit; only when it becomes explicit do we gain a clear

[1] It is to be noted that certain psychologists use the word Judgment as I would use Belief. Brentano thus used the word, and Dr. G. F. Stout has followed him (confer his *Analytical Psychology*, 1, p. 97). He speaks of this experience as the "yes-no consciousness." Judgment in my view is best considered as a special type of belief.

case of self-consciousness in which the conative aspect of the empirical ego appears as determining the realness of its object; then we experience the will act; then we will and believe.

Sec. 6. No one, I think, who examines his inner life with care can fail to notice how constantly and persistently his empirical ego is bound up with, and appears to enforce the realness of, objects which are readily assimilable, and is appreciated as discouraging the realness of those which are not readily assimilable. But this influence of the empirical ego in establishing the stability,—the realness,—of the object becomes most clear when in relation with the empirical ego appear two objects the complete realness of one of which is incompatible with the complete realness of the other, both of which however persist for a more or less prolonged period in attention, *i.e.* have a relative stability or realness, because both are in part assimilated, and yet neither fully assimilated. Then finally we find ourselves emphasizing the realness of one of the incompatibles and asserting our *belief* that one of the two is true or real, and that the other is false or unreal. In such cases the empirical ego is distinctly experienced as active in establishing the realness of the one of the two incompatible objects with which it most fully assimilates; we distinctly appreciate that we believe in what seems to us most in harmony with our every day selves, *i.e.* with our empirical egos.

Thus in all cases of belief the process is the same, and it consists in the appearance from within the empirical ego of some influence which constrains us to resolve in some one direction the appreciated opposition. It is from within the empirical ego that proceeds the power to take that active part in the process which Dr. James speaks of as "loading the dice," so far as this is apprehended.

As John Stuart Mill[1] says, the elder Mill uses the word

[1] *Analysis of the Human Mind*, vol. i. p. 343 note.

belief to cover "every species of conviction or assurance." Later writers however, like Hamilton and Bain, properly restrict the term, as the common man does, "to those cases of conviction which are short of direct intuition."

In a sense it may well be held, as James Sully says,[1] that belief is "a perfectly simple mental state having a unique character of its own." Prof. James also tells[2] us that "in its

[1] *Outlines of Psychology*, p. 398. For the common man, as Sully says (*Human Mind*, i. p. 501), "belief is blind: knowledge is clear sighted. Belief is instinctive, a matter of feeling: knowledge is carefully reasoned out and seems inevitable or necessary." We must hold however that this is a description of an opposition obtaining between cases where belief and knowledge are respectively very distinct as such.

That marked cases of belief have an emotional tinge must be acknowledged, and it is also true that marked cases of what we call knowledge lack this emotional tinge. That marked cases of belief lack the clear cut differentiations which belong to knowledge is also certain. But if our view as to the nature of belief be correct every "intellectual act" must involve some measure of belief, although it may not be recognized as such, inasmuch as every assertion of difference which is implicit in all intelligent activity involves some measure of opposition or doubt, and its resolution. It is true thus as Stout says (*Analytical Psychology*, i. 112) that "there is no thought without some kind and degree of judgment" (belief). Stout (*op. cit.* p. 98) while agreeing to "regard all 'knowing' as 'believing,'" does "not regard all believing as knowing," and he proceeds to give us (*op. cit.* pp. 101 f.), three types of "floating ideas" in which neither affirmation nor negation,—no judgment,—no belief,—are concerned, viz.: "1. The state of doubt or suspense of judgment. 2. The play of fancy, or 'make believe.' 3. Aesthetic contemplation without make believe, or with a minimum of make believe." He is compelled to agree however (*op. cit.* p. 107) that even in the 3rd class, which he thinks most clearly illustrates his view, "the distinction between simple apprehension and judgment . . . remains only a relative one." And in this final view I would follow him. As there is no knowing without some measure of belief: so there is no belief,—no efficient action by the ego in establishing the realness of a presentation,—without such a resultant differentiation in consciousness as, when explicit, is called knowing. Cf. Helen Wodehouse, *Mind*, N.S. 67, p. 362, in agreement with my view.

[2] *Psychology*, ii. p. 283.

inner nature, belief, or the sense of reality (realness H.R.M.), is a sort of feeling more allied to the emotions than to anything else"; and Mr. Bagehot has distinctly called it the "emotion of conviction." The fact that these important thinkers consider belief to be a type of emotion, which is a definite type of presentation, adds weight to the view that it is generally thought of as a special type of experience, such as would be given in the sense of relation arising in connection with the explicit recognition of the firm realness attaching to the given objective presentation.

If with Miss Calkins[1] we content ourselves with saying that "belief is an idea which contains the feeling of realness, and which refers to another idea or an event," we miss, in my view, the distinctive characteristic of belief. There are many ideas qualified by this "feeling of realness," and referring to other ideas or events, which cannot be said to be beliefs. The fact that the sun is now setting involves a presentation with these attributes, but it cannot be said to be a belief of mine,—its realness even if explicit is not thought of as in the least due to my own influence. Let me however question whether the dim light may be due to clouds in the sky instead of to the lateness of the hour, and then the realness becomes explicit through the influence of the empirical ego, then I decide and find myself believing that it is due to the setting of the sun. Until the existence of these states of stability is apprehended cognitively, and affirmed, we cannot truly say that we believe. Judgment is a phenomenon of cognition, and belief necessarily implies judgment.

It is clear from the above definitions that the relation between belief and "feeling" and "emotion" is intimate. But what do these writers mean by "feeling" and what by "emotion"? I take it that they here mean by "emotion" something almost identical with "feeling," and I think that all will agree that by "feeling" they mean something that is

[1] *Introduction to Psychology*, p. 304.

distinctly subjective, as we say,—that is something distinctly concerned with the empirical ego. In fact as we shall see in Chapter XXII. what is usually called "feeling" is nothing other than the recognition of the psychic system, as differentiated from its presentations, in a less explicit form than that which we designate as the empirical ego. It is clear then that in these definitions of belief in terms of "feeling," we have an acknowledgment of the fact that the empirical ego is always implicated in belief.

Sec. 7. We have already noted in Chapter X. that the realness of a noetic emphasis where thorough and persistent is usually overlooked. Only where there occur incompatible emphases does the question of the realness of either of the two incompatibles occupy attention: and here the development, as stable or real, of either of the incompatibles is at once inhibited by the other, giving us the state of doubt.

This doubt may be aroused by the merest momentary questioning and may instantly disappear as the realness of one of the incompatibles overwhelms all opposition: or the doubt may persist for a considerable period and be finally replaced by the stable development of one of the incompatibles. But the recognition of the establishment of this realness, which constitutes the state of belief, never appears except as following the deadlock of a state of doubt, even though this doubt exist but a moment.

The break down of this doubt may be due to a gain in the inner efficiency of one of the two incompatible emphases;—perhaps *e.g.* some new favorable argument appears to uphold one position as against the other;—or some elusive influence from the Self, of which we speak in Book III., appears to produce the same result. In such cases the prevailing emphasis becomes so important in itself that no sense of the efficiency of the empirical ego of self-consciousness is given, and in such cases we cannot be said to believe at all.

Belief is noted only where the deadlock of doubt is con-

tinuous for some measurable time. In such cases the period of doubt persists without any gain of inner efficiency by either of the incompatibles; both seem equally forced upon us for the time. Then the doubt remains until it is resolved in a clearly self-conscious state, when the influence of the empirical ego breaks the deadlock and I say "I believe."

Sec. 8. Probably no psychologist will raise question as to the first point made above, viz. that belief involves the establishment of realness. Nor is it probable that any one after serious thought will question the correctness of the statement just made as a second point, viz. that this establishment of realness in belief necessarily follows doubt. There is however so great a lack of clear discrimination in thought and writing in reference to this subject that we must consider this latter point more at length. Prof. James[1] says "any object which remains uncontradicted is *ipso facto* believed and posited as absolute reality;" and this certainly might be taken to mean that he considers that belief is not necessarily the resolution of doubt. But in thus speaking Prof. James seems to fall into the mode of speech of every day life in which we are wont to fail to make discriminations which are very necessary for the psychologist. Evidently here he uses the word belief, as the common man often does, in a broad way to describe, not the subjective state of belief, but rather an objectively observed state which is a condition of belief, but which as observed is a conception and not properly speaking a belief at all. For belief as psychologists use the term is surely descriptive of a subjective, and not of an objective, experience. We indeed often use the term somewhat objectively without impropriety when speaking of the subjective states of belief in other men, or in ourselves at other times than the present: but surely we speak quite improperly if we extend this objective use of the term to cover

[1] *Psychology*, ii. p. 288. Confer for certain remarks concerning Prof. James' use of the word reality, Chapter x. Sec. 4, footnote.

cases where there is no subjective experience of belief at all. We fall into this error if, as the common man often does, we speak of one as having a given belief just because he acts as he would if he had the subjective experience of belief. Just because a given presentation has intrinsic realness we know by experience that if this realness is questioned belief will be aroused: but this intrinsic realness does not constitute the subjective experience a belief: it is but the condition prerequisite to the appearance of belief if other conditions supervene. We are wont to say thus that the common man believes in the reality of objects in the outer world, and this because he acts as he would if he entertained such a belief: but in fact nothing is clearer than that the average thoughtless man knows nothing whatever of such a belief; he is in fact hardly able to comprehend what the psychologist means when he distinguishes between the subjective and the objective, and is entirely incapable of understanding the significance of the ontological questions with which the metaphysician concerns himself.

It is thus I think that Prof. James must use his terms in the passage above quoted, for in my view nothing can be more certain than that "any object which remains uncontradicted" fails altogether to arouse belief just in so far as its realness is not questioned and fails of recognition. Not until it is thus questioned can it be believed or posited as real.

Sec. 9. These observations prove to be of value when we turn to our final statement; viz. that, given the doubt, the efficiency of the empirical ego in establishing the realness of one of the two incompatibles is always involved when we experience belief. The opposition to the acceptance of this view comes from those who think of an established realness as itself constituting belief. This established realness as we have just seen, does in truth constitute a condition which is almost certain to be followed by belief if question is aroused; but it does not constitute the belief itself. The condition

of established realness is largely determined by inheritance, by tradition, and by custom: and misusing the term belief in the manner above described the common man is wont to say that a large part of our beliefs are determined by inheritance, tradition, or custom; and not by any action of the empirical ego; *i.e.* that they are forced upon us. But the most that we are warranted in holding is that our actual beliefs are in large measure *conditioned by* influences which constrain us from without. Inheritance, tradition, custom, are as definitely extraneous influences as are the direct stimulations from the environment; and while it is clear that these extraneous influences must have much to do with the determination of that realness of presentations which conditions belief, it is equally clear that they are not of the essence of the belief itself.

Definite tendencies are produced by inheritance, by experience of tradition and custom: but not until doubt either explicit or implicit is raised do we ever believe; and then out of the field of inattention when the belief is implicit, from the ego of experience when the belief is explicit, arises the influence which settles the doubt, and leads us to adopt the attitude which we express when we say "we believe." This action of the empirical ego in the welcome of one and the rejection of another of two incompatibles is as we have seen an "act of will," and it thus appears again that whenever we believe a volitional act is involved.[1]

Sec. 10. There are cases where the act of will in belief enforces for the moment the realness of one of two incompatible objects, but where the realness of this object cannot be maintained,—where the realness of the other incompatible becomes fixed by causes extrinsic to the nature of the noetic pattern of the moment. In such cases the object which finally

[1] As Dr. Walter Smith well says (*Philosophical Review*, ii. p. 675): "Beliefs are only irresistible when they cannot be described as beliefs, but are necessary developments of conceptions already held."

becomes real becomes so notwithstanding the first moment's choice by the empirical ego. The belief of the first moment is, after the fact, overridden. In successive experiences a new empirical ego may come to accept the realness of the object before rejected; and we, as we review a long series of states of consciousness, then experience belief which appears to have been forced upon us. We thus gain a concept of an empirical ego which is impotent to establish the realness of an object which it would have established had its nature as it existed in the first instance remained unchanged and permanently effective. It is this experience in the main which leads the opponents of the view here defended to overlook the truth in the case.[1]

This then is the point here emphasized. Whatever conditions may arouse the realness of incompatible presentations, the subjective experience which we call belief never accrues except as the result of an experienced welcome of the realness of the one, and rejection of the realness of the other, of two incompatibles by the empirical ego; and such an action of the empirical ego is in itself a voluntary act. And thus it is that whenever we recognize the fact that we are believing, we will to break the deadlock of doubt.[2]

[1] It has also led men of authority to uphold the view that independence of the will is the criterion of belief in reality. (Confer Robertson, *Mind*, 51 and 53 and 61; and Stout, *Mind*, 57; and Baldwin, *Mind*, 63.) It is doubtless true that opposition to the will goes a great way to call our attention to the realness of certain presentations which we call "objects in the outer world"; but the realness as thus established is in a different realm from that of the will experiences which had to do with its arousal.

[2] It seems best here to point out that this view is *apparently* opposed to the view of Dr. G. F. Stout where he states (*Analytical Psychology*, ii. p. 239) that "wherever belief or judgment exists, it involves the control of our activity as thinking beings by conditions which are fixed for us and not by us. In so far as we are left free to think otherwise than we do think, belief is absent." He admits (p. 258) that there are difficulties in connection with this particular statement, but holds that when rightly considered

Sec. 11. An interesting corroboration of the view here maintained has been brought to my attention by Prof. B. L. Gildersleeve in connection with his studies in Greek Syntax. The Greeks, whose language so accurately mirrored their mental states, made use of two negatives, one of which was used exclusively with verbs of creation, will, and endeavor. Prof. Gildersleeve has noted that the will negative is always used in connection with verbs relating to belief. In his own language, quoted from a private letter, "belief . . . is

these difficulties disappear entirely. I am inclined to think that this apparent opposition to my position is rather verbal than real.

In one sense it is true that "in so far as we are left free to think otherwise than we do think, belief is absent:" that is, at moments when we experience a sense of freedom to accept the realness of either of two incompatibles, the empirical ego has not determined the realness of either of the two, and belief does not exist. It is also true that the Self is part of the whole psychic system, and that if it be held that the nature of the whole psychic system is determined for us and not by us, then it is correct to say that each of our states, inclusive of belief, "involves the control of our activity as thinking beings by conditions which are fixed for us and not by us." On the other hand it seems to me contrary to all our experience to state that when I believe I experience a control of my activity, as a thinking being, by conditions which are fixed for me and not by me. And it is this state of my experience with which I am here concerned.

I feel confident that Mr. Stout's statement of his view is involved with objective considerations, and with a metaphysical theory of the nature of the Universe, which have nothing to do with our present contention. He states in his *Manual of Psychology* (pp. 549 ff.) "Objective coercion is of the very essence of belief. Whatever influence subjective needs as such may have in determining belief, they can never be the sole factor." I do not disagree with this view: but I would say that the "objective coercion" is in truth a condition without which belief cannot exist, but that belief consists just in the overruling of this coercion. He says further (p. 55), "There are two factors then which cooperate in the *formation of belief*, one subjective and the other objective. *Neither of these factors is sufficient by itself; both must be operative.*" (Italics mine.) In view of such a statement it seems to me unfortunate that he should have made the statement in his *Analytical Psychology* first referred to, in the form there used, for it seems to give a wrong impression of his real view.

originally forth-putting of the will. The negative is the negative of the will. . . . The negative in Greek after verbs of belief is so steadily the negative of the will, that when we find the other negative we feel that the belief has faded out."

It is interesting further to note that, if this view is correct, voluntary decision itself must be bound up with belief: the very action of the empirical ego in voluntarily holding a given presentation in attention must tend to be bound up with the voluntary enforcement of the realness of the presentation. This fact we find Stout expressing where he says[1] "the mental attitude of voluntary decision is distinguished by the dependence of the act upon the *belief* that we are going to perform it."

Sec. 12. Here again we see clearly the essential unity of the process in fields of ideation and impulse referred to above.

If the will-act where one of two conflicting impulses is emphasized seems dissimilar to that experienced in the cases above described it is merely because the objects upon which the empirical ego acts themselves differ, in the one case being impulsive and in the other ideational, the process of will action in each case remaining the same. Willing in relation to bodily acts is more common than willing in belief, in the experience of the ordinary man who does not stop to weigh motive or to relate thoughts; and in fact even in the average experience of the contemplative man. But the contemplative man finds often that the willing to do is of less import in his life than the willing involved in belief. The empirical ego in his case often resolves doubts, *i.e.* induces beliefs; which lead to acts involving no appearance in attention of the decision to emphasize one of two conflicting impulses. If the action of such a man is arrested for a considerable time however, the conflicting impulses appear in attention just as they do for the man of uncontemplative habit, and as they

[1] *Analytical Psychology*, i. p. 132.

do in himself in his uncontemplative moods. The most that the contemplative man can say is that if he examines his will-acts with care he finds with Dr. Stout[1] "that it is the cognitive side of our nature which gives *determinate character* to the conative."

Sec. 13. It may be well here to consider for a moment the specific problem set by Prof. James in his *Will to Believe*.[2] In his *Psychology* he teaches the essential connection between Belief and Will, going so far as to say[3] that they "are two names for one and the same psychological phenomenon." In the essay here under consideration he turns to the special problem as to our justification for the determination of special beliefs, using the word belief to describe objective situations and not the subjective situation here considered. This has aroused a storm of objection from many psychologists who claim that such a doctrine is scientifically immoral : who ask "can we make a thing true by our wish to have it so? Have we a right to accept a belief because we like it, when the evidence of its groundlessness is before us?"

The unfortunate use of the word belief with two meanings has led to much obscurity in this discussion ; for it appears that we have before us here two separate matters which if correctly stated are found to be not contradictory, and which our previous considerations put us in a position to explain satisfactorily. The matter referred to at the close of the preceding paragraph involves an ethical question which cannot be discussed here.[4] The other matter however involves

[1] *Mind*, N.S. 19, p. 356. (Italics mine.)

[2] There has been much discussion of this subject in late years by able psychologists, opened up by Professor James' essays. Dr. Dickinson S. Miller opposed James' view in an article in the *Journal of Ethics* and I was led to answer him in the issue of April, 1899. The positions there maintained are practically those which I present in the following pages.

[3] *Psychology*, ii. p. 321.

[4] Confer however my article in *International Journal of Ethics*, April, 1899.

a distinctly psychological question which we are bound to face.

Under our view beliefs are necessarily self-determined, in the sense that the empirical ego is always implicated when we believe. This indeed does not appear to me to be in the least a question of controversy. We may not like to acknowledge it, because perchance we prefer to free ourselves from responsibility which really belongs to us. But whether we like it or not is not the question: and those who recoil from the acceptance of this fact, and refuse to believe it, are in that very act "willing to believe" in its opposite, notwithstanding the evidence which opposes their position.

I cannot but think that the argument here again is clouded often by the failure of the contestants to distinguish verbally, and in thought, between reality and realness of which I have already spoken. The appreciation of such a presentation as a "reality" has nothing whatever to do with the problem of "belief and will." Of course I cannot by my own act make a reality any more than I can make any other presentation. Of course I cannot make a universe different from what it is, *i.e.* create a new reality, just because I happen to wish the universe were different, and because I think better consequences would result if it were different. As F. H. Bradley says (*Mind*, N.S. 44, pp. 440 f.) "If by your volition you have, for instance, produced truth and knowledge in yourself, you may by a legitimate abstraction neglect the aspect of its appearance in you, and so take the truth merely as being such and such in itself. But if while still maintaining this abstraction, you attributed the resulting truth to your will—you would have fallen into a very serious confusion and mistake. At least for psychology the will to know cannot alter the real object known, and it cannot, in other words, make truth. Your will to know alters your actual existence, and with that comes a changed appearance of the object in you, but the object itself is not thereby changed. The truth in belief

has two aspects . . . and it is only one of these aspects which can be produced by your will. The ideal qualification of the object has been a real change, but it has not, at least for psychology, altered the object as existing."[1]

In answer to the question of our opponents as given in the opening paragraph of this section we would then say: you cannot make a truth by an act of your will; but you can, and do, make objects real by your acts of will in believing. How far you are warranted in believing thus in special ways is an ethical question and is, as I have said above, apart from the subject treated in this work.

B. Attention and the Object-Subject Relation

Sec. 14. If in attention the relation of intensity to manifoldness is given; and if in the object-subject relation the relation of realness to manifoldness is given; and if degrees of intensity and of realness tend to vary directly; then evidently where attention is given we have the conditions which will be likely to bring into prominence the object-subject relation; and where the object-subject relation is given we have the conditions which will be likely to bring attention into prominence. Where attention is very marked as such, it is because a special "sense-of-relation" presentation is given; and the same is true where the object-subject relation as such is very marked. It is evident of course that attention and the object-subject relation as such are not likely to be emphasized *at the same moment.* On the other hand we shall expect to note (*A*) that where attention in a given direction is so marked that we consider it in itself, the presentation attended to will *in future moments* be likely to

[1] I may add that I find myself in the main in agreement with Bradley in his criticism of James' use of terms. Confer *Mind*, N.S. 46, pp. 157 ff.

have its realness emphasized in becoming objective in the object-subject contrast. So also we shall expect to note (*B*) that where the objective aspect of a given presentation is so marked that we consider it in itself, the presentation thus objectified will *in future moments* be likely to have its intensity emphasized in becoming the focus of a state of attention.

Sec. 15. It is unnecessary to dwell upon the second point just made, for it is clear in the fact that objects so usually come within the focus of attention that we actually most frequently speak of the presentation which is within the focus as the *object* of attention. It may be well however to say a few words in relation to the first point.

While it is true that attention does not necessarily involve the realness of the presentation attended to, in any other than the narrow sense of realness which applies to mere experience as such, it is evident that persistence of attention to a given presentation must involve a tendency to the creation of a fuller stability and a fuller sense of realness in connection with the presentation which will have its effect in future moments.

That attention which is forced upon us from without tends to produce an appreciation of objectivity in connection with the presentation attended to, is clear in the fact that our sense perceptions give us such firm convictions of the existence of objective realities. But it is equally clear that attention which is distinctly voluntary, *i.e.* which is maintained from within the psychic system, tends to give objective reality to the presentation attended to. Of this we have marked examples in cases of self-sophistication where the objectiveness gained is evidently artificial. When we wish a situation to be objectively real, we may actually find it becoming objectively real if we persistently maintain an attitude of attention in relation to it. By dwelling upon the arguments which we wish to have become effective we obliterate the force of

counter arguments which would normally tend to render our chosen view untenable.[1]

[1] The sharp cut cases of attention which is forced upon us from without naturally shade off into those cases where attention is forced upon us from within the psychic system in voluntary attention: and the corresponding establishment of objectiveness is noted in connection with them.

In hallucinations we have cases where objectiveness is due to attention which is not under the full control of the psychic system, and which could not exist if the control of the system were complete. Hallucinations are usually thought of by us as experiences only of the insane; but this can only be maintained if we hold that all normal men are at times insane, notably in their dream life: for, as Prof. Royce (*Outlines of Psychology*, p. 355) has pointed out, what we in waking life call hallucinations occur normally in our dreams. Hallucinations are presentations which are distinct in attention, they are true percepts which at the same time gain so much realness that they are falsely judged to be due to such objective conditions as usually yield percepts; and this false judgment merely means that the full conscious system in such cases is not completely in control as it is in normal life, for then this false judgment is not made. The insane man is one whose full conscious system either for a time fails to control his field of attention, or one whose conscious system is permanently disorganized. We in our dreams are men whose full conscious systems fail to control the field of attention; and our dreams show the result in the objective realness of presentations which could not for a moment hold in moments of wakefulness.

But as we should expect, we find the hallucinatory presentations of dream life, with the objectivity attached to them, fading off into states which are common to the wide awake life. These latter states give us what we speak of as the realm of Fancy. We let our thoughts play, and objectivity is attached to all the presentations that are given without relation to the fact that were our Selves in full control the realness would depart from them.

From states of Fancy we step to those of Imagination where the control of the whole psychic system is more complete. In such moods we conceive *e.g.* of the mermaid and the unicorn, and picture to ourselves the experiences of *Alice in the Looking Glass*.

Taking one step further we have what we call, when speaking objectively, the "constructive imagination," in which objective realness is for the moment given to the presentation acknowledgedly by the action of the empirical ego. And from this we step quite naturally to the world of "make believe" where the Self, as explicit in the empirical ego, very distinctly steps in, and for its own purposes casts off its usual criteria, and

Artificially induced impressional influences which force attention by their repetition act in a similar manner. The reiteration of the spiritualist medium's fraudulent illustrations make the common man accept the objective reality of "ghosts"; and the reiterated claim that the phenomena upon which the ghost hypothesis rests are inexplicable except upon the hypothesis of spirit control has led many men of sound mind to attach much more of realness to these appearances, and to the hypotheses connected with them, than is warranted by the given facts.

The pedagogical importance of this reiteration of enforced attention in producing an appreciation of objective reality is readily seen: by such means we learn for instance to look upon geometrical relations as objectively real, which naturally would not for a moment be thought of in this way. Attention which is recurrently forced upon us from within has the same effect, and usually a more powerful effect, as is noted in the efforts of wise teachers to induce their pupils to attain a habit of learning by means of voluntary attention.

Sec. 16. A presentation which will not assimilate with (will not become real in relation to) the whole system, may yet as the result of persistent attention become real in relation to an important partial system, with the result that there occurs a breaking up as it were of the whole system into parts. We have, for instance, the familiar attitude of the scientist who is an ardent Roman Catholic. In general he believes thoroughly in the realness of the dogma of the infallibility of the Pope, and that Christ was born of a Virgin, as objective realities; but in a certain mood which is induced by artificial attention he may assert the realness of doctrines of modern

makes real and objective for itself the presentations to which it attends, although in normal practical life it would refuse to do so. We are thus able to hold in attention as real, in a broad realm, presentations which we are fully aware are in their own nature wholly lacking in realness in all other senses than as mere conscious experiences.

science which are thoroughly incompatible with these religious beliefs. In such a case the man's consciousness is evidently split off into two incompatible apperceptive systems in the two moments. He becomes two personalities, with two sets of real presentations which do not clash, do not overthrow one another, just because they are not brought into relation. Though there be a bond of unity in the two personalities; there is little if any bond between the systems in which the incompatible doctrines severally appear.

Sec. 17. If attention and the object-subject relation vary together we must expect to find that as they become prominent in conjunction, so the appreciation of attention and the appreciation of the object-subject relation will disappear together.

An elemental intensity of relatively high grade may occur, but the presentation which it qualifies will not be apprehended as forming the focus of attention provided this high degree of elemental intensity is thoroughly coordinated in all normal noetic patterns. This is the case with the ordinary ocular sensations, and even those given in the glare of noon tide.

A similar situation is observed in relation to the object-subject relation. As we have seen in Chapter x. realness of high degree may be given, but its existence will not be appreciated if it is thoroughly established. So a fully real presentation will not be apprehended as distinctly objective provided the high degree of realness is thoroughly coordinated in all normal noetic patterns. We are not self-conscious, *i.e.* objectiveness is not given,—under conditions of life which are very usual. As any special activity in a part of a system becomes more thoroughly coordinated with the whole, it becomes more difficult to raise this special element into prominence in contrast with the activity of the system. Thus we should expect to find, as we certainly do find, that as realness becomes established it becomes less noticeable as such, and the presentation which it qualifies

becomes less likely to be objectified: and coordinately we should expect these presentations to be less likely to become marked objects of attention. In such cases the object will not rise into the focus of attention in a form which leads us to the observation of its realness except as the result of an opposition such as is involved in doubt: *i.e.* in such cases we must be aroused by doubt before we can apprehend the fact that we experience the objective realness; and as we have already noted we must cast out our doubt by an act of will before we rest assured of this objective realness in the explicit act of belief.

DIVISION III. THE CORRELATION OF THE GENERAL QUALITIES OF GROUPS I. AND II

SUB-DIVISION I. THE ALGEDONIC QUALITY IN RELATION TO THE GENERAL QUALITIES OF GROUP I

CHAPTER XVI

THE ALGEDONIC QUALITY IN RELATION TO INTENSITY AND MANIFOLDNESS

I. The Relation to Intensity

Sec. 1. As we have seen, both Intensity and the Algedonic Quality are characteristics of an elemental nature: that is they would probably be found to inhere in the psychic element if it could be isolated.

Pleasure involves the appearance in the neural element in dynamic form of energy which has been potential, and this necessarily implies a relatively high degree of activity in the organic part, which must correspond with a certain degree of intensity of the psychic element under consideration. Pain involves the action of a neural element which being ill nourished would be quiescent but for the fact that it is forced to act by powerful stimulation: it thus involves a relatively high degree of enforced activity in the organic part, which again involves a certain degree of intensity of the psychic element under consideration.

In a general way therefore we may say that we should expect to find intensity bound up with pleasure and with pain: and

this expectation is fulfilled. Our pleasures and pains are surely among the most emphatic parts of our conscious experience.

Sec. 2. Introspection shows us however that the relation between the intensity of the elemental presentation and its algedonic quality is not a direct one. If we examine for instance the simplest experienced sensation and note its relation to the attached pleasure-pain quality, we find that its continuously increasing intensity, or its continuous intensity which seems to remain unaltered,[1] involves changes in the pleasure-pain quality attached to it, which do not correspond with the altered conditions of intensity. Wundt has very clearly expressed this relation in the figure which we reproduce below, which it is to be especially noted is a symbolic representation of the facts of experience as tested by introspection, and which was devised by Wundt to express these facts without regard to any such theory concerning the physical basis of pleasure-pain as is here maintained.

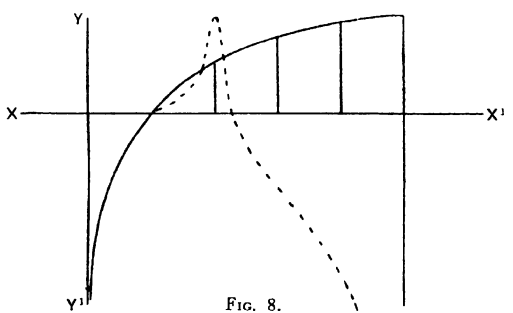

FIG. 8.

The diagram above, taken from his *Physiologische Psychologie*, i. p. 511 (3rd edition), explains the law graphically.

[1] Our previous study of Weber's law teaches that continuous and apparently unaltered intensity involves a continuously increasing neural activity just as much as an apparently continuously increasing intensity does.

The horizontal line indicates the general "threshold" of sensation and also of pleasure-pain. The solid-line curve indicates the rise of sensation according to what is known as "Weber's law." The rise of this curve above the horizontal indicates increase of sensational intensity. The dotted-line curve indicates the alteration of degree of pleasure and pain corresponding with increase of sensational intensity; all above the horizontal line indicating pleasure, all below indicating pain; the degree of pleasure and pain being represented by distance from the horizontal.[1]

This expresses the facts as usually noted in relation to sensations which are the forms of presentation most easily observed under control. The same relations between increasing intensity and the algedonic quality are however also observable in all other than sensational presentations, although with them control of conditions largely fails us, and the tendency to shiftings of attention makes the observation of the facts somewhat difficult.

When a presentation at first appears as such "above the threshold" it in that fact has a certain amount of intensity, and is to a certain extent pleasant. With the increase of the intensity, and usually also with what we call a mere continuance of the same intensity, the pleasure at first increases with relative rapidity until it reaches a maximum, then decreases with relative rapidity until it disappears. If the intensity is still further increased, or usually if what we call the same intensity is prolonged, pain appears, and rapidly increases until rather suddenly the pain disappears, as the presentation also disappears.

The normal development of intense and persistent presentations through pleasure to pain is well illustrated by our experience involving the continuous exercise of a definite set of muscles, as in the felling of a tree by a vigorous man in

[1] Confer my *Pain, Pleasure and Aesthetics*, pp. 241 ff. for a fuller consideration of the questions here involved.

good health. The muscular pleasure increases rapidly; then declines rather rapidly, (although less rapidly than would happen but for the fact that the exercise increases the circulation which brings fresh nutriment to the active parts which tends to balance the loss of energy). But presently the pleasure ceases; we find we no longer exercise the muscles spontaneously; pain begins to be felt; and if the exercise is persisted in without rest this painfulness increases rapidly, until suddenly our capacity to continue the activities is lost; there is a deadening of the muscular feelings, then finally a complete cessation of them, and at the same time the pain directly connected with them disappears; although pains of another sort, due to general exhaustion, may of course still persist.

Sec. 3. The facts above considered furnish corroboration of the algedonic theory already presented.

A. Under this hypothesis an increase of an elemental neural activity sufficient to raise its corresponding psychic element out of the psychic mass and into emphasis as a presentation ("above the threshold") must usually involve the action of a nervous part in which some amount of surplus stored energy exists; for before its activity was increased it was relatively quiescent (as is shown by the fact that its psychic coincident was "below the threshold,") and in condition to absorb nourishment. This surplus energy will then be transformed from potential to actual form immediately upon the demand for increased activity made upon the neural part by the stimulus. This means that the presentation under such conditions will first appear in pleasant phase as Wundt's symbol indicates; and that as intensity increases, or if high intensity appears as continuous, the pleasure will increase until a maximum is reached (when the surplus stored energy is used to the full), when it will very rapidly disappear (as the surplus of stored energy becomes rapidly exhausted).

This is a mere statement in formal shape of the general

experience of men; viz. that all specific pleasures are evanescent;—that any attempt to keep permanently in mind a pleasant presentation as such is doomed to failure;—that the presentation which begins by being pleasant, if persisting as practically "the same" presentation, rapidly carries us to a maximum of pleasure which then much more rapidly wanes until it disappears altogether.

B. But if our hypothesis is warranted, a continuance of the presentation in emphasis as intense, after the transition point of indifference is reached, must involve an activity in an organic part which is not well prepared to act, and is only sustained by the forceful stimulation, and not by the natural use of surplus stored energy; for if pleasure is not given this is because all this surplus has become exhausted. Such continuance of the presentation in emphasis can therefore only obtain in correspondence with an overdraught upon the normal energy of the organic part, and this under our theory must involve pain: and this pain will increase rapidly, as the draught upon the resources of the neural element reduces rapidly its capacity to react, until the organic part loses all capacity to react, and ceases to react; the corresponding psychic emphasis or presentation being lost. That is to say, as Wundt's symbol indicates, pain rapidly increases under such conditions until rather suddenly it disappears; and it disappears together with the presentation to which it was attached.[1]

We have a good example of this in the experience connected with the killing of the nerve of a tooth, as practised in modern dentistry. The irritants placed upon the nerve terminals rapidly increase the tooth sensations and the pain, until the pain becomes extraordinarily vivid. But presently

[1] For an explanation of those exceptional cases where both the presentation and its attached pain persist for unusually long periods, see my *Pain, Pleasure and Aesthetics*, p. 259. I would refer the reader in this connection to all the matter from p. 242 to p. 259 of that book.

the pain very suddenly ceases altogether, as do all of the tooth nerve sensations; for the nerve terminal is dead.

This course most easily noted in the sensational realm appears through all regions of mental activity *where the presentation in itself does not change appreciably.* This lack of noticeable change in the nature of the presentation must be kept constantly in mind in such introspective examination as we are here making; for, automatically we tend to shift our field of attention as soon as pain begins to be felt: as we shall see later, our conscious system reaches out naturally toward new presentations which do not involve pain, unless there be a continuation of stimulation from without which compels the continued attention upon what we call the same presentation. This fact makes it difficult to trace the change of painful intensity in states not due to external stimuli which we are able to govern.

Sec. 4. In this connection it is to be noted:

C. That apart from certain very exceptional cases, presentations if painful do not become indifferent or pleasant, if their intensity continues or increases.

c. A condition where stimuli exist of more energy than can be reacted to equivalently (pain), if continued, will not be followed by a condition where equivalence prevails (indifference), or by a condition where the energy involved in the reaction is greater than that involved in the stimulus (pleasure): for in such a case the excessive stimulus will use up all energy which otherwise might bring repair to the stimulated part, which only thus can regain its normal condition or store surplus energy.

D. On the other hand, if a presentation is pleasant, continuity or increase of intensity will eventually result in decrease of the pleasure, until indifference is reached, and is finally displaced by pain.

d. When with given stimuli the reaction shows a potency more than equivalent to that of the stimulus (pleasure), and provided the stimuli are continued or increased, then the

potency of the reaction will decrease as the surplus stored energy is used up, and then the incoming and outgoing energies will first gain equivalence (indifference) and finally the relation will become one where the potency of the stimulus will be greater than that of the reaction (pain).

Thus, in connection with continuance of intensity, pleasure in connection with a given presentation fades into pain, but pain never fades into pleasure.

E. Reduction of the intensity of a given painful presentation in all cases reduces the pain until it disappears, but it does not change the pain into pleasure,—this change from pain to pleasure occurring only in case the presentation disappears for a considerable time from the field of attention.

e. If the activity in a nervous part which has been subject to an overdraught (pain) is reduced, this overdraught will be reduced, and pain will decrease and will finally cease altogether (indifference). But this decrease does not give a surplus of stored force in the neural part involved (such as would be necessary to give pleasure); and no activity in the neural part will be able to show a use of surplus stored force unless for a time all marked action of the part ceases, giving the organic parts time to recuperate

F. Reduction of the intensity of a given pleasant presentation also reduces the pleasure until it disappears; but does not change the pleasure into pain.

f. If the activity of a nervous part in which a surplus of stored energy is available is reduced, less of the surplus stored energy will be used (less pleasure will be given): but reduction of activity will in no such case put the nervous parts into a condition of inefficiency which will yield pain.

Sec. 5. Occasionally we experience slight active pains which disappear without charge of intensity in the presentation to which they are attached, and may even give place to pleasures of low degree without perceptible reduction of the stimulus: "we get used to the pain," we say. But such cases of pain-reduction without reduction of the intensity of the presentation to which the pain is attached form the

exception which makes prominent the rule that we must decrease intensity if we are to decrease the painfulness of the given presentation.

In terms of our neururgic theory we may explain these facts as follows. Where we "get used to pain" the conditions are similar to those producing the "second wind" of the athlete, which is evidently due to the starting up of activities which bring to the wearied bodily parts an amount of nutrition in excess of the demand. Many methods in therapeutics aim to break down acute pains by bringing additional nutritive supplies to the organic part affected, rather than by attempting to reduce the excessive stimulus reaching this organic part. Under such conditions moreover not only is the wearied neural part revived, but at times it may be placed in condition to react in higher degree than the stimulus demands, and in such exceptional cases pleasure is given.

In general however we must decrease the force of the stimulus if we are to reduce the overdraught upon the neural element to which the pain is due. The reduction of the force of the stimulus may leave an equivalence between the incoming and the outgoing energies in the neural part involved (and then we have indifference): but mere reduction of this force of stimulation cannot usually result in a use of surplus stored energy with pleasure, unless there is a period of rest from activity in the organ, during which recuperation occurs.

Sec. 6. All, or at least a vast proportion of, the neural parts have some capacity for storage, and will store surplus energy during the times of their minimum activity: the use of this surplus stored force will therefore occur at the beginning of higher than normal activity after normal conditions. Where however the amount of stored force is not relatively large the surplus energy will soon be exhausted, and then the pleasure quality in connection with the presentation will

disappear. The storage capacity is not likely to be large unless the organ has often been hypernormally stimulated.

This must lead us to hold, as we have noted above, that the *first appearance* of a presentation must be normally accompanied by a certain degree of pleasure. This should mean that in general the stream of presentations, apart from such as are notably persistent, are pleasant; and this appears to be true. The pains of enforced activity and of restriction are so notable, and involve such powerful protective reactions in the system as a whole, that we are wont to emphasize the fact of their prevalence, as the pessimist especially does; but if we do so we clearly overlook the fact that the vast mass of the experiences of life are spontaneous and involve moderate pleasures. Indeed (if we except the narrow region where pleasure-capacity appears to be practically lacking) it may be asserted without fear of dispute that all vivid presentations which have been before present in consciousness are at the start pleasant in some degree. The pleasure indeed may be very slight and of very short duration, and it will be so unless the presentation with which the pleasure is now connected has been often in attention, and unless there has been a somewhat prolonged preceding time of non-appearance of the presentation with which it is now connected.[1]

Our ordinary sensory field as it appears in consciousness has usually the slight balance in favor of pleasure which comes with such beginnings of activity: our sense organs are constantly changing the scope of their activity in small ways, and with the change comes slight pleasure. Apart from our sensations, which are determined directly by environmental stimuli that often involve hypernormal activity, the great mass of our conscious states have this slightly pleasant tone

[1] This necessarily carries with it the implication that pleasure is not always determined by antecedent artificial restriction of rise in consciousness, but may be determined by simple increase of intensity of content: *i.e.* pleasure is not always mere satisfaction of desire, as has been so often held.

where the flow is spontaneous as we say: *i.e.* easy and not forced through habits of attention. What we speak of as spontaneity would then, under this theory, imply pleasure; and common observation bears out the theory in this respect. Wide fields of low-grade pleasure-getting, thus reached, form the groundwork of aesthetic effects.

Sec. 7. It is to be noted here again that pleasure and pain, when appreciated as such, are thus appreciated because they involve the appearance of special noetic emphases, *i.e.* special "senses of relation," and when these form the presentations of given moments they, strictly speaking, must be as such more or less intense. It is to be recalled however that we usually use the word intensity to refer to the degree of emphasis of our sensations. We are much more likely to refer to *degrees* of pleasure and pain although we are not without justification in speaking of the pain quality or the pleasure quality as being more or less intense or vivid. In like manner, on the other hand, a given intensity when appreciated as such is of the type which we describe as an idea or a thought, and as such has the algedonic qualifications which belong to all presentations of its kind.

II. The Relation to Manifoldness

Sec. 8. As we have seen in a previous chapter Intensity and Manifoldness are inversely related: the more vividly an intensity appears in a complex presentation the less is manifoldness appreciated; and *vice versa* the less of intensity the more of manifoldness. If then it is true, as we have just seen, that pleasure and pain are usually bound up with noticeable intensities, then we should expect to discover that where manifoldness is highly developed in the presentation of any moment marked pleasure and pain will be lacking.

Manifoldness appears less marked in the realm of sensation

than in other psychic realms, so much so that until very lately it has been assumed that certain sensations are psychic elements or atoms devoid of all manifoldness. We should expect therefore to discover our most marked pleasure-pain experiences in connection with sensations which display intensity rather than manifoldness. This is so general an experience that the common man is wont to think of pleasures and pains as forms of sensation, it being difficult indeed to persuade even the trained psychologist that the common man is altogether wrong in this, and that the algedonic quality is a general quality of all forms of presentations.

In the realm of thought we have manifoldness developed in the highest degree; and here then we should expect to find the pleasure-pain quality notably lacking in prominence. If we move from the realm of sensation to the realm of thought by steps graded in relation to increase of manifoldness, through perception and conception up to our broadest processes of reasoning, we find a loss of pleasure-pain prominence coordinate with the increasing prominence of the manifoldness attaching to the presentations: and when we reach the realm of pure thought our presentations seem so lacking in either pleasure or pain that we usually class them as indifferent. What we thus think of as a state of indifference is indeed, as I have already said, a state in which there is so little of either pleasure or pain that they are commonly overlooked: and it appears to me that there is always a shade of pleasure attached to the flow of thought when it is spontaneous, as we say; and a shade of pain attached to this flow when it appears to be forced upon us.

Sec. 9. We must assume however that where manifoldness is highly developed each differentiable element of the complex presentation may be in some slight measure colored with pleasure or pain; and if this is true we should expect occasionally to experience complex presentations in which a large number of the elements are very slightly painful or

very slightly pleasant, the pains and the pleasures being summated as it were, so that the whole state would appear one of voluminous pain or pleasure as the case may be. The presentations connected with feverish conditions, for instance, display a high degree of manifoldness, and here the painfulness is full and voluminous and evidently summational, in correspondence with the broadness of the parts affected by the morbid conditions. In similar manner the generally distributed sense of genial warmth which we experience when we stand before a blazing fire in winter is evidently highly manifold and also highly pleasant: and very evidently these warmth pleasures are of a summational type.

Even in the realm of thought in which manifoldness is prominent, and which as we have seen in itself usually seems indifferent, we appreciate something of the experience of the summation of pleasures where the whole state is allowed to remain thoroughly spontaneous, as in reverie, day dreaming, in the flow of fancy and of unrestrained imagination.

The relatively permanent aesthetic pleasures are to a great extent developed by such summation of pleasures[1] of minor degree; and in a large proportion of art works of lasting importance the pleasant impression upon the observer is highly voluminous. Especially is this true in the case of music, although it is not difficult to show that the same effect is observable in other noble forms of artistic production.

Sec. 10. As we have indicated in Chapter IX., the one of all our presentations in connection with which manifoldness is most distinctly marked is the empirical ego: in connection with the empirical ego therefore we should expect to note distinctly these summational pleasures and pains, although of so moderate a degree that they would not often attract our attention as such. And it is clear that while the empirical ego as such is never a markedly painful or pleasant presentation, we do experience it as summationally algedonic, as is

[1] Cf. my *Aesthetic Principles*, pp. 43 ff.

shown in the fact that psychologists very generally recognize the marked *subjectivity* of pleasure and of pain, this being an acknowledgment that when we consider the distribution of pleasures and pains we find them in general more closely appreciated in connection with our experience of the subject or empirical ego, than in connection with that of the object contrasted with the empirical ego.

III. The Relation to Attention

Sec. 11. Attention is a term descriptive of the whole state of consciousness in a given moment so far as it involves an emphasis of the relation between the emphatic partial presentations which we speak of as intense, and the mass of unemphatic partial presentations which make up the realm of manifoldness. If then pleasant and painful presentations are bound up with marked intensities, as we have seen is the case, they must as a rule be marked in attention, and this is a matter of common experience. A painful or pleasant presentation at once attracts attention. It is to be noted however in this connection that states of attention do not necessarily involve any great vividness of intensity; all that is necessary to their existence is a certain sharpness of contrast between a broad field of manifoldness and what may be a very moderate intensity. And as we have seen, we are wont to overlook the pleasures and pains connected with moderate intensities, and to think of the presentations to which they are attached as indifferent. We should expect therefore to find that states of attention are not in the least limited to noticeable pleasures and pains; but that what we call indifferent states are also attended to: and this should be more noticeable in the realm of thought than in sensational realms, as the algedonic quality is less vivid in the former than in the latter. Clearly this expectation is verified by

introspection. Sensations which are attended to are notably algedonic: but in the realm of thought, many presentations to which keen attention is given are not considered in their algedonic aspect at all, or if thus considered are usually looked upon as indifferent. I am very certain however that careful introspection usually shows the existence of very moderate degrees of pleasure and of painfulness even in such cases. Where the attention is free and spontaneous it is always in my experience pleasant to attend: where it appears forced in any degree as the result of inhibitions of any kind it seems something more than non-pleasant, and actually moderately painful.[1]

Sec. 12. The relation of attention to pleasure-pain is sometimes expressed as though there existed an opposition between the two, rather than the harmony above considered. Thus Volkmann[2] says: "Zwischen der Bestimmtheit des Inhaltes und der Stärke der Betonung besteht ein umgekehrtes Verhaltniss," and he thus expresses an introspective fact which each of us can readily verify. But no opposition to the view stated in the preceding sections is here involved; for Volkmann's statement has reference, not to the fact that marked cases of attention are commonly also markedly algedonic, but rather to the very commonplace fact that very diverse presentations cannot be attended to at the same moment. For it must not be forgotten that when we consider the algedonic quality in itself we do so because we experience a special sense of relation, which is a very definite form of presentation. What is referred to in the above

[1] In those cases of attention which we may call with Prof. Bain cases of "neutral excitement," I seem to notice a constant shifting of ground; a constant alteration of the presentation attended to: in fact this shifting is implied in the common sense meaning of the word "excitement." I am led by introspection to agree with Prof. Sully that these states are really widely but dimly tinged with pleasure or with pain.

[2] *Lehrbuch d. Psychologie*, 35.

quotation as the "Stärke der Betonung" is such a presentation, and the "Inhalt" is another presentation of a diverse kind. All that we state then in the sentence above quoted is that of the two diverse presentations thus considered, attention to one tends to preclude attention to the other.

Pillsbury[1] says "As we attend, objects tend to lose their pleasantness or unpleasantness and become entirely indifferent." This is however "when attention is directed to the feeling process itself and alone."[2] Here we are evidently attending to the special pleasure sense-of-relation, or to the special pain sense-of-relation, which are within presentative realms far removed from the pleasure or pain giving elements; are in fact within the realm of ideas in which we find all senses of relation; and in this realm, as we have seen, noticeable pain or pleasure is very often lacking. When I turn my attention from a pleasant presentation to pleasure in itself, the presentation to which the pleasure was attached necessarily disappears from attention.

Sec. 13. If pleasure indicates the efficiency of the special neural part which is called into activity coincidently with the pleasant presentation, then pleasure should imply a tendency to persistence of activity in that special neural part: and if this is so, then the partial presentation to which the pleasure attaches should tend to retain its peculiar intensity, and should tend to remain in contrast with the field of manifoldness; that is it should tend to persist in attention. If on the other hand pain indicates the inefficiency of the special neural part which is called into activity coincidently with the painful presentation then pain should imply a tendency to a lessening of the activity in that special neural part: and if this is so then the partial presentation to which the pain attaches should tend to lose its peculiar intensity, and should tend to fail to remain in contrast with the field of manifoldness; that is it should tend to fail to persist in attention.

[1] *Attention*, p. 186. [2] *Op. cit.* p. 188.

That these expectations are met in our experience is very clear. It is easy to keep our attention fixed upon pleasant presentations; but attention evidently tends to "fritter away" from painful presentations, which we can keep before our minds only by an effort unless they are forced upon us. So clear is this that Dr. James Ward[1] has stated the facts of pleasure-pain in terms of attention, as follows: "There is pleasure in proportion as a maximum of attention is effectively exercised; and pain in proportion as such effective attention is frustrated."

The view we have above expressed, so far as pleasure is concerned, will be accepted without objection; but some reader may not improbably object that it is difficult to agree that painful presentations tend to be lost to attention, if he happens to be experiencing the painful throb of a neuralgic toothache. He must note here however that the painful presentation in such a case is kept in attention by the persistence of the stimulus which produces action in a diseased nerve; and that pains thus persist in attention no one of course will deny. What is asserted is that a painful presentation, *if left to itself* so to speak, tends to fail of persistence in attention; while a pleasant presentation, *if left to itself*, tends to persist in attention. Stop the continued irritation of your tooth nerve, and the painful sensation tends to drop out of attention at once: but stop the stimulation that gives a pleasant presentation, and this pleasant presentation tends to persist in attention, to be clung to.

There are certain pains, often also persistently held in attention, which do not seem at first sight to be due to excessive stimulation from the environment. These we may look upon

[1] *Encyclopedia Britannica,* Article "Psychology," p. 71. Confer Stout's statement (*Analytical Psychology*, ii. p. 270): "Our starting point lies in the conception of mental activity, as the direction of mental process to an end. . . . The antithesis between pleasure and pain is coincident with the antithesis between free and impeded progress to an end."

as due to the excessive stimulation of the nerve part which gives us the coincident pain, by what is for this part its environment, although this environment may be entirely within the neural system far separated from the terminal sense organs. It is easy to conceive how, quite within the system, morbid conditions of nutrition may exist which will produce excessive activity along the lines of nerve conduction, which will be represented in consciousness by persistent pains not easily recognized as due to any excessive stimulation of the nerve parts directly affected. And it is to be noted that by readjustment of nutritive supply the organ whose activity is coincident with the pain may be prevented from rapid deterioration and thus the pain's persistence may be greatly prolonged: it has always been the aim of the torturer to produce such conditions.

Sec. 14. We are thus brought to the consideration of the relation between pleasure-pain and the movement of attention in association.

It will be agreed that in the natural unobstructed flow of thought, in reverie for instance when we "let ourselves go" as we say, a tendency appears to dwell upon pleasant things. This means that in the movement of attention pleasant presentations rather than painful ones tend to be associated. It is true that men often dwell upon matters that are called disagreeable. But it is always doubtful in such cases whether they are disagreeable in anything but name,—whether the individual is not actually enjoying them, or the self-sympathy connected with them. In most cases where we dwell upon painful matters it will be found that the pains (*e.g.* pains of disappointment) are determined by the restriction of the development of thoughts which would normally be pleasant, or else are pains determined by persistent stimulations either primary or secondary. At all events it is to be noted that when painful thoughts do thus persist they are spoken of as "morbid," which involves a recognition that the condition

in which this occurs is abnormal, and that the natural course of the flow of thought tends to show a movement from pleasure to pleasure.

The considerations which have preceded this should have led us to look for just such conditions; for evidently the tendency to the persistence of presentations, which is involved with their pleasure, should tend to establish associations; and the tendency to the disappearance of presentations, which is involved with their painfulness, should tend to prevent the formation of associations. For associations involve close bonds between the elements associated; and while the tendency to loss of emphasis which goes with pain in connection with a given presentation will lead to a breaking of bonds, the tendency to persistence of emphasis which goes with pleasure will lead to a strengthening of bonds.[1]

[1] Some pessimist may here object that in what has been said I assume the existence of more pleasure than pain in this world; and that I am thus begging a most important question; for he is convinced from his experience of life that quite the opposite is the case,—that there is more pain by far than pleasure in life.

To this I would reply that, apart from the question of fact to be referred to below, he is confusing the question at issue. In terms of our present thought he is claiming that the world for him is one in which presentations to which the word pain attaches predominate over those to which the word pleasure attaches. I shall not deny that this is a record of a true experience for a pessimist at the time of his making his objection; although I deny that it is true for many men for any but a small proportion of the hours of their thoughtful lives; and doubt whether it is true even for the pessimist for any large proportion of these hours.

But even if we accept the pessimist's statement as a fact, this fact does not stand in opposition to our contention: for all that he can claim is that in these special moments the presentations to which the word pain is attached are forced upon his attention by considerations which appeal to him *from without the natural development* of these presentations in thought. What I am claiming is quite another matter; viz. that a painful presentation (not a presentation to which the name painful is attached) naturally tends to disappear from attention.

I may add here however that I find in my experience no ground for the

The question is sometimes raised whether pain as such, and pleasure as such, can act as bonds of association; but if what we have just said be true association cannot occur through algedonic bonds, if we retain the current meaning of the term association. For under this usual conception only specific presentations can be associated; even as only the activities of specific neural parts can become closely connected. Pleasure and pain, being general qualities involving general "senses of relation," if they are attended to as such "senses of relation" must tend respectively to arouse any one pleasant or painful presentation as well as another; and no definiteness of relation, such as is necessary to association as ordinarily understood, would be fixed. The most that can be said is that pleasure involves a tendency to unlock the efficient activities of the system as a whole, and to make consciousness more wide awake; and, on the other hand, that pain involves a tendency to cause all activities within the system to cease, and to benumb consciousness, if we may so speak. And these conclusions, in my view, accord with our experience. Where there appears to be an association by mere pleasure, or by mere pain, we really have in the one case an association of one pleasant presentation with another pleasant presentation; and in the other case an association of one painful presentation with another painful presentation. We can no more make pleasure-pain itself a basis of association than we can make degree of intensity a basis of association.

pessimist's claim that there is a balance of pain in this world. The natural flow of presentations appears to me to be from pleasure to pleasure, mild in form though this pleasure be, so mild indeed usually as to lead us to call the presentations indifferent. Occasionally this flow of presentations is thwarted by some opposition, which involves a pain and a concentration of attention upon the pain; and the thoughtless pessimist forgets that relatively long flow of mildly pleasant thought which preceded the pain, and thinks of pain as predominant in the world because this pain has filled his consciousness for the moment.

IV. The Action of the Empirical Ego. Interest

Sec. 15. As we have so often said, the influence of the broad unemphatic field of the psychic system can never be without its effect upon the nature of the emphases or presentations within consciousness. This broad systemic field is the field of inattention, *i.e.* the Self; and this Self when represented presentatively appears as that simulacrum of the Self which we call the empirical ego. Now we have seen in a previous chapter that this ego of experience has a marked effect upon attention in what we call distinctly voluntary attention; and as the algedonic quality is closely related to attention we should expect to note an observable influence from the empirical ego upon attention as it is related to the algedonic quality.

Sec. 16. If pleasure involves the ebullition of reserve energy it must tend to involve a spread of effects throughout the whole nervous system, which would thus tend to react in special ways that would certainly be moulded under the laws of development to bring about a tendency to the continuance of the activities of parts of the system which if once aroused to activity are able to act efficiently: for thus on the whole an economy of the energies within the system would be maintained. So far as this conservative efficiency of the nervous system has correspondents in consciousness it would appear in the action of such part of the broad psychic system as can be given as a presentation, viz. in the explicit action of the empirical ego; and we should be led therefore to expect to note an observable reaction of the empirical ego tending to sustain pleasant presentations in attention.

That this expectation is met in our experience is shown in the fact that it is possible to define pleasure, as Herbert Spencer[1] did many years ago as a record of his introspective

[1] *Principles of Psychology*, Sec. 125.

observation, as "a feeling which *we seek* to bring into consciousness and retain there."

Sec. 17. Mr. Spencer goes on to define pain as "a feeling which *we seek* to get out of consciousness and to keep out:" and this record of his introspective experience, which will be generally accepted, is found to be what we should be led to expect if our views are correct.

Pain, under our view, involves a tendency of the active nerve organs to cease their activities unless they are compelled to action by the reception of stimuli. But so long as the painful presentation is maintained, its maintenance involves activities in the nervous parts which must have their effect upon the whole nervous system. These systemic activities would certainly be moulded under the laws of development to the conservation of the system by bringing about a tendency to the discontinuance of the activities of the parts of the system which are compelled to activity, although this activity be inefficient. The lack of efficient outcome of the stimulus in the direction which gives us the pain will determine a transfer of energy to new courses opening above, if we may so speak, the point of inefficient action, a process which the conservative tendencies of nature will emphasize. This means the appearance of new foci of attention,—the "frittering away" of attention so far as the painful presentation is concerned.

Here again we see that so far as this conservative efficiency of the nervous system has correspondents in consciousness it would appear in the action of such part of the broad psychic system as can be given as a presentation; viz. in the explicit action of the empirical ego; and we should be led therefore to expect to note an observable reaction of the empirical ego tending to withdraw attention from the painful presentation, this being coordinate with the discontinuance of the activity of the inefficient nervous parts; and this expectation is met in the experience which is expressed by Mr. Spencer in the words above quoted.

Sec. 18. It will be evident to the reader that in a large part of the preceding sections of this division of this chapter we have been dealing with the problem of what is called "interest."

"Attention" says Stumpf[1] "is identical with interest"; but to maintain such a view is to overlook the patent fact that we often pay attention to that in which all would agree that we do not take the least interest; and this simply because we are forced to pay attention by stimuli which we cannot avoid. It therefore appears to involve an unwarranted use of terms to say that we are interested in anything that is not pleasant. Interest is our name for the maintenance of a pleasant presentation by the action of the psychic system; *i.e.* by the Self, which when represented in attention by its simulacrum appears as the empirical ego. If this is true it is improper to say that we ever take interest in painful states of attention. Painful states are of course often most vivid in attention; and as we have seen in earlier chapters no presentation can ever be said to be forced upon us quite apart from the action of the Self which always must have its influence upon the presentation maintained in attention. But this influence may be in the form of a welcome or of a rejection; and it is without doubt true, as we have noted above, that the Self, as represented in the empirical ego, always rejects a painful presentation. The painful states attended to are in the vast majority of cases due to excessive stimulations, using these words very broadly, which persist although the empirical ego rejects them and tries to make them cease; and these can therefore not be called interesting.

It is true that in some few cases pains appear to interest us in themselves. I have found myself, for instance, much interested, as one would say, in the pains produced by my surgeon in performing a minor operation without the use of

[1] *Tonpsychologie*, i. 68. Stout uses the term in the same way in the opening paragraph of the third chapter of his *Analytical Psychology*.

anaesthetics: but clearly in this case the interest was due to my study of algedonic-theory, and was really quite apart from the pain; it inhered in the agreeable presentations related to what we would usually speak of as curiosity in reference to these unusual experiences.

It is true also that interest may actually at times tend to sustain painful states, but I think only because they are involved with more vivid pleasures in which we may properly say that we are interested. The interest I have in attempting to complete the writing of this chapter induces me to persist in the work notwithstanding the moment's weariness which would naturally lead my attention to flag: but the interest must be apart from the pain, and must relate to some pleasure connected with the painful presentation, *e.g.* in this case to the working out of some particular thought.

Sec. 19. Interest then is the term we use to describe our sense of the action of the Self in sustaining in attention a pleasant presentation: when this action is distinct, the simulacrum of the Self, *i.e.* the empirical ego, also appearing as a partial presentation in a state of "self-consciousness."

The action of the Self, as explicit in the empirical ego, in rejecting pain is evidently closely allied with aversion.[1] This state is of course of much less importance in our life in relation to attention, because it means immediate loss of attention where the Self is markedly in control.

Sec. 20. It is often held that pleasure and pain are the determinants of attention,[2] but this I think is far from the truth. Attention, as we have already seen, is often due very

[1] It is to be noted that although Stout as above noted follows Stumpf, nevertheless he finds it useful to use the word aversion in describing what he calls "interest" in relation to pain. Confer his *Analytical Psychology*, p. 239; "Painfully toned attention is always constrained attention or *aversion*."

[2] Cf. Sully, *Human Mind*, pp. 162 and 163. I assume that he means pleasure and pain when he uses the word "feeling."

largely to the mere force of environmental stimuli. Stout is certainly right when he says[1] "there is an ambiguity in the statement that we attend to things because they interest us. . . . The coincidence of interest and attention is simply due to the fact that interest, as actually felt at any moment, is nothing but attention itself, considered in its hedonic aspect."

[1] *Analytical Psychology*, pp. 224-225. Confer also Pillsbury's *Attention*, p. 56.

CHAPTER XVII

THE ALGEDONIC QUALITY IN RELATION TO REALNESS AND MANIFOLDNESS

I. The Relation to Realness

A

Sec. 1. We have seen reason to believe that the algedonic quality is one that inheres in the hypothetical psychic element, corresponding with the grade of elemental neural efficiency. Realness on the other hand we have seen is a quality which inheres in complex presentations because they involve not only the immediately given major presentations but also revivals of past presentations through all of which common elements persist.

Realness being thus due to stability which is largely determined by the power and persistence of primary or secondary stimulations, there is no special reason why this stability might not occur in connection with either efficient or inefficient elemental responses, and therefore no reason why the corresponding presentations might not be either pleasant or painful. We should not expect then to find the realness of particular presentations varying directly with either the pleasure or the pain occurring in connection with them; in other words we should expect to find that the relation between realness and the algedonic quality in connection with particular presentations is indeterminate.

This expectation is certainly met in our experience; for no one would hold that all pleasant presentations necessarily display a high measure of realness, nor necessarily a low measure of realness; nor that all painful presentations necessarily display a high measure of realness, nor necessarily a low measure of realness. Nor can we say that the degree of realness attaching to a given presentation fixes in any direct way its algedonic quality. A very real presentation may be a painful one, or it may be a pleasant one; as for instance my present toothache, or the fragrance of the cigar I am smoking, respectively. So an unreal presentation may be disagreeable or pleasant; as for instance the witch, or the fairy godmother of the fairytale, respectively.

Sec. 2. But although no direct relation necessarily holds between pleasure or pain in connection with a given presentation and its realness, nevertheless so many cases occur in which pleasant and painful presentations are very real that it would appear that some indirect relation at least must obtain between realness on the one hand, and pleasure and pain taken together on the other. Upon second thought however we see that we are here dealing with a fact involved with the direct relation existing between attention, and realness as noted in the object-subject relation, which within limits tend to vary together. As we have seen above, our most vividly pleasant and painful presentations must involve attention; so they must tend to involve realness, and objectification of the presentation to which the realness attaches. To this matter we refer again below.

B

Sec. 3. While it thus appears that there is no direct relation between pleasure-pain and the measure of realness existing in connection with presentations that are pleasant or painful; on the other hand it is clear that we might expect

to discover the existence of a somewhat definite relation between pleasure or pain as connected with existing presentations, and the realness of the presentations *that are to be*. For as we have already seen pleasure in connection with a given presentation involves a tendency to the persistence of this presentation in attention; and this persistence must tend to involve, in the moments to follow, the stability of the presentation which will give it realness. On the other hand pain in connection with a given presentation involves a tendency to the failure of this presentation in attention, and this failure must tend to involve, in the moments to follow, the instability of the presentation which will give it unrealness.

Under this view then pleasure in connection with a given presentation should tend to give realness to its future revival, while pain in connection with a given presentation should tend to give its revival unrealness.

Such a statement as this is likely to be misunderstood if we overlook the fact that the algedonic quality is elemental; for we are wont to consider complex presentations in bulk as pleasant or as painful, when in fact only some elements of the complex are thus algedonically qualified. If our view is correct we should not expect the whole of such a so-called pleasant complex presentation to become necessarily more real in the future: all that we should expect to observe would be the increased realness, in the future, of the elements of the complex which are now pleasant. Similarly we should not expect the whole of such a so-called painful complex presentation to become necessarily less real in the future: all that we should expect to observe would be the increased unrealness, in the future, of the elements of the complex which are now painful.

Beyond this, although we should expect to note increased realness given to a complex presentation by the pleasure attached to one or more of its elements, nevertheless we

should be prepared to find this tendency thwarted by oppositions otherwise arising to the stability of other elements of the complex presentation, which thus as a whole may gain no increase of realness in the future, notwithstanding that pleasure attaches to certain of its partial elements. Similarly on the other hand we should expect to note that a complex presentation as a whole may lose little of its realness in the future, or may for other reasons even gain an increase of realness, notwithstanding that pain was originally attached to certain of its partial elements.

Practically all of the presentations of our active waking life are just such complex presentations as we have been describing, and it is evident therefore that we should not expect to find more than indirect evidence of a general drift in the direction of that relation between the establishment of realness-unrealness of future moments and the pleasure-pain of a given moment for which our theory leads us to look: such indirect evidence however we have in abundance.

Sec. 4. When presentations of certain types are persistently pleasant in a large proportion of the cases in which they occur, the descriptive term "pleasant" becomes indissolubly attached to them, so that they are always classed with the pleasures of life, whether they are pleasant or not in the moment of occurrence: joy, for instance, is generally thought of as a pleasant emotion, although as we know we may at times experience a joy that is so excessive as to be truly painful.[1] Similarly when presentations of certain types are persistently painful in a large part of the cases in which they occur, the descriptive term "painful" becomes indissolubly attached to them, so that they are classed with the pains of life whether they are painful or not in the moment of occurrence: fear, for instance, is generally thought of as a painful emotion, although at times we may experience a mildly pleasant fear.[2]

[1] Confer my *Pain, Pleasure and Aesthetics*, p. 295. [2] *Op. cit.* p. 293.

This being true we should expect to find that in the long run the presentations to which the term "pleasant" has become attached will tend to be thought of as real: and on the other hand that the presentations to which the term "painful" has become attached will tend to be thought of as less real or unreal. In other words we should expect to find ourselves thinking of the pleasant experience, of our past lives as the more real, and of the painful experiences of our past lives as the less real or unreal: and it is clear that this expectation is met in our experience.

The presentations which have unrealness are those which give to us the problems of life. This shifting shadow on the mist;—what is the reality involved? This vague and mysterious sense of influences affecting us apart from the recognized stimuli reaching us from the objective world;—what does it mean? The evidence in favor of some scientific hypothesis fails of complete realness, and leads the student to state a problem: the very questioning indicates that realness is lacking. If then pleasures tend to involve future realness, and pains tend to involve unrealness we should expect to find men looking upon pain, in itself as a whole, as involving a problem; but we should not expect to find them considering pleasure as a whole as involving any problem at all. Now as a matter of fact, as Prof. James has somewhere remarked, it never seems to us that there is such a thing as a problem of pleasure; even as we fail to wonder at the existence of those correlates of realness, Truth, Goodness, and Beauty, and the Real in general. But on the other hand men very generally do set for themselves the problem of pain;—that is we feel that, in relation to pleasure, pain taken as a whole is unreal, and we attempt to harmonize with the Real in the universe the existence of this pain, and of its correlates, Error, Evil, and Ugliness, and the Unreal in general. We set for ourselves these problems as to the existence of Pain, Error, Evil and Ugliness only because of

a deep seated conviction that they display marked unrealness, and that Pleasure, Truth, Goodness and Beauty are more real.

The fact that painful presentations tend to become unreal in retrospective states is further vouched for by the existence of those who teach that the suffering of an individual can be alleviated if he can be made to believe that pain is intrinsically unreal; a teaching which in our day is emphasized by that large body of men and women who call themselves Christian Scientists, Metaphysical Healers, Faith Curists, etc. None of these worthy people attempt to make converts by teaching that the pleasures of life are unreal; although of course such truth as there is in their theses applies as well to pleasure as to pain. Apparently they have unwittingly grasped the fact that painful presentations tend to become unreal, as is not the case with pleasant presentations. With this fact before them they proceed naively and illogically to step from one realm of realness to another, carelessly shifting from the realm of presentations which they describe as "purely mental states" to that diverse realm which we speak of as "objects in the outer world." Appreciating that pain has a fundamental tendency to unrealness, they leap to the unwarranted conclusion that the realities which carry pain with them are intrinsically unreal. Convinced of this unrealness of painful presentations themselves, they jump to the conclusion that disease, which is a fact in "the outer world" part of consciousness, is *in like manner* unreal; a conclusion from the premises which is entirely unwarranted.

A bit of corroborative evidence which each of us may experience, is found in watching the natural development of thought in "day dreaming," when we deliberately cut off, so far as possible, all sources of connection with the stimulation from the outer world, and avoid, so far as may be, all guidance from the Self;—when we let Fancy have full sway.

In such moments it is the world of what we call "pleasant things" that becomes for the time the real world for us. If its unrealness is for a brief moment forced upon us, we often voluntarily cast off this unrealness, and establish a "make believe" world in which the natural flow of Fancy, the natural series of recurrent "pleasant thoughts" is the real world for us.

Even the very young gain the habit of identifying their pleasures with realness. I find that the boys and girls of my time and environment are wont, in the language of their slang, to speak of an object of admiration, or of a present delight, as "the real thing." But as we have seen above we can only be expected to observe this tendency distinctly "in the long run." The vivid life of the present, or of what we call the just-past, is so disturbed by stimulations which alter the natural development of presentations that we must look for a stronger and stronger feeling of this relation of realness to pleasure as life progresses, and as memory unfolds before us more and more of the pages of experience for our contemplation. And, as a matter of fact, as we grow older, the tendency to identify the memory of pleasure-experiences with realness becomes more and more evident. It is embodied in the conviction that life, and the conditions of life, in our past were more enjoyable than those of the present. We long for the "good old times," our ideals are in things of the past; a fact which becomes more and more marked as age increases, until we find the very old, whose powers of receiving stimulations from the environment are dulled, living in a dream-land peopled with the friends of their youth, and occupied with thoughts of what they call the happy days of childhood and adolescence, which in fact were as full of pains of excess and disappointment as any in later life.

Sec. 5. It may be well for us to refer briefly to a difficulty which will occur to many who have suffered deeply, for in such cases it cannot be denied that presentations to which

the word pain is attached persistently recur in the consciousness of many men, and are very real for them. But it is to be noted that they are real in a narrow sense, as present experiences; and not in the broader sense in which the wealth of life's experience is considered. There is no proof, as is claimed by some pessimists, that our past pains are revived more persistently than our past pleasures. The claim is dependent upon the fact that pains when recurrent attract more attention than pleasures when recurrent: we are active in attempts to get rid of the pains: we in general let the pleasures run their full course.

These persistent pains are due in part to persistent recurrence of excessive stimulations which produce pain. But much more often they consist of the thwarting pains due to obstruction of the natural development of our presentations: such for example are the persistent pains which occur in connection with the loss of those whom we have loved deeply: pains which are persistent and real in our present just because, and only because, of the ever pleasant movements of attention which are ever thwarted. The natural flow of attention developes in directions indissolubly bound up with the thought of the life of our deceased friend; and this flow of attention is itself pleasant, a fact which is usually overlooked: but in such cases, with each such pleasant development arises a thwarting as the fact is forced upon us that our friend is dead; and this thwarting involves a pain which attracts attention. That this is the source of these persistent pains is shown in the fact that if we can but "make believe" that our friend is still with us, and allow the flow of thought to develope on that basis, the thwarting pain does not occur. It cannot be doubted that this "make believe" comfort has had much to do with the establishment of the belief in the near presence of, and the future companionship with, those friends who have died.

II. The Relation to the Object-Subject Relation

Sec. 6. Having in the preceding sections considered the relation of the algedonic quality to realness; and having, in the preceding chapter, studied the relation of the algedonic quality to manifoldness; we are now prepared to turn our thought to the relation of the algedonic quality to the relation between realness and manifoldness which, as we have seen in Chapter xv., gives us the object-subject relation.

As that which we appreciate as attention, when we consider the whole noetic pattern of a given moment, is the relation between the intensity developed in part of the whole complex presentation, and the manifoldness developed in the rest of the psychic field; so what we appreciate as the object-subject relation is the relation between the realness developed in part of the whole complex presentation, and the manifoldness developed in the rest of the psychic field. We should expect therefore to find in the relations of the algedonic quality to the object-subject relation certain similarities with the relation of this algedonic quality to attention; and this expectation we find fulfilled.

Sec. 7. In our study in Chapter xvi. we considered first the relation of the algedonic quality to the intense focus, and to the manifold non-intense field, which together make up the whole field in which attention developes; so here we may well consider first the relation of the algedonic quality to the object in which realness inheres, and to the subject in which manifoldness and a relative lack of realness prevails, which together make up the whole field in which the object-subject relation is developed.

That relative lack of realness prevails in connection with the subject in this object-subject relation has already been shown, so far as is appropriate here, in Sec. 2 of Chapter xv., and in the interest of brevity I shall ask the reader who may

be interested in this point to refer back to this section in this connection. We may turn then at once to consider the relation of the algedonic quality to the object in this object-subject relation.

Sec. 8. As intensity and realness tend to vary together, and as intense presentations tend to become the foci of attention, so as we have seen[1] very real presentations tend to bring to us the appreciation of the object-subject relation. As vivid pleasures and pains involve intensity in the presentations which they qualify, pleasant and painful presentations become our most important foci of attention;[2] and correspondingly we might expect that so far as pleasures and pains are real as such they will tend to be objectified in the object-subject relation.

Pleasures however are so notably evanescent that their realness is maintained but for short spaces of time, and we consequently have little tendency to objectify them, so little in fact that pleasure, as we have seen, is assumed usually to be distinctly subjective, *i.e.* attached intimately to the subject rather than to the object in the object-subject relation. Pains too are found to be evanescent when not forced upon us, and as such they share with pleasures the attribution of subjectivity; less distinctly however because of the prominence in our experience of pains which are forced upon us, and which are not thus evidently evanescent. And these pains thus forced upon us become very real, and are at times very distinctly objectified, *i.e.* attached to the object in the object-subject relation. This is shown in the fact that we localize pains in various parts of the body, a very clear case of such objectification being given where one who has had a leg amputated locates his pain in the foot that no longer exists.[3]

Beyond this it becomes clear that both pleasures and pains which are relatively permanent in retrospect are objectified in

[1] Chap. xv. Sec. 4 ff. [2] Cf. Chap. xvi. Sec. 11.

[3] Confer my *Pain, Pleasure and Aesthetics*, chap. i. sec. 8.

the fact that we attribute an objective nature to our concepts of Beauty[1] and Ugliness which are dependent upon the existence of this relatively permanent pleasure and pain respectively in connection with given presentations.

Sec. 9. But, as we have seen, not only pleasant and painful presentations, but also indifferent ones may be attended to: so we should expect to note that indifferent presentations might well be objectified, especially as we have seen in Section 1 of this chapter that the relation between the occurrence of the algedonic phases and realness is indeterminate. As a matter of fact introspective examination serves to show us that actually many of the most real and objective of our presentations are what we call thoroughly indifferent ones.

The reader will recall that we have seen in Chapter x., Sec. 4, that in cases where the fullest of realness exists we often fail to appreciate its existence altogether; at the same time the very real presentation in general fails to appear in the focus of attention, which fact involves that absence of pleasure or pain emphasis which leads us to speak of the presentation as indifferent. It is natural then that we find such very real presentations thoroughly indifferent;[2] and we find them also failing of objectification unless their realness is brought into prominence by the raising of opposition in the form of doubt, when it becomes explicit; they are then clearly objectified although thus thoroughly indifferent.

[1] The reader will recall Santayana's definition of Beauty as objectified pleasure.

[2] The interpretation of this fact on its physical side is simple, for under the theory of pleasure and pain which we defend there can be no pleasure or pain in connection with a given presentation unless the coincident neural activity is relatively excessive; it must either be using surplus stored energy, or else be draining the system: and where the neural activity coincident with a presentation assimilates very fully with the "neururgic pattern" of the moment, as it must when the conditions of the fullest realness prevail, it cannot be excessive in relation to the activity of the system as a whole.

This connection of realness with indifference becomes clearer when we note that if a presentation to which is at first attached a vivid pleasure or pain loses its sense of novelty *in toto*, and becomes thoroughly real, then the pleasure or pain which was once attached to it is likely to disappear: with the thorough assimilation of the presentation with the whole of consciousness, *i.e.* with its increase of realness, comes loss of attention and also indifference. Even the most tender of married lovers come to a state of undisturbed, all but indifferent, acceptance of each others characteristics. The two souls are fused as one; the realness of each for the other is complete; and all algedonic emphasis is lost.

On the other hand we may speak in this connection of certain cases in which an actual decrease of realness is closely connected with distinct pleasure and pain, which goes to show the indeterminateness of the relation of realness to the algedonic quality. With the questioning of doubt goes a disturbance of calm; with it goes a tendency to more or less marked conditions of attention which always tend to be colored with pleasure or with pain. Doubt as to the realness of a presentation involves an act of attention with which goes an obstructive pain due to the curtailment of the development of the idea which, although sometime real, has for the moment lost its realness. And again if after the doubt there follow an assertion of belief in the realness of the presentation about which question has arisen, then to this assertion of belief is attached a pleasure in connection with relief from the strain of doubt, *i.e.* in connection with the breaking down of the incompatibility existing between the two opposed measures of realness. There will be a bit of the doubt pain mixed with the pleasure attached to the assertion of belief: but this will soon be lost by the shifting of attention due to the development of the pleasant presentation.

Such pains and such pleasures as we are here describing are connected with the process of the *attainment* of a full real-

ness; and the less of opposition to this realness in doubt, and the less of assertion of belief;—in other words the nearer we approach to the establishment of a realness which brooks no questioning;—the nearer do we approach to a total inattention to the realness itself; and this inattention involves in general a state of indifference with reference to the presentation directly involved.

III. The Action of the Empirical Ego

Sec. 10. As we have so often said, no presentation, and no general quality of a presentation, can exist as real altogether apart from the influence of the mass of the psychic system, *i.e.* the field which is preeminently qualified by manifoldness, which is the Self, which when presentatively explicit appears as the empirical ego.

As we have seen, pleasant presentations tend in themselves to become real in future moments; yet they cannot maintain this realness without the effective welcome from the Self. But the pleasure itself implies an efficient action in a neural part, which action in itself as we have already seen must in general be welcomed by the reciprocally aroused effective action of the physical system; and correspondingly we should therefore expect to note a tendency on the part of the psychic system—the Self as explicit in the empirical ego,—to enforce the realness of pleasant presentations. And this we do note; for we agree that Spencer is warranted in holding, in his words already quoted, that "pleasure is a feeling which *we seek* to bring into consciousness and *to keep there*": *i.e.* to render stable or real, and to objectify. It may be added that but for the action of the whole psychic system, *i.e.* the Self, we find it difficult to account for the strengthening of our sense of the realness of pleasant presentations as a whole which leads us to persist in maintaining the realness of pleasure as such,

notwithstanding the patent fact that the pleasure connected with any specific presentation is, as we have seen, notably evanescent and unstable.

Painful presentations on the other hand tend in themselves, as we have seen, to become unreal; and if the organic species in which they occur is to survive, this tendency must on the whole be enforced by the physical system, which has as its correspondent the psychic system, *i.e.* the Self. The pain itself implies an inefficient action in a part, which action in itself must in general be rejected by the physical system which as a whole is not aroused to efficiency by the inefficient action in the part. We should therefore expect to note a tendency on the part of the psychic system—the Self, as explicit in the empirical ego, to enforce the unrealness of pain; and this we do note: for again we agree that Spencer is warranted in holding, in his words already quoted, that "pain is a feeling which *we seek* to get out of consciousness and *to keep out*": *i.e.* to render unstable or unreal, non-objective. To the failure of the Self to welcome the painful presentation,—to its active rejection of the presentation so far as experience has formed appropriate "psychical dispositions" within the psychic system, is due the weakening of our sense of the realness of painful presentations as a whole which leads so many men to persist in thinking of pain, as such, as unreal, as non-objective, as a mere subjective imaginary state, notwithstanding the fact that pain, and disease which brings us pain, are so persistently forced upon our attention during the whole of life.

What we have said above is corroborated forcibly when we consider our tendency to self-sophistication in relation to pleasures and pains: for no one will question that we all have a tendency to persuade ourselves that what is pleasant is true (*i.e.* real) and that what is unpleasant is false (*i.e.* unreal). In such cases we recognize in reflection that the empirical ego has been effective in establishing the realness of the pleasant presentation and the unrealness of the painful one.

As we have seen, this action of the empirical ego in relation to realness where explicit involves belief; and we should expect therefore to find, as we do find, that pleasant presentations which involve futureness are welcome and become real as expectations[1] and are believed in as such; while on the other hand the mass of painful presentations involving futureness disappear as expectations; we refuse to believe in the realness of such presentations if they are painful,—we refuse to expect them,—we persist in hoping for a better outcome: "hope springs eternal in the human breast."

It is evident however that we are here touching upon questions which may be better studied in Book III. where we treat of the nature of the Self, and of that simulacrum of the Self which we call the empirical ego. We shall therefore content ourselves with this brief consideration and turn to our next problem.

[1] The relation of expectation to belief is considered in a later chapter.

SUB-DIVISION II. THE TIME QUALITY IN RELATION TO THE GENERAL QUALITIES OF GROUP I

CHAPTER XVIII

THE TIME QUALITY IN RELATION TO INTENSITY AND MANIFOLDNESS

Sec. 1. In the two chapters preceding this, we have considered the relation of one of the general qualities of presentations included in Group 2, viz. the Algedonic quality, to the general qualities of Group 1, viz. Intensity, Manifoldness, and Realness. In this sub-division we turn to the study of the relation of these general qualities of Group 1 to the other general quality of Group 2, viz. the Time Quality; and in this chapter begin with the consideration of the relation of the Time Quality to Intensity and Manifoldness.

If our view is correct each presentation must display some measure of intensity and of manifoldness, while at the same time it must display also in some degree the characteristics which may lead to the appreciation of one of the time phases. We must enquire in the first place whether in connection with this coexistence, any definite time phase is implicated with either a notable degree of intensity or of manifoldness.

I. The Relation to Intensity

Sec. 2. The Time Quality, under our view, is determined by the form in which complex states of consciousness develop; the special time phase being due to the relation existing, within the complex of a given moment, between the reinstatements of minor secondary presentations which have been given in previous moments. Intensity on the other hand is a quality of the psychic element which is correspondent with a high degree of activity in a physical element as this is measured by objective standards; intensity as appreciated being inherent in relatively narrow parts of the very complex presentations in connection with which the several time phases are aroused.

As then only a limited part of the whole presentation of any moment is distinctly intense, it would seem improbable that this intensity would be likely to determine any special time phase in a presentation so complex as one must be if in connection with it a time phase is to become explicit. In other words we should not be led to look for the existence of any determinate relation between marked intensity, and the time phase of the presentation in which this intensity appears.

This accords with our experience. We find that a presentation which involves presentness may be more or less intense or vivid; and the same may be said of presentations which involve pastness or futureness. And again an intense or vivid presentation may equally well have an inherent pastness, or presentness, or futureness, at the moment of its appreciation as intense.

Sec. 3. On the other hand it is clear that a presentation of high intensity which is fixed is likely to involve the condition of stationary complexity to which under our hypothesis is due our appreciation of presentness; and equally clear that such conditions of fixed intensity are given most frequently in

connection with the action upon us of stimuli from our environment. We should expect therefore to find that in reflection upon past states our vivid sensations and percepts would tend to be distinctly lacking in pastness and futureness, and distinguished as involving presentness. That this expectation is met in our experience is clear. The sharp cutting sensation, the intense sound, as considered in reflection are *now here*. "Actual sensation" says Stout[1] "is the mark or stamp of present time. The present time, as distinguished from the past or future, is the time which contains the moment of actual sensation." It is practically impossible for us to appreciate a very vivid sensation in itself as being past or future, or as being anything else than of the present.

Next to mere sensations in order of vividness in attention are our percepts; and here too we very generally find involved the strong sense of presentness. This page upon which I write, when I reflect upon it, is so clearly in the "present" that it is very difficult to think of it as involving anything of pastness, or of futureness: it is existent in the "specious present."

II. The Relation to Manifoldness

Sec. 4. Each presentation which displays a time phase must also display some measure of manifoldness, which upon occasion may be very marked. The quality of manifoldness is not elemental as intensity is, but is a quality which is determined by the complexity of presentations, and under our view without such complexity the time phases themselves could not appear. Thus we should expect that the clear appreciation of the time quality of a given presentation would in a measure be coordinate with an appreciation of manifoldness; yet as each of the three time phases involves this mani-

[1] *Manual of Psychology*, p. 389.

foldness, we should not expect to note that a marked degree of manifoldness necessarily implies the existence of any special one of the time phases.

This agrees with our experience. Presentations which display a notable manifoldness may, in the moment when the manifoldness is explicit, display either pastness, or futureness, or the transitional presentness: such a thought for instance as "the sidereal system" is distinctly qualified by manifoldness, and it may be appreciated as well as it has existed, as it is, or as it is to be. So also presentations qualified by the diverse time phases may vary greatly in manifoldness: the idea of the pin prick which I am about to receive, and the thought of the warmth of the fire in the house I am approaching on a cold day, both have marked futureness but vary greatly in manifoldness: so the thought of the neuralgia of yesterday, and that of the conception of the long line of my ancestors, both have marked pastness but vary greatly in manifoldness: similar variations of manifoldness in connection with presentations which involve the sense of presentness will readily occur to the reader.

Sec. 5. If the positions maintained in what has preceded this are well taken, a presentation which has the quality of pastness is one which is tending to reduction of complexity and therefore tending to lose manifoldness; while one which has the quality of futureness is gaining complexity and therefore manifoldness; and if this is true it may occur to some reader that comparison of a presentation in which pastness is prominent, with one in which futureness is prominent, should invariably show a greater manifoldness in favor of the presentation which has the quality of futureness. This however is evidently not corroborated by experience: for as I have said the stream of consciousness in coming to us seems to leap suddenly over a ledge as it were, while in going from us it seems to flow away over a plain the limits of which are broad and ill defined: that is, the future comes upon us under conditions

which seem to restrict us within more or less narrow limits, while the past seems to stretch away without bounds.[1] In other words there would appear to be more of manifoldness connected with the past than with the future, and this it might be claimed is the contrary of what we might be led to expect.

But if this appears as an objection to our view it is because our position is not thoroughly comprehended. If appreciated manifoldness is our apprehension of the complexity of the presentation in connection with which it appears, and if our theory as to the basis of the time quality is correct, it is clear that no difference of mere degree of a presentative manifoldness *per se* will affect the time flow, which will only be affected provided this difference is appreciated as of changing form within the complex presentation considered: the time quality indeed would not exist but for the complexity of presentations; yet it is not this complexity itself which determines the time quality, but rather a special characteristic of this complexity. Now it is not held that any comparison of two presentations as to their amount of manifoldness determines the time quality, as is implied in this objection;—in fact such a relation has just been specifically denied: but we make just such a comparison when we think of the future part of the stream

[1] This fact is evidently the result of the complex processes of assimilation which *have affected* the systems which are active in the production of presentations in which pastness is prominent, which on the other hand have but *just begun to affect* the presentations which involve futureness. The presentation which has pastness is the conscious coincident of an active nervous system in which countless elements of unnumbered minor systems are throbbing as they would not throb but for the experience which is past and gone; and is therefore likely to be very complex, *i.e.* qualified markedly with manifoldness. The presentation which has futureness, on the other hand, is the conscious coincident of an active nervous system which is being affected by forces which are leading to the production of new forms of activity, which however have not yet spread themselves beyond relatively narrow limits within the broad complex system with which our complex consciousness is related.

of consciousness in its relation with the past part of the stream in respect to the manifoldness of each part. What is held is that the complexity of a given presentation, *whatever its degree may be*, as held in attention presents, in contrast with the stationary complexity of the "specious present," either a simplifying complexity in the case of pastness, or a developing complexity in the case of futureness.

Sec. 6. Although the relation between manifoldness and the phases of the time quality is thus indeterminate, nevertheless, as some degree of manifoldness must exist if the time quality is to exist, we might expect that as the degree of *noticeable* manifoldness varies the noticeableness of the time quality in either of its phases would likewise vary; and that where manifoldness is not easily discerned then timeness will not be easily observable. But as intensity and manifoldness are inversely related, indiscernibility of manifoldness involves distinctness of intensity; hence we should not expect to find the time quality clearly appreciated in connection with our apprehension of intense presentations. And as a matter of fact the time phases of intense and vivid presentations (*e.g.* our sensations) do not concern us: the time phases are brought to our attention in connection with the manifold presentations of our reflective states. This is of course a matter of degree; but I can easily imagine that, if one were suddenly awakened to fully developed conscious life looking at a brilliant light, the vivid punctual sensation given would involve no appreciation of time whatever. Of course we cannot actually experience any such perfectly simple punctual state; and thus all of our experience, involving more or less of manifoldness, at the same time involves, as we have seen, the more or less explicit appreciation of that form which in reflection we speak of as the Time Quality.

III. The Relation to Attention

Sec. 7. In a large proportion of the moments of experience our presentations display an intensity set over against, and related to, a field of manifoldness in what we call attention; but as neither marked intensity nor marked manifoldness involve the emphasis of any special time phase we should not expect to note, in connection with a presentation as attended to, any more determinate relation to special time phases than we find between them and intensity or manifoldness. This expectation is surely met in our experience, for clearly a presentation attended to may as well display pastness, or futureness, or may display neither and may thus involve the sense of presentness.

Sec. 8. But if this is true it is equally clear on the other hand that processes of continued attention might be expected to affect noticeably the time phase in connection with *subsequent* retrospective presentations. For this continued attention involves the maintenance of the intensity of a given minor presentation in contrast with the rest of the psychic field, and this maintenance as we have seen tends to give us a sense of presentness especially in connection with attention to sensational and perceptual presentations, which in retrospect are appreciated as having been distinctly present. It is true of course, as we have already seen, that even these sensations and percepts upon close inspection appear to have their backward and forward "fringes"; but so far as we attend to them we attend to what we appreciate as being now with us,—in this present. It is also true that we may attend to what we speak of as sensations and percepts of the past and of the future; but then we are attending, not to the immediate revivals of sensations and percepts themselves, but to "images" or "representations" far removed from these immediate revivals of sensations and percepts; and these

images and representations themselves are appreciated as "now here."

Sec. 9. As under our hypothesis a presentation has the quality of pastness because it exhibits a simplifying complexity, pastness must ever be of less importance than presentness in the arousal of presentations; and in retrospect it should therefore tend to lose force in the field of attention in relation to what is experienced as present. This is surely in accord with experience; for we find it difficult to hold our attention upon the past in the face of the ever living present, which is in a vast majority of cases the time quality of the presentations to which we attend. We must separate ourselves away from, or cut off, the prominence of environmental stimuli if we are to enjoy the delights of reverie and reminiscence, or gain the advantage connected with contemplation, and deliberation.

Sec. 10. Apart from the conditions of fixed complexity determined by environmental stimulation we might expect to note a tendency to an association of attention with futureness. For, as we have seen in Chapter VIII., Sec. 7, the maintenance of a marked intensity in relation to the field of manifoldness in attention really means an increase of what we have called elemental intensity. Such maintenance of an intensity must therefore always involve a "budding" of new minor emphases within the minor presentation whose intensity is thought of as fixed. But as this "budding" is of the essence of futureness we should expect to note a general attribution of futureness to attention considered as a process.

That, notwithstanding the presentness of the vivid attention which is most common in connection with the sensations and perceptions of every day life, we do thus generally concede the existence of a special relation between attention and the sense of futureness is evident in the fact of which Stout[1]

[1] *Analytical Psychology*, 1, p. 184. Cf. also Sully, *Human Mind*, 1, p. 151; also S. Hodgson, *Metaphysic of Experience*, vol i. pp. 172-174.

speaks, viz. that the original meaning of *attendere* is to expect or await. As he says "a certain prospective attitude of mind is characteristic of attention": that is when we view the movement of attention as a whole, as we must do in the very process of giving it a descriptive name, we then actually tend to overlook altogether the ever-presentness of vivid sensational and perceptual attention and to emphasize the futureness aspect of attention as a whole.

Sec. 11. If what we have said above is true, then successive presentations of *decreasing* intensity which are held in attention might be expected to affect the form of the complexity of the presentation in a later moment, and in an opposite manner to that above described, and might be expected to carry with them in the retrospective presentation a sense of pastness. We certainly do gain this sense of pastness in cases where we note that we are failing to hold a given presentation in attention, the "object of attention" is appreciated as "slipping away from us," and being lost in that broad stream of what is past and gone.

Sec. 12. On the whole then we may well say with Dr. Stout[1] "In general temporal perception is bound up with the process of attention. The present is characterized by the actual sensations which serve to guide and determine attention at the moment. The primary experience of 'futureness,' if we may allow the expression, is involved in the essentially prospective nature of attention. The primary experience of 'pastness' is involved in the cumulative effect of attention on its own process."[2]

[1] *Manual of Psychology*, p. 391. I have taken the liberty to change the order of Dr. Stout's sentences.

[2] It is interesting in this connection to note the use which our later composers of the musical drama have made of this relation between the time phases and changes of intensity as attended to. Wishing to suggest a notion of some theme arising in an anticipatory form in the mind of his hero, the composer increases the tonal force of the musical "motif"

IV. The Action of the Empirical Ego

Sec. 13. As the efficiency of the Self, as explicit in the efficiency of the empirical ego, is clearly manifested in relation to attention, we should look for manifestations of this efficiency in connection with attention in its relation with the time quality.[1]

When we experience intense sensational and perceptual presentations we find it difficult to note the action of the Self in influencing attention, so much so indeed that as we have seen we commonly speak of this type of attention as involuntary. But as we have also seen these very intense sensational and perceptual presentations give us our most vivid appreciation of presentness: hence we should expect to find a general attachment of attention of the so called involuntary type to presentness; that is we should in general find it unusual to note the action of the Self in maintaining attention upon presentations in connection with which the time forms futureness and pastness are not noticeable. And this I think is clear in the very fact that experiences of attention to sensational

which he makes to correspond with this theme; in so doing necessarily increasing its complexity. Wishing to raise in our minds the thought of the forgetting of this theme by his hero, or of its existence in his mind as a mere reminiscence, he decreases the tonal force; at the same time decreasing the tonal complexity of the notes of the "motif."

[1] So marked is this efficiency of the empirical ego in relation to the time phases that the very essence of the temporal quality has been thought by some psychologists to lie in the attitude towards the given presentations of the psychic system as developed in our self-conscious states. Thus R. A. P. Rogers (*Mind*, N.S. No. 53, p. 70) goes as far as to claim that desire, which involves the appreciation of the efficiency of the empirical ego, "is the subjective element which gives a meaning to the distinction between the Past and Present. The mind is passive in relation to the Past, active in relation to the Future. Without desire there can be no self-conscious existence in Time." Dr. Hodgson is also claimed to advocate a similar conception.

and perceptual presentations, which are distinctly appreciated as being in the present, give the basis for the claim that certain types of attention are involuntary, are altogether forced upon us, *i.e.* are not determined in any way by the nature of the Self.

Sec. 14. If however we eliminate from consideration these cases of attention due to powerful stimulation we should expect to find that the efficiency of the Self will be more likely to be evinced in reference to presentness where under our view complexity is fixed, then in reference to pastness which is given in connection with simplification of complexity, and at times even more likely to be evinced in reference to futureness where complexity is developing. For the development of complexity (futureness) will in general be more liable to arouse the whole psychic system—*i.e.* the Self, than fixed conditions of complexity (presentness); and both fixity of, and developing complexity always more liable to arouse the Self than conditions of simplifying complexity (pastness). And evidently this tendency must be emphasized by natural processes: for the exigencies of the struggle for survival must have tended to enforce the habit of giving less prominence to what is past in reference to which we are no longer called upon to react; and more prominence to the present in connection with which reaction is demanded, and to what is coming to us in the future for which preparation is demanded if appropriate reaction is to take place.

If then we eliminate the enforcement of attention by environmental stimuli we should expect to discover a tendency of the Self, as explicit in the empirical ego, to enforce the concentration of attention upon pastness less than upon either presentness or futureness. And it seems clear that this expectation is met in our experience. It is only by strenuous effort that the average man keeps his attention sufficiently upon the presentations in connection with which pastness is developed to enable him to make use of the teachings of his

experience in life. For the most part we are as stupid in this respect as all animals: we deal so largely with the present and with the future, and with such difficulty keep our attention upon the past, that we fail all too often to guide our lives in accordance with what we should learn from the occurrences of that past.

CHAPTER XIX

THE TIME QUALITY IN RELATION TO REALNESS AND MANIFOLDNESS

I. The Relation to Realness

Sec. 1. The Time Quality and Realness under our view are both qualities which are determined by the complex nature of presentations; and which are appreciated in states of reflection. These states of reflection are special forms of the "now" of experience in which we have before us in emphasis not the whole of this "now" itself, but a somewhat within it which we call a revival, or representation, or idea, of a somewhat that has been, in which we discover both the time phase and the realness qualifications. It may be well then here again to note that we are to consider in what follows not the relation of realness to the "now" of experience,—to the "real present" as it is sometimes called,—but the relation of realness as it appears in reflective states to certain qualities of those reflective states in which appear the temporal forms, pastness, and futureness, and at times what we call presentness.

A difficulty is likely to arise in this connection if we overlook the fact that presentness when it is observed, inheres in the "now," exactly as pastness and futureness do. In other words presentness when noted is as much attached to a form of revival as are either pastness or futureness when they are

observed, and this presentness has, as we have seen, been distinguished from the "now"—the "real present"—by Mr. Clay and others as the "specious present." When I refer to presentness in what follows I refer to this so called "specious present" and not to the "now" in which it, as well as pastness and futureness, appear.

Sec. 2. Before we undertake the study of our main problem however it may be well to say a word about the relation of realness to this "now" of experience; for it is significant that the designation of this "now" as the "*real* present," in contradistinction from the "specious present" of reflection, is acceptable to most of us. In this we of course have a record of introspection which we may describe by saying that as considered in reflection the "now" of experience, as such, has marked realness. What we mean by this is that we recognize that the "now" of experience,—the existing presentation or emphasis in consciousness,—is what it is because it is assimilated, if but for the moment, with the remainder of the consciousness of the moment,—*i.e.* with the whole of the psychic system.

Our very conception of realness is thus bound up with our experience of the "now." But this special quality,—this realness,—which always accompanies this "now" as such, is found to exist in certain degrees in other cases where in reflective experience we view certain partial presentations within, and in relation with, the whole of the field of emphasis. It is from this "real present" then that we carry over the conception of the quality more or less of which we find inhering in the diverse realms of realness which we look upon as existing apart as it were from this "now" of experience, although they of course always exist in a "now," which always is real as such.

A. Realness and Presentness

Sec. 3. We are to consider here then the relation between realness on the one hand; and pastness, presentness ("specious presentness"), and futureness; as viewed in reflection: and as a matter of convenience we may well begin with the consideration of realness in its relation with that transitional state in which futureness and pastness are lacking, and which we describe as presentness.

If it is true that any partial presentation within the whole presentative field will have in reflection more or less of realness according as it assimilates more or less fully with this presentative field as a whole; then it would appear that we should be able to observe partial presentations which display presentness and at the same time varying degrees of realness: for evidently the relative fixity of complexity which yields presentness would not necessarily involve any determinate amount of assimilation with the field of reflection above referred to.

That some "presents" as given in reflection are so thoroughly real that no question is raised in connection with them is clear: but it is equally clear that others are so much less real that doubt does arise in relation to them; were it not for this fact we would never be led to the conception of the unrealness of illusions, or of our memories of dreams, in connection with which presentness is clearly marked.

Sec. 4. On the other hand it is clear that a tendency to the coordinate variation of realness and presentness is to be looked for if our hypothesis as to the basis of the time quality is correct: for under that hypothesis presentness is a transitional phase determined by a momentary fixity of complexity, and such fixity would in general be coordinate with the stability of certain minor presentations in successive noetic patterns observed in reflection, although it would not neces-

sarily imply such conditions of stability.[1] It is natural then to find that those presentations in connection with which presentness is noted are as a rule also preeminently qualified by realness. It is the present experience which we seldom hesitate to say is a real experience, and it is our sensational-perceptual experience, which as we have already seen is preeminently real, which is also thought of as most markedly present.

All this is quite in accord with the fact considered in previous chapters, viz. that intensity and realness tend to vary directly: for as we have already seen that intensity tends to involve presentness, so here we discover that realness tends to involve presentness.

Sec. 5. Each "present,"—each presentation in connection with which presentness as a special sense of relation is markedly developed,—must of course as a presentation display the time quality as a whole; it is a bit of what is called the stream of consciousness, and has the essential characteristics of that stream. In other words as every presentation must have in it the elements which if emphatic enough might give it recognized pastness, and also those which might give it a recognized futureness, so must the presentation in which presentness is marked. Evidently such a presentation may vary in character as this pastness, or futureness, tend to become important in attention, but in so far as they do become important the importance of the presentness itself, as such, must disappear.

Quite apart then from the fact that presentness and realness may vary in connection with given presentations (see Sec. 3 above) the stability,—the realness,—of presentness as such

[1] This of course does not mean that realness and presentness are to be identified; for under our hypothesis the fixity of presentness relates to the complexity as such, while the fixity of realness relates to some special minor presentation which is maintained in successive noetic patterns which are differentiated and compared within this complexity.

must be subject to distinguishable variations of degree, which are determined by the greater or less intrusion as it were of the hitherto unemphatic pastness or futureness as the case may be.

Naturally this transition from realness to unrealness in connection with the presentness in such cases can be recognized only by careful introspection. Yet in the case of the intrusion of pastness this transition state is clearly brought into view in the very recognition of what we have been speaking of as the "specious present": for in this recognition we actually see the realness of presentness fading into an unrealness, as pastness becomes prominent, and as we appreciate that the experience we have been calling "present" is strictly speaking real only in what is an experience qualified by pastness. The breaking into prominence of futureness, and the consequent breaking down of the realness of the presentness, is seen in the recognition of the fact, which comes to many of us especially if we are of scientific bent, that this present from one point of view has realness only as it points to an effect in the future, a view which is at the root of all teleological conceptions.

Here we discern the importance of the fact, previously considered, that this presentness is always but a form of transition between pastness and futureness. Thus it happens that just as soon as we appreciate an unrealness in connection with a present we tend to lose sight of the presentness; we at once find ourselves looking upon it from quite another point of view, projecting it into another realm of realness. While it may still be appreciated as a state of mind which has presentness as a phase of thought, if at the same time it appears preeminently important in a realm of pastness it takes on the character of a reminiscence of what has been but is not now real as an experience, or as a pure imagination or fancy in the past; or if it appears preeminently important in a realm of futureness it then takes on the character of an

idea of what is not now real as an experience, but of what may be looked forward to as possibly to become real: and these differences appear according as the pastness or futureness quality becomes marked when the presentness drops out of prominence.

Just so far then as the presentness of a presentation becomes unstable;—unreal,—just so far does the presentation it qualifies tend to lose its character as a present experience. Thus presentness comes to be closely bound up with realness; and thus it is that when we consider the realm in which presentness prevails in comparison with the realms in which pastness and futureness prevail, these latter appear to fail of realness, although within their own realms more or less of realness is developed. That is to say, presentations qualified by either pastness or futureness may be in themselves very real, as we shall see in sections to follow; but when compared with presentations qualified by presentness the past seems unreal, as what has been but is not now; and the future seems unreal, as what is to be but is not now.[1]

B. Realness and Pastness

Sec. 6. If presentness is naturally appreciated as being closely related to realness, so that realness and presentness tend to vary together, we should expect to note that realness is less closely related to pastness and futureness, both of which are contradistinguished from presentness, and as opposite extremes in relation to this presentness which appears as a form of transition. In other words we should expect to be able to note varying degrees of realness in connection with pastness and futureness much more easily than in connection with presentness; and that this expectation is met in our experience is very clear. In relation to pastness, with which we are here concerned, we may take as an example the notion

[1] Cf. Prof. Walter Smith, *Philosophical Review*, xi. 4, pp. 373 ff.

"the nebulous condition of the solar system." This is a presentation in connection with which pastness is clearly and distinctly developed; but it is one that is in but the smallest degree real for the average man, by whom it is thought to be scarcely more than a piece of scientific imagery. On the other hand such a presentation as that which gives a man the notion of his great-great-grandfather is as definitely qualified by pastness, and it is also very real.

It would thus appear also that the pastness of a presentation does not in itself affect the realness of the presentation within the noetic system in which it is given, and this we should expect would be the case; for a departure from the norm of fixed complexity, upon which departure in a given direction under our view pastness depends, does not necessarily determine any special grade of the stability within the reflective field which determines the measure of realness.

Sec. 7. That the realness of a presentation tends to attach presentness to a presentation we have already seen in Section 3, and we should expect therefore to find that realness attached to a given presentation tends to go hand in hand with a loss of pastness. This we note in the proverbial difficulty we have in persuading ourselves that the markedly real occurrences of the past are irrevocably gone when they involved our satisfaction. The illusions of the insane are frequently determined by placing in the present ideas which we know to be memories. We sane people constantly meet the same experiences when, for instance, in speaking of an acknowledgedly past experience, one says "It is all so real! I seem to see him now coming out of the house to meet me."

Sec. 8. As we have noted in relation to presentness (see Sec. 5 above) so here we must remark that the pastness of a given presentation as considered in retrospect, being itself a special "sense of relation," must in itself be subject to variations of stability or realness, this variation being determined by the greater or less intrusion of the hitherto

unemphatic presentness or futureness some of which is always observable in connection with all complex presentations. In the case of pastness this variable realness gives us a special variable sense of relation, which we commonly describe as the sense of *familiarity*. This familiarity is observed in many grades of completeness; we say that presentations are more or less familiar, that they have more or less of that "warmth" of which Professor James speaks.

That the distinct quality of pastness is always attached to presentations which are recognized as familiar is of course clear in the very fact that we without hesitation speak of them as *re*-cognized; this term being applied to the so-called familiar presentations because so large a proportion of them, as we observe when we study them, are identical with what we appreciate to be "revivals," these revivals being appreciated as such because they assimilate very fully with the forms of secondary presentations which are distinctly qualified by pastness rather than presentness.

Sec. 9. The appreciation of familiarity involves, as we have just said, an assimilation of the familiar presentations with the forms of secondary presentations: but of still greater importance is the fact that it involves more or less of assimilation with the psychic system,—the Self, which when itself presentatively explicit appears as the empirical ego: hence it is that careful consideration shows us that this familiarity always involves an implicit sense of attachment to the empirical ego. I say implicit because this fact is usually entirely overlooked, although all will at once acknowledge the existence of this attachment when attention is drawn to it: for evidently the presentation if familiar must be familiar to *me*.

When this attachment to the empirical ego becomes very explicit, and the whole state of pastness for me becomes noticeably real, then we gain something beyond this mere familiarity as we shall see in later sections.

C. Realness and Futureness

Sec. 10. As we have seen in the opening paragraph of Sec. 6 above, we should expect to note varying degrees of realness more easily in connection with futureness than in connection with presentness; and it is clear that this expectation is met in our experience. For instance, the presentation which gives us our notion of the condition of this earth when, in accordance with the nebular hypothesis, the heat of the solar system shall have become dissipated, and our little world shall revolve a cold inert mass in the blackness of space;—this presentation is one in connection with which futureness is clearly and distinctly developed, and at the same time it is one which is in but the smallest degree real for the average man. Such a presentation however as that which gives a man the notion of his own death is just as definitely qualified by futureness, but it is also much more real for all of us. But it is to be noted that even this notion of future death itself varies in degree of realness. As I write I find my thought recurring to the death of three of my esteemed friends who have fallen under the scythe of the destroyer within the last week; and just now the thought of my own death in the future is brought home to me with a realness which would not have occurred before these sad events; it persists with a stability which gives it to-day a realness it did not have a month ago when its persistence was not occasioned by the remembrance of these immediate bereavements.

Sec. 11. It would thus appear that the futureness of a presentation does not in itself affect the realness of the presentation within the noetic system in which it is given, and this we should expect would be the case, for the reasons stated at the close of Sec. 6.

Sec. 12. As we have noted in relation to presentness and pastness so here we must remark that the futureness of a given presentation as considered in retrospect, being a special

"sense of relation," must in itself be subject to variations of realness, this variation being determined by the greater or less intrusion of the hitherto unemphatic pastness or presentness, some of which is always observable in connection with all complex presentations. This variable realness of the futureness also itself gives rise to a special variable sense of relation, and this we appreciate when we experience what we call an *anticipation*. This anticipatory characteristic is observed in many grades of completeness, and this because of the greater or less stability, or realness, which the futureness of the given presentation gains as the result of its more or less thorough assimilation with the whole existing noetic system.

Sec. 13. The recognition of an anticipatory characteristic thus involves more or less of assimilation with the psychic system,—the Self, which when itself presentatively explicit appears as the empirical ego: hence it would appear that this anticipatory characteristic involves an implicit attachment to the empirical ego. This fact that the anticipatory presentation is thus attached to the empirical ego is usually entirely overlooked, although all will at once acknowledge the existence of this attachment when attention is drawn to it; for evidently the presentation if anticipatory must be anticipatory in relation to *my* future experience.

When this attachment to the empirical ego becomes very explicit, and the whole state of futureness for me becomes noticeably real, then we gain something beyond this mere familiarity as we shall see in later sections.

II. The Relation of the Time Quality to the Object-Subject Relation

Sec. 14. Having discussed in the preceding sections the relation of the time quality to realness, and having already

studied the relation of the time quality to manifoldness in Part II. of the preceding chapter, we may now consider the relation of the time quality to that relation between realness and manifoldness which as we have noted in Chapter XV. gives us the object-subject relation.

As we have already seen, a relative lack of realness prevails in connection with the subject in this object-subject relation, and we may at once therefore turn to the consideration of the relation of the time quality to the object to which marked realness attaches.

As appreciation of attention and of the object-subject relation tend to vary together, we should expect to find in the relation of the time quality to the object-subject relation certain similarities with the relation of this time quality to attention, and this expectation we find fulfilled.

Sec. 15. As we have noted in the previous chapter that presentations in connection with which pastness is predominant are with comparative difficulty maintained in the focus of attention, so here we should expect to note a comparative difficulty in maintaining as an object a presentation in which the characteristic of pastness prevails.

A simplifying complexity, to which under our view the pastness is due, involves in general a tendency to instability, and where the quality of pastness is predominant we should therefore be led to look for a low degree of that realness which brings into existence the object in the object-subject relation. In other words the past should be more easily considered as subjective than objective; and that this accords with our experience is seen in the fact that we quite spontaneously think of what we have of the past as a subjective record rather than as a somewhat set over against the subject as an object, which the former may influence or be influenced by.

Sec. 16. We have also seen in the previous chapter that presentations in connection with which presentness appears

have an especial tendency to be brought into the focus of attention, so far as they are determined by environmental stimulation; but that, if we eliminate these environmental influences, presentations which have futureness tend pre-eminently to gain position in the focus of attention, as is evidenced by the very fact that the word *attendere* connotes an anticipatory aspect. We should expect then to find, as we know is the case, that presentations which are due to environmental stimuli,—our sensations and percepts,—and to which presentness is attributed, would be the most marked of objects in the object-subject relation; but that if these are eliminated from consideration, the presentations that have futureness would be on the whole those that are most commonly objectified.

That our sensations and percepts are our most distinctly objectified presentations will not be questioned. And I think it will also be agreed that apart from these sensations and percepts the objective situation is attached most markedly to what is of the future. The mere flow of thought which is looked upon as present experience, and from which sensations and percepts are as far as is possible eliminated, gives us reverie, day-dreaming, fancy, imagination, but usually does not distinctly involve a sense of the objectivity of the thoughts involved. Such is not the case however where these thoughts have futureness; then, as they gain prominence in the focus of attention, so they are brought into relation with the subject in the process of becoming objectified: the attitude of the subject in relation to them becomes significant.

If futureness involves a developing complexity in the presentation to which the futureness is attached, then it involves less of dropping out, and a greater permanency of certain elements; it involves the relative stability of a core, if we may so speak, to which are added the elements which make the successive revived presentations appear progressively

more complex; and it should in general therefore be connected in our minds with a sense of coming realness; and this is certainly true. The future indeed is appreciated to be unreal in comparison with the present, although less so than the past is. But it is clear that the sense of realness as a possibility is brought to mind automatically in connection with the sense of futureness, in a manner contrary to our experience of pastness; for as we have seen above, where realness is emphasized in connection with pastness the presentation tends to lose its pastness.

Sec. 17. In this division of our chapter we have been dealing with subjects which may appear more appropriate to Book III. in which we consider the nature of the Self and of its simulacrum the empirical ego; for as we have seen the subject in the object-subject relation, when it becomes explicit, turns out to be this empirical ego. The intimate interrelation between the presentation and the Self is seen however in the fact that it seems impossible to pass from this consideration without the study of certain important states given by the establishment of the realness of the time phases themselves as attached to, and through the influence of, the empirical ego.

III. The Action of the Empirical Ego

Sec. 18. The above consideration of the relation of the Time Quality of presentations to realness and manifoldness brings before us again two facts to which reference has already been often made: viz. (1st) that this realm of manifoldness *par excellence* is the realm of inattention:—that is the unemphasized psychic system as contradistinguished from the emphases within this system,—the Self as contradistinguished from the presentations to this Self: and (2nd) that no presentation, and therefore no presentative appreciation of any

general psychic quality can be what it is apart from some influence upon it from the psychic system, *i.e* from the Self.

We are thus led to see that the Self must always be more or less implicated in the establishment of the realness of the time quality phases of any given presentation; and that when this influence becomes explicit it must appear as the action of the empirical ego leading to the establishment of this realness of the special phase of the time quality; that is, it must be appreciated as the welcome by the empirical ego of the pastness, or the presentness, or the futureness. But as we have already seen, the appreciated efficiency of the Self, as explicit in the efficiency of the empirical ego, in the establishment of that realness which gives the objective attitude in the object-subject relation, is what we speak of as belief. We should therefore be led to look for manifestations of this efficiency of the empirical ego in belief in connection with the several phases of the time quality.

Sec. 19. For the reasons given in the last paragraphs of Sec. 5, referred to in the next section, this firmly established realness of presentness as attached to me, and belief in relation to it, need not be expected to give us a modification of consciousness so markedly specific in character that it would acquire a definite name. The case is quite different however with the establishment of the realness of pastness and of futureness as attached to me; and here we might look for the appearance of distinctive modifications of consciousness sufficiently specific to acquire definite names.

As we have already seen, presentations in connection with which realness and the pastness and futureness time phases are developed, and which also involve merely an *implicit* attachment to the empirical ego, give us respectively the recognition of familiarity, and of the anticipatory characteristic. When the realness of these pastness and futureness time phases of presentations as related to the empirical ego is much emphasized we should expect then to find the senses

of familiarity and of anticipation gaining something which they did not before have; and in the establishment of this realness we would have the *conditions* of belief; and if doubt were raised as to this realness of the time phases for me, then we should expect to find belief becoming *explicit* as the re-establishment of this realness by the influence of the empirical ego.

Where the real pastness and familiarity of a presentation becomes thus established we have a Memory, in connection with which we experience belief if the realness of the pastness for me of the presentation is questioned. A memory is a revival to which is given a special form in that it is appreciated as real for me in past time, and is habitually believed in as such.[1]

Where the real futureness and anticipatory character of a presentation becomes thus established we have an Expectation,[2] in connection with which we experience belief if question is raised as to the realness of the futureness for me. An expectation is a presentation to which is given a special form in that it is appreciated as real for me in future time, and is habitually believed in as such.

Sec. 20. Before we examine these descriptions of Memory and Expectation we may say a few words concerning the relation of the several time phases to belief.

Although the Self is always in some measure implicated in the maintenance of the realness of a presentation; nevertheless in certain cases this influence of the Self may, as we

[1] It is interesting to note that Bergson in his philosophical system, published since this chapter was written, makes much of this important distinction between revival and memory which has for some unaccountable reason been too generally overlooked by psychologists.

[2] Hope is a state of vibration between expectation and non-expectation. Its emotional quality is determined by the alternative spontaneous reactions and repressions which are involved, giving us experiences respectively of elation and depression.

have seen, be overlooked, so that we come to think that some presentations have realness quite irrespective of the action of the Self, this occurring especially in connection with marked sensational and perceptual presentations due to environmental stimuli. But these very intense sensational and perceptual presentations, as we have seen, give us our most vivid appreciation of presentness; and we should not be surprised therefore to find the establishment of realness in belief overlooked in regard to presentness; even as we have seen that in relation to presentness voluntary attention is overlooked.[1] Now we find John Stuart Mill[2] stating that every case of belief is either an expectation or a memory. This means in the first place that Mill recognized the close relation of belief to the pastness and futureness time phases in memory and expectation; and in the second place that he followed the natural inclination of men in overlooking the relation of belief to presentness.

In our studies in Book III. we shall show that the Self is directly concerned with the establishment of the realness of presentness as well as of pastness and futureness. But here we shall confine our attention to those cases where presentative emphasis is clear, and shall consider; 1st Memory, as involving the establishment of realness in connection with those complex presentations which we call familiar because they involve pastness and an attachment to the empirical ego; and 2nd Expectation, as involving the establishment of realness in connection with those complex presentations which we call anticipatory because they involve futureness and an attachment to the empirical ego.

[1] This correspondence is an interesting corroboration of the view above mentioned that intensity and realness are closely allied general qualities, and that their relation to the whole field of manifoldness gives us respectively attention and the object-subject re ation.

[2] Confer his note to his edition of James Mill's *Analysis*, chapter xi. first sentence of ii.

It seems perfectly clear that while memory and expectation do not necessarily involve the recognition of belief, they do necessarily involve the conditions of belief; for evidently while I do not specifically experience belief in relation to all my memories or expectations, nevertheless I cannot be said to remember or to expect unless if questioned I find myself willing to assert belief in the realness of the presentation attached to me, which is characterized by pastness in the case of memory, and by futureness in the case of expectation.

A. Of Memory

Sec. 21. According to the statements of preceding sections a presentation becomes a memory when in connection with it both pastness and attachment to the empirical ego are explicit, and provided the realness of this pastness for me is firmly established.

We may bring this clearly into view if we consider certain qualifications of presentations which approach the nature of the memory presentation as thus described. We experience certain presentations which we call revivals and which have a recognized pastness and attachment to me. But it is to be noted that if the presentation is a revival, and nothing more, neither the pastness nor the attachment to me are explicit in the presentative experience; so far as we recognize these qualifications of the presentation in calling it a revival they are appreciated by us, *after the experience*, by a tracing back of the presentation to the body of our experiences which we call our past. In fact a presentation which has the characteristics that lead us to describe it as a revival, is not as such necessarily even familiar. Not until the pastness and the attachment to me become more or less explicit in the presentative experience itself does the presentation gain this characteristic of familiarity.

Presentations which thus display explicit pastness gain

more or less of this familiarity as the result of their more or less thorough assimilation with the whole existing noetic system: and as this noetic system when explicit appears as the empirical ego, this assimilation involves a more or less explicit recognition of a relation to "me." Thus the presentation "my great-great-grandfather" has realness of pastness but no familiarity. The presentation "my father" has no more realness of pastness, but it has this sense of familiarity, and it is familiar evidently because it has the "warmth" which implies an attachment to the whole psychic system, and is appreciated as directly related to me. This characteristic of familiarity is so common an experience that presentations in which it does not appear are placed in a special class. A presentation which is vivid enough to attract attention, and which having pastness is found to lack this familiarity in relation to all pastness for me, is called a product of the imagination; of which we speak again below.

But when a presentation, which is familiar in the fact that it is appreciated as having pastness and as closely related to me, has its pastness for me made fully real, then we have a memory; and when this realness having been disturbed by question is re-established by an influence coming explicitly from the empirical ego, then we find ourselves believing in the realness of the pastness for me, and we assert that we remember.[1] As Prof. James says: "Memory requires more than mere dating in the past. It must be dated in *my* past. In other words, I must think that I directly experienced its

[1] Dr. James Ward (*Encyclopedia Britannica*. Article, p. 63) distinguishes between recognition and memory, holding that "there is an actual remembrance where the recognition is accompanied by a reinstatement of portions of the memory train continuum with the previous presentation of what is now recognized." If we use the word familiarity in place of recognition, and note that what Dr. Ward calls the "memory train continuum" is involved with the explicit apprehension of the binding power of the empirical ego, there appears to be no opposition between his view and that here expressed.

occurrence. It must have that 'warmth and intimacy' which characterizes all experiences 'appropriated' by the thinker as his own": [1] *i.e.* the attachment to me must be explicit and real.

Sec. 22. The most familiar of presentations for the most part pass without consideration;—the more familiar they are the less is their familiarity likely to attract our attention: my familiarity with the appearance of my daily companions does not arise in thought naturally. And evidently this relation is one that should be looked for if our view is correct: for as we have already seen the most real of presentations fail to attract attention to their realness. On the other hand the close connection between memory and belief already referred to is also to be looked for: for this familiarity, so likely to pass unnoted, must be brought into prominence when doubt is raised as to the realness of the pastness: not until such doubt arises does the realness become explicit, and then only through its enforcement by the attachment of the presentation to the empirical ego; and then we have belief. Each memory is clearly appreciated as such only where a question is raised as to the realness of the pastness of the presentation for me; and in the acknowledgment that the presentation is a memory we express our appreciation of the fact that the Self, as explicit in the empirical ego, has resolved the doubt by establishing the realness in belief that this presentation was real for me in my past.

If this view is correct our memories should be appreciated as more or less clear as such, according as the realness of the pastness of presentations for me is more or less clearly developed, and is more or less clearly involved with the reaction

[1] *Psychology*, vol 1, p. 650. Prof. James' language is here somewhat disconcerting; for the word *dating* usually refers to something much more definite than is necessary to true memory. That which is dated is always an event. But I certainly can remember other things than events: *e.g.* my grandmother.

of the empirical ego. And we certainly do experience certain grades of memories, if we may so speak: some are so firmly bound up with the empirical ego that they cannot regain mere familiarity,—can never be dislodged as memories; while others seem but momentarily attached to, and then again detached from, the empirical ego, so that at one moment we are ready to say that we remember a circumstance, and then in the next moment find ourselves in doubt whether the presentation is more than a familiar one without explicit attachment to the empirical ego. Between these extremes there are an indefinite number of grades of certainty of memory. The fact is, as Prof. Royce says,[1] that "most of our memories of long past events are systematically, although very unequally, falsified by habit"; and this fact of which we shall present ample evidence as we proceed, is natural if our memories are due merely to such a realness of pastness as warrants our belief in their attachment to the me.

Sec. 23. If memory is thus correctly analysed it is apparent that past experience will usually determine the existence of memories; for this past experience will naturally lead to revivals, which will be familiar if the past experience has been sufficiently momentous, or often enough repeated, and which may well gain the realness of pastness for me which is necessary if we are to experience true memory. But it is equally true that if this realness of pastness for me can be gained in any other way than by the actual experiences pictured in the given presentation it will still be a true memory, even if it has not as a whole been based upon an experience in the past like that to which it is referred. This is a fact of which the average man takes no account. He almost invariably assumes that his memories are a thoroughly correct record of this past experience: he is liable to think you are questioning his veracity if you venture to question the validity of his deduction as to the occurrences of the past from his existing

[1] *Outlines of Psychology*, p. 238.

memories. Yet nothing can be more certain than that our memories are very doubtful evidences as to the real nature of situations in the past; as is indicated by the ease with which the lawyer is able to obtain from honest men evidence of situations which never have occurred. Surely this must be expected to be the case if our memories are "systematically falsified by habit"; and all thoughtful men will agree that[1] "the veracity of memory is not absolute and is itself subject to a higher criticism. Our justification for regarding memory as in general accurate is briefly this, that by taking such a course we are best able to order and harmonize our world."

Sec. 24. It will be evident to the reader that the view of memory here presented is quite diverse from that conception of it which has long been, and still is, held by the mass of intelligent men, and which can scarcely be said to have been altogether abandoned by the best thinkers in our day, although all of the later psychologists of importance deal with the subject in a manner which if examined will be found to be consistent with the view here presented.

This current conception of memory may not improperly be described as the "storage warehouse theory." According to it experiences of the Self are somewhere filed away for future reference in some manner, and are upon occasion taken out of storage by the Self, or in other cases come out of storage of their own accord. That this supposed mental store house, if it exist, is a poor sort of receptacle for our valuable psychic goods is clear from the fact that the experiences which are supposed to be placed in store escape often without our will, and even against our will, and present themselves out of bounds in the most unexpected manner, and without indicating in any clear way the character of the structure in which they have been laid away, or the nature of the management which has held them from escape for a time, and then has let them

[1] F. H. Bradley, *Mind*, 30, p. 60.

loose, or has apparently thrown them out with the sweepings and rubbish.

It is clear also that the method of filing adopted must be a most absurd one from any modern business point of view; for we often find it very difficult to get with any promptness that for which we have urgent need, if we are able to find it at all, notwithstanding that we have the very best of assurances that it has been placed in store and therefore cannot have been lost. Beyond this it is clear that the management of the business must be very carelessly conducted; for when we find what we want we are often much surprised to discover that it has sadly deteriorated during its lying in store; the moth and rust of time have corrupted it to some extent always, and in many cases very seriously. Furthermore we usually find that we cannot draw it from its file without also dragging out extraneous matter which clings to it so closely as to be inseparable from it.

But perhaps the reader will think that we should treat this theory with more seriousness; and with seriousness we would therefore note that there is no body of writers who speak more freely of memory in terms of this storage warehouse theory than the neurologists, and those interested in psychophysics. But surely these are of all others the very men who should long since have protested against the absurdity of this conception. For it must be acknowledged that there cannot be any such method of storage in the nervous system as this psychological theory suggests. It is clear that each new stimulation X to the nervous system leaves it an altered system:—a system which has been so differentiated by the stimulus X to which its reaction has been R, that it is actually a new system which if again stimulated by X will no longer give the reaction R, but some other reaction R^1. Now if this is true there can be no permanent somewhat, no persisting "m," as some would have it, in the nervous system in any event, which is stored away for future use. That each

stimulation leaves its "trace,"—*i.e.* produces its modification of the system, and results in a modification of the possible activities of that system for all time, is of course true: but this is far and away from indicating the existence of any possible method of neural storage, or any specialized depository for filing away experiences which certain skilled psychophysicists have wasted their valuable time in endeavouring to locate.

Nor do the psychic facts warrant us in clinging to any such absurd notion; for apart from the weaknesses of the hypothetical system of storage above referred to, it is as true of consciousness as of the nervous system, as we have seen in Chapter v., that no conscious state can ever recur in identically the same form. While it is true that each presentation leaves its "trace," *i.e.* produces some sort of permanent modification of the conscious system; this is far and away from indicating the existence of any possible method of psychic storage. It is a fact susceptible of easy proof that very many memories are altogether different from the presentations which originally occurred in experience as their basis; and we are never able to show a single case in which the memory does not show some loss of what we call the original experience, or some accretion during the time which has lapsed between the experience upon which it is based and its recall as a memory.

What we commonly speak of as the power of "memorizing" is merely the power of accurate association in certain given directions. That this is true becomes clear when we note that what is often called "memorizing" is recognized to be nothing other than this mere process of associating, with which there is connected no true memory, as there is involved no attachment to the empirical ego. In such cases there is naught but a recall of certain presentations following upon the suggestion of others.

This view is further corroborated by an observation of the limitation of what we thus improperly call memory, and

which we ought to speak of merely as power of recall. If we become capable of associating one idea A with another idea B, we in a measure obstruct the appearance of still another idea C in connection with A. What we carelessly speak of in these terms as memory is, as Prof. Bain says, "like a full jug into which we can pour water, but only by the displacement of some already there." That is, habits of association which give us powers of recall in certain directions necessarily limit our powers of recall in other directions. Mental power goes not so much with an advance in the number of lines of association as in the ability to arouse associations of general relation: and the most capable man will be he who can recall not only the general relations, but also, by specific attention to any one class, the relations within that class.

Sec. 25. It thus appears that our memories are a special type of revivals. Memories indeed are always revived presentations, which arise according to the well recognized processes of association: but on the other hand not all revivals are memories. For it seems clear that three characteristics must be experienced in connection with a revived presentation if it is to be a memory; viz. pastness, attachment to the empirical ego, and a realness of the complex presentation as thus constituted: and such is not the case with a mere revival.

The occurrence of these characteristics may be, and usually is, due to influences from past experience which may be merely implicit or may be explicit. But it is important to note that it may be due to recurrences which have no relation to the experiences which appear to be involved with the memory. Memories which are produced in this latter manner are what are usually called "illusions of memory," of which we shall give examples below. Under our view these are true memories, but memories which have not been due to past experiences: inasmuch however as a vast proportion of our memories are due to our past experiences, we incorrectly judge

that these special memories have also been due to past experiences of ours. The illusion does not inhere in the memory, which is itself valid as a memory; but in the judgment as to past experience which we make as the result of the memory experience.

Sec. 26. If two of the three characteristics above referred to are found in connection with a presentation the addition of the third will make it a memory.

A presentation may have realness of pastness, but in this fact it is not a memory: thus I cannot be said to remember my great-great-grandfather. But if to the pastness is added an attachment to me, the whole of this complex presentation maintaining its realness, then we have a memory. Let us suppose for instance that I say I do not remember my maternal grandfather, and that you call my attention to certain of my recollections of my earliest childhood, and among these recollections to the image of a very old man wheeled in a chair, or tottering around leaning upon a cane; and then suppose you prove to me that that man was my grandfather; then the presentation—the fact that I had a maternal grandfather, —which a moment ago was merely real in the past, has become real for me in the past, and I at once say "why of course I remember my mother's father."

Under certain circumstances we are able to increase the clearness of a presentation as a memory by merely increasing the bonds of attachment to the empirical ego. We often appreciate presentations which are familiar, and desire to make clear the ground of this familiarity. If we hold them in attention until they assimilate more fully with that part of the field of consciousness which is apart from the focus of attention, we gain assurance that they are revivals; and when finally by various steps, some of which are given in attention and others not, the bond with the empirical ego of the past becomes more or less completely explicit; then we say that the presentation is a memory which is more or less distinct.

A good example of the artificial production of a memory by the addition, to a real past presentation, of attachment to the empirical ego is given in the common experience of the good story teller who in repeating over and over again the same tale attaches the details so firmly to his own experience that he learns to believe the incident to have occurred in his own life. I have an elderly friend, an accurate active minded man of affairs, not at all given to exaggeration, who in his youth visited some of the isolated coral reefs of the Pacific, and who for years has told a tale of having found buried in the sand, within an atoll, a bottle in which was contained the record of a wreck; and he has often described minutely the appearance of the bottle as he found it. But a year or so ago he became interested in reading over his old diary in which he had made record of his experiences on this voyage, and was much surprised to find a full description of his visit to the atoll, but no mention of his finding of the bottle. Then in the notes made some days after his visit he found a record of the fact that some of the sailors had made a subsequent visit to the atoll, and had brought back with them a bottle which they said they had discovered in the sand on the beach. His astonishment was great, but he at once realized that his memory had been produced, not by the past experience, but by the gradual full attachment to himself of a presentation correctly referred to the real past, only a small part of which however had been originally bound up with his empirical ego.

Sec. 27. In the above section we have been considering cases where realness of pastness becomes a memory through the explicit attachment to the efficient empirical ego, and we may now turn to the study of cases where a real presentation for me becomes a memory through an added pastness.

A presentation may be very real and thoroughly attached to the empirical ego, but this does not constitute it a memory. This is a matter of such constant occurrence that it seems self-evident. The thought "the writing on this page" is real

for me, and is thoroughly attached to my empirical ego, but being recognized as present and not qualified by pastness, it is not a memory. The mere lapse of time will however make this presentation "the writing on this page" a memory, as to the realness for me is added the sense of pastness.

Examples of the artificial production of memories by the addition of pastness to an experience which is real for me are given in those rather common cases where a present experience which is real for me is in some way displaced into the past, so that we become convinced that we have experienced it before, although evidence goes to prove that such could not have been the case. I recall once having entered for the first time a room in a college hall which had just been completed, in which a friend of mine was speaking; and yet I felt the greatest certainty that I had seen and heard it all before. I could prove conclusively that I had never been in that room, or in any room like it; and that I had never before heard my friend speak in public: nevertheless the memory was just as clear as could have been any that was certainly the result of past experience. To a firm realness for me had been added a sense of pastness, the whole complex presentation maintaining realness, and at once it became a true memory.

Such experiences as the one just described are probably due to sudden distractions of attention, which are connected at times with extreme excitement, or which may be caused by a momentary condition allied to coma. Under such conditions there being two disconnected successive experiences, in a third moment the presentation of the first moment is represented by a secondary presentation which is related to the secondary presentation representative of the second moment in the same form of incompleteness that would have existed had the first moment been an occurrence of long ago.[1]

[1] It is to be noted here that not a few of the records made by the "Society for Psychical Research" are explicable as due to "illusions of

Sec. 28. Beyond the cases of artificially produced memories referred to in Sec. 26 and 27, we have a third type. A presentation may display pastness clearly, and may be so clearly attached to the empirical ego that it seems distinctly familiar, yet if this whole complex presentation involving pastness and attachment to me fails of completely firm realness it fails to be a memory. I meet a man on the street and find myself saying "I imagine I have seen that man somewhere before." Here I surely have not a memory, yet there is a sense of pastness and an attachment to me, but the sense of realness fails. But suppose the man calls out "Hello Marshall! Don't you remember me? I am Smith, Johnson's brother-in-law. I met you at his wedding." Then at once with the establishment of realness in the whole complex presentation it instantly becomes a true memory.

Examples of the artificial production of memories by the accretion of realness are given in many of our self-deceptions. In such cases we keep our attention so closely fixed upon certain images of what might have been past experiences, and which we wish might have been real;—that is we fix our thought upon what we wish were real and overlook so persistently the presentations that were actually real,—that presently the presentations which were not real become real, for us, in past time. They then become true memories; and we then falsely judge them to have been based on real experiences in our past lives, as a very large proportion of our memories are.

Sec. 29. The above considerations throw light upon the distinction between Memory and Imagination, to which we have already referred above. What we call our imaginations are exclusive of our memories. These imaginations as considered in retrospect may have distinct pastness, but in this

memory" of this type; which are true memories indeed, but memories that are not properly based upon the actual experiences in the past to which they are referred.

past they are not real in the noetic system to which the empirical ego of the moment belongs, and are therefore not memories. If I in any way alter my egohood so that it is devoid of those qualities which contradict the realness for me of an imagined past presentation, it then becomes for the time being a true memory for that particular uncritical empirical ego. It is thus with many of the imaginations of dream land: when we catch the remnant of them in our waking hours we recognize them as imaginations; yet we are able often to note that in that dream life they were apparently true memories. This is explicable in connection with the view here maintained; for we can readily see that during sleep several relatively isolated true memories of the awake man may be made to produce combinations which for this awake man are inconsistent, and which he realizes to be totally unreal for him, although to the uncritical ego of dream life they have been fully real. This explanation indeed becomes more probable if we note that when we "make believe" the process may be described in very much the same terms, inasmuch as we then voluntarily overlook inconsistencies which we cannot allow to pass in our ordinary practical active life; and then, when "we allow our imagination full play" as we say, we live in a life where these strange combinations of revivals attain a realness, and an attachment to the "day-dream" empirical ego, which leads us to treat them in the current of thought as though they were actual occurrences.

Sec. 30. The cases referred to in Sec. 29 show clearly the action of the empirical ego in affecting the maintenance, through the process of belief, of a realness which is disturbed. We clearly "will to believe" that the memories of our "make believe" world are based on past experience. And even in relation to the cases of self deception referred to in Sec. 28 we not infrequently are in a measure aware of our action in forcing the presentation to become a memory. Nor are we able to convince ourselves that the creation of artificial

memory by the story teller referred to in Sec. 26 is always altogether unappreciated by the subject; *i.e.* that he does not knowingly aid the formation of the memory which finally becomes so firm that he automatically judges that the occurrences to which it relates have been part of his actual experience in the past.

B. Of Expectation

Sec. 31. If it is true that futureness is a phase of a general psychic quality which we call the time quality, which is contradistinguished from the pastness phase of this quality, both being departures from presentness but in opposite directions as it were; then we should expect to find certain correspondences between memory which relates to pastness, and expectation which as evidently relates to futureness. This we find to be the case.

According to the statements of Sec. 19 a presentation becomes an expectation when in connection with it both futureness and attachment to the empirical ego are explicit, and provided the realness of this pastness for me is firmly established. We may bring this clearly to view if we consider the relation of expectation to anticipation.

When the futureness of the presentation is explicit, while its attachment to the empirical ego is implicit, but implicit merely, then the presentation gains a characteristic which leads us to call it an anticipation. Thus presentations which display explicit futureness gain more or less of this anticipatory characteristic as they assimilate more or less fully with the noetic system in which they appear. But this noetic system involves what when presentatively explicit we call the empirical ego. This anticipatory characteristic therefore involves an implicit relation to "me." This relation is not explicit in cases of mere anticipation, although when we consider anticipatory presentations objectively we note the

necessity of the relation referred to. Thus the presentation "my great-great-grand children" has futureness, and realness, but no anticipatory "feel." The presentation "my grandchildren" has no more of realness or of futureness, but it has this anticipatory "feel," and it is an anticipation evidently because it is implicitly attached to the whole noetic system and may be appreciated in reflection as directly related to me.

But when a presentation which has this anticipatory characteristic, in the fact that it is dimly appreciated as having futureness and as related to me, has its futureness for me made fully real, then we have an expectation; and when this realness having been disturbed by question is re-established by an influence coming explicitly from the empirical ego, then we find ourselves believing in the realness of the futureness for me, and we assert that we expect.

As the explicit attachment of the real past to our empirical egos gives us memory; so the explicit attachment of the real future to our empirical egos gives us expectation. And herein we have the basis of our appreciation of the close bond between memory and expectation, notwithstanding that they are evidently mutually exclusive,—notwithstanding that an expectation, as such, cannot also be a memory, as such. Of the dependence of expectation upon the previous experiences of life, and upon its memories, we speak below.

Sec. 32. If an expectation is a presentation which has futureness, and a high degree of realness given with the inherent and explicit attachment of the presentation to the empirical ego, then expectations should be appreciated by us as being more or less clear as such, according as their realness is thus more or less developed: and no one will deny that we experience various grades of expectation similar to those grades of memory above described. All presentations which are in attention naturally press forward in their development, *i.e.* have in them what may easily become an expectation. In

fact, as Dr. Stout[1] says: "the primary experience of 'futureness' . . . ., is involved in the essentially prospective nature of attention." In most cases this fact is overlooked, for only in retrospect does this anticipatory aspect of our normal active states appear.

Here again we may speak of the close connection between expectation and belief already referred to. The constantly experienced anticipatory characteristic of our presentations is likely to be overlooked in certain cases until some doubt is raised as to the realness of the futureness for me, and then the test of its realness appears in the presence of belief in this futureness for me; belief, as we have seen, being the enforcement of the realness of the presentation by the action of the Self as explicit in the action of the empirical ego, in an act of will.[2]

Sec. 33. It seems clear then that three characteristics must be experienced in connection with a presentation if it is to be an expectation: viz. futureness, attachment to the empirical ego, and a realness of the complex presentation as thus constituted. If two of these characteristics are found in connection with a presentation the addition of the third will make it an expectation.

A presentation may have realness of futureness but in this fact it is not an expectation. Thus the mere thought of the fact that you are a possible beneficiary of your rich distant

[1] *Manual of Psychology*, p. 391. Confer Sully, *Human Mind*, i. p. 151; also Jas. Ward, *Encyclopedia Britannica* Article "an event expected differs from a like event remembered chiefly in two ways,—in its relation to present impressions and images, and in the active attitude to which it leads."

[2] As I have indicated, such cases of the attachment of voluntary action are only occasional, and I quite agree with Bradley (*Mind*, N.S. 44, p. 442) that it cannot be claimed "that in all expectation there must be will" (he uses this term as the equivalent of voluntary action) "or desire." The attachment to the empirical ego may not involve any disturbance of the realness, and in such cases there will be no will act.

kinsman who must some day die and must leave his property to some one, is a presentation which has realness and futureness; but the thought of yourself as a future beneficiary is certainly not thus far an expectation. Let us suppose however that this kinsman tells you that he has remembered you in his will, then you at once, and ever after, experience as an expectation the thought that you are to receive a legacy upon your kinsman's death; and this change has been due entirely to the attachment, quite accidentally, to your empirical ego of the presentation which before displayed merely the qualities of futureness and realness.

If one undertakes a piece of work which may possibly have an advantageous result in his own experience, he may start with the idea that this result is a mere possibility; but if in the course of the work his thought often recurs to this possible advantageous result he presently finds himself deeming it not only possible but somewhat probable; and finally, if it fails to occur at the time of the possible fruition, he awakens to the fact that he has come fully to expect it. This is a most common experience in the life of any one, the student let us say, who with others enters a competition for a prize. He may begin his work with the full realization that his chances of winning are perhaps but one in twenty; and he may make a firm resolve that he will not care whether he wins or loses. But as his work proceeds he cannot help following out the natural current of his thought, considering what he will do if he should happen to succeed. Success may mean for him the choice of a profession, it may mean for him a career, or perhaps a fund for a much needed and delightful holiday trip. As the days pass he still keeps saying to himself that his chances are only one in twenty, and that he will not hope for success; but if he throws himself with full earnestness into his work with the intention of winning if in any honorable way he can do so, the possible result of his endeavor presently becomes thoroughly woven into the warp and woof of his

empirical egohood, and when he hears the announcement that he has failed to win the prize he finds to his surprise that he has come to expect fully to win, experiencing all the disappointment that could have come to him if no doubt of his winning had ever entered his head.

It is in this manner again that we often sophisticate ourselves; "the wish becomes father to the thought"; we learn to believe that a certain result will surely obtain, through the process of longing for its fruition and letting our thought rest upon this fruition until it binds itself thoroughly with our egohood, until it becomes a full expectation.

Sec. 34. Or again a presentation may be very real and thoroughly attached to the empirical ego, but this does not constitute it an expectation. It may be made an expectation however by adding the sense of futureness to it. Some years ago I had a severe persistent painful sensation which was very real, and as the reader can imagine very distinctly attached to my empirical ego. I thought it might indicate some serious organic trouble: but my doctor after a time traced it to an irritated spinal nerve and speedily cured it. The thought of this painful trouble was never an expectation up to this point. But one day I met my doctor who asked after my health, and whether I had had any recurrence of the trouble, saying "It sometimes takes a long time to get rid of these nerve irritations, and you must not worry if it recurs." He thus added to the realness for me the characteristic of futureness as a qualification of the presentation, and at once it became an expectation. Although years have passed since the occurrence above mentioned, I cannot now think of that painful affection without at once wondering when I am going to experience it again.

Sec. 35. Or again, a presentation may display futureness clearly, and may be so closely attached to the empirical ego that its anticipatory nature is appreciated; yet if this whole complex presentation involving futureness and attachment to

me fails of completely firm realness it fails to be an expectation. The thought of my death is a presentation which has futureness, and which is attached to me; but it fails of realness during a large part of my life, and is normally not an expectation, even though I have every reason to judge that it must eventually occur. If however this complex presentation involving futureness, and attachment to me, attains a firm realness, then at once it becomes an expectation. Suppose I have what I think is some trifling indisposition, and suppose I overhear my doctor say to a member of my family, "his condition is much more serious than appears on the surface, he is in very great danger"; then to the futureness for me is added realness, and at once I expect death.

Induced expectations of this type are of very frequent occurrence in our every day life. We constantly are cognizant of presentations which appear at the start as mere future possibilities, for us; but if such presentations are held sufficiently long in attention, until they are assimilated more fully, that is until they become more real, we find ourselves considering them to be more than mere possibilities, we find them becoming probabilities: and if this process is allowed to continue, if it is not met by contradiction, the probabilities become more and more certainties,—that is the presentations become more and more real,—until finally we find ourselves acknowledging that they have become true expectations.

Before passing to the next section we may note that as in connection with futureness there is always involved a certain attitude of reaction, even though this is not always explicit; so we should expect to find, as we do find, that there frequently is an explicit emotional attitude involved with expectation which, while not of its essence, nevertheless colors it with a tinge that is not to be found in connection with memory.

Sec. 36. The cases referred to above show clearly the action of the empirical ego in effecting the maintenance, through the process of belief, of a realness of futureness

which is disturbed. The cases of self-sophistication mentioned in Sec. 33 clearly involve in many cases the "will to believe": and no one who has had knowledge of hysterical patients can hesitate to agree that in cases similar to that mentioned in Sec. 34 the production of expectation may be quite knowingly aided by the will of the patient who would gain the sympathy of others. So is it also in such a case as that mentioned in Sec. 35. A person who has suffered bitter loss not infrequently comes thus, through the wish for death, to expect early death, although perfect health shows the great improbability of such an event.

Sec. 37. It is a matter of common remark that the width of the field of "the future" would be indefinitely smaller than it is, were it not for processes connected with, and developed out of, past experience. It is not unusual indeed for psychologists to lay great stress upon the fact of the dependence of expectation upon our experience in the past, and especially upon memory as a record of this past experience. If A, it is said, has in the past been followed by B, then when A occurs again, B will tend to appear; and if the pressure of this tendency is sufficient then B will be what we call an expectation.

But the above may be taken as a mere statement of what is ordinarily called the process of association: and we find then that our statement amounts to little more than if we were to say that an idea which is aroused by association under certain conditions is an expectation: and this of course is true. But it clearly is not true that these "certain conditions" are always due to past experience, and to implicit if not explicit memory; and in fact under our view they are never more than indirectly connected with this past experience. If it were true that they were always thus due to past experience then surely we should find ourselves unable to account for the fact that we all expect so fully as we do occurrences, such as death, which we have never experienced, and which we can

only connect with ourselves by a process of thought: and especially unable to account for those constructed expectations which we have considered above.

Our position may appear even stronger if we note a further point. Genetically speaking, the appreciation of presentness in the course of our development must be anterior to the appreciation of both pastness and futureness; for as Bradley[1] well says "to know the past or future as such is a hard and late achievement of the mind, for it implies an enormous degradation of the present." But beyond this, and genetically speaking also, the sense of futureness must be anterior to the sense of pastness: for clearly the coming to it (involving the increasing complexity of presentations) is more important to the developing consciousness, than the going from it (involving the simplifying complexity); and therefore the futureness as such must in all probability have been noted before pastness as such was. As Höffding[2] says, "If by memory is understood not only the power of reproducing and recognizing elements of consciousness, but also the power of becoming conscious that the elements reproduced were experienced in time past, then it is developed later than expectation."

What the conditions are which make a presentation also an expectation I have endeavored above to describe; and these conditions are the ones which at times give the expectant form to a presentation which is aroused by association that is dependent upon a past experience. Thus while a vast number of our expectations are presentations aroused by associations which are due to past experience; and while it is true that our expectations, and indeed our whole conscious life, would be sadly crippled but for these associations; nevertheless it is not true that mere association based upon past experience suffices in itself to account for the experience of expectation. An expectation is given by a special form of

[1] *Mind*, N.S. 30, p. 147.

[2] *Outlines of Psychology*, p. 133.

presentation, whether the presentation is aroused by association due to past experience, or whether it is created anew by untamiliar stimuli; and this special form is given in the fact that these presentations are real, in future time, and for me.

CHAPTER XX

A RECONSIDERATION

I

Sec. 1. In the preceding chapters of this Book II. we have considered the nature of five general qualities discovered in all psychic emphases or presentations, and the relations existing between them. It has been assumed that these general qualities are distinct from one another; that no one of them in any of its phases is identifiable with any other of them in any of its phases. And this cannot be questioned if we trust to introspection, which surely seems to tell us that Intensity, Manifoldness, Realness, Pleasure-Pain, and the Time Quality, are qualities very thoroughly diverse from one another.

The basis of this distinct differentiation will become clearer perhaps if we set before ourselves a concise statement of the nature of each of these qualities, in conjunction with the hypothetical neururgic characteristics with which each of them is supposed to correspond.

Group 1. *General Qualities involving the relation of more or less.*

I

Each neural element in any given neururgic pattern must be more or less active.	Each noetic element in any given noetic pattern must display more or less of
	INTENSITY.

2

Each neururgic pattern must display more or less of manifoldness of minor emphases within each broad emphasis.	Each noetic pattern must display more or less of MANIFOLDNESS of minor emphases within each broad emphasis or presentation.

3

Each neururgic emphasis must display more or less of stability in the development of future neururgic patterns.	Each noetic emphasis, or presentation, must display more or less of psychic stability, or REALNESS, in the development of future noetic patterns.

Group 2. General Qualities involving a norm and departures in one of two directions from this norm.

4

	THE ALGEDONIC QUALITY
Each active neural element in any neururgic pattern must display one of three conditions;	Each noetic element must display either
1. either, energy of stimulus less than equivalent to the energy of reaction;	1. Pleasure,
2. or, energy of stimulus equivalent to the energy of reaction;	2. or Indifference, *i.e.* absence of both pleasure and pain.
3. or, energy of stimulus more than equivalent to the energy of reaction.	3. or Pain.

5

	THE TIME QUALITY
Each neururgic emphasis appearing in successive neururgic patterns must display	Each psychic emphasis appearing in successive noetic patterns must display either
1. either an increasing complexity,	1. Futureness

2. or a stationary complexity,	2. or Presentness, where futureness and pastness are both lacking,
3. or a decreasing complexity.	3. or Pastness.

Sec. 2. Assuming that it is agreed that these general qualities appear to be distinct from one another in introspection, we may ask ourselves whether there is as clear a distinctness between the neururgic characteristics with which they are supposed to correspond.

In the first place it is to be noted that the neururgic characteristics corresponding with intensity, and with pleasure-pain, are held to be elemental; while the neururgic characteristics corresponding with manifoldness, realness, and the time quality, are held to be determined by the complexity of neururgic patterns. It seems clear that there is ground in this fact for the distinction between intensity and pleasure-pain on the one hand; and manifoldness, realness, and the time quality on the other.

In the group of elemental characteristics, viz. intensity and the algedonic quality, there is ample reason for the distinctness of each, in the fact, that intensity corresponds with mere degree of neural activity, while pleasure-pain corresponds with the relation existing between any degree of neural activity and the efficiency of the organic part.

Turning to manifoldness, realness, and the time quality, which depend upon the complexity of noetic and neururgic patterns, we find ample reason why manifoldness is distinct from both realness and the time quality, in the fact that manifoldness corresponds with neururgic conditions which are necessary to the development of stability in a given minor neururgic emphasis upon which realness depends, and also necessary to those alterations of neururgic complexity upon which the time quality depends; the appearance of some measure of these latter two characteristics being possible in connection with any degree of neururgic manifoldness.

The basis of distinction between the neururgic characteristics which we assume to condition realness and the time quality does not at first sight seem so clear. Simplifying and developing neururgic complexity, corresponding with pastness and futureness respectively, might be held to be identical with failure of stability corresponding with unrealness. On the other hand fixed neururgic complexity, corresponding with presentness, might be held to be identical with the existence of neururgic stability, corresponding with realness: both realness and presentness might thus seem to depend upon the relative fixity of complexity.

But upon closer consideration it appears clear that the relation of neururgic fixity to complexity is diverse in the two cases. In the case of the conditions corresponding with realness we have in view the fact that what we call "the same" partial neururgic emphasis persists through various successions of complexities, which may themselves differ as to the variation of degrees of this complexity. In the case of the conditions corresponding with the time quality on the other hand the fact in view is the nature of variability of neururgic complexity as observed in presentations in which may appear minor neururgic emphases which may vary as to stability in successive neururgic patterns.

While thus the neururgic conditions of realness and of the time quality are closely related, as correspondingly we have seen realness and the time quality phases are closely related; nevertheless there is ample reason for our clear distinction between the two neururgic characteristics which correspond with the clear distinctions noted in introspection between realness and the time phases.

II

Sec. 3. In closing this consideration of these five general qualities which we have described as attaching to all psychic emphases or presentations, it will be well for us to recall

certain points made. We have seen that the conscious state of any moment may be described as a noetic pattern within which emphases of varied forms appear. These general qualities *as experienced* are such emphases of special types, and emphases which have a very special significance. What we mean when we say that they are general qualities of all presentations is that no noetic pattern in which any presentation appears can occur without at the same time also displaying some phase of each of these five general characteristics, whether this is appreciated in reflection or not. In other words these general qualities are implicit in every conscious state in which a presentation is given. While in different moments other special forms of emphases of an indefinite variety may appear, with each of these special forms must also appear some one of the phases of each of these general qualities.

Strictly speaking then, instead of describing intensity, manifoldness, realness, pleasure-pain, and timeness, as qualities of special noticeable presentations or mental contents, it would seem more proper to say that these special presentations involve special qualifications of these five general forms which in one phase or another are always given in each moment of our conscious life. These general forms are always of the essence of each noetic pattern, diverse noetic patterns being differentiated by very special forms of emphasis which are, as it were, superimposed upon them; these latter special forms being not of a general nature, but unique and peculiar to the moment in which they appear, and not changing their nature as the phases of these general characteristics change.

Sec. 4. In what we have said above we have been speaking of these general qualities *as experienced.* But this experience may be merely implicit and not explicit. When it becomes explicit, the phases of these qualities are held in attention, and observed in reflection, as they have been in the course of our previous study. They then become themselves special

presentations of the narrower type, as we have from time to time noted in relation to each of the five qualities. They are then special types of those "senses of relation" of which we have spoken so often; and their special nature is given in the fact that they are always found wherever we look for them in reflection, as is not the case with the senses of relation which have led us to adopt the designative phrase; *e.g.* the sense of likeness, the sense of equality, as well as what James calls "the feeling of *but*," "the feeling of *and*," etc., etc.

This being true they themselves, as such special forms of presentations, must be pervaded, as it were, by these general qualities. For instance the appreciation of intensity as such, as a presentation, must itself be more or less intense, more or less manifold, more or less real, more or less pleasant or painful, and must display either pastness, or presentness, or futureness: so also the appreciation of pleasure as such, as a presentation, must be more or less intense, more or less manifold, more or less real, more or less pleasant or painful,[1] and must display either pastness, presentness or futureness, just as any other presentation does: and the same may be said of the presentations involved in cases of the appreciation of any other of the various phases of each of the five general qualities.

That is to say, where any one of the phases of these general qualities is appreciated as an emphasis or presentation within

[1] The appreciation of such a presentation as is involved with the recognition of any of the phases of these general qualities must generally be of that moderately pleasant type which is the characteristic of our ordinary thought trains; and this is the case with the presentation involved when we appreciate either pleasure or pain as such.

Following Külpe, Stumpf, in the article already referred to holds that a formidable objection to the view that pleasure-pain is a quality of presentations is found in the fact that pleasures and pains themselves display the attributes intensity, duration, etc. It would appear from what is said in the text that this point is not well taken if our view is correct. Confer my article in the *Journal of Philosophy*, etc., January, 1909; and my discussion of this point in Chapter XI. Sec. 2.

consciousness, it must involve all the general qualities of all presentations, these however being not necessarily explicit, although always implicit, in the noetic pattern of appreciation as such.

III

Sec. 5. If what has been said above is true it has a bearing upon one point in relation to the subject treated at length in Chapter v. of Book i. where we considered the nature of what are usually spoken of as "representations." We there saw that each so called "representation" is always a new and unique presentation, and is a very special and complex form of those presentations which we have called "secondary" presentations. We speak of such a presentation as an "image" or "representation" because in a moment of reflection there appears an emphasis containing multiple minor emphases and a comparison, in which we appreciate "what A was" (𝔄), and the so called "representation of A ($\propto$)," and at the same time the sense of relation which I describe by saying that 𝔄 is almost exactly $\propto$.

Now it is clear that there is a gap of some kind between A and $\propto$, otherwise there could not be such a comparison. If the original A was a sensation there must be in the moment of reflective comparison an appreciated break between the existence of the experiences which give me 𝔄 "what A was," and $\propto$ the so called image of the sensation A : and this gap can only occur because some moments intervened in which the primary sensation A did not exist as a presentation within the given noetic patterns.

But if the general qualities above considered are always experienced in every noetic pattern, as we have held, then in retrospect we should seldom find given in a distinguishable way, in the actual experience of any phase of any one of these general qualities, the reflective form of comparison above considered where 𝔄 is related to $\propto$, and this because these

general qualities being always given the gap would seldom be discoverable in which the original A, being one of these general qualities, did not appear.

This would mean that the experience usually described as "representation," and which is so commonly noted in relation to the most prominent forms of presentations, viz. sensations, instinct experiences, thoughts, etc., etc., would not be easily noticeable with reference to the presentations given as senses of relation when we appreciate the general qualities here considered. That is to say we should expect to note that we do not find standing out clearly in experience the so called "images" or "representations" of intensities, or of manifoldnesses, or of realnesses, or of pleasure-pain phases, or of special temporal qualifications, in the same sense in which we find the "representation" of the sensations, percepts, concepts, impulses, etc., etc.

That this is true will I think be granted, although this fact has in general been overlooked except in connection with pleasure-pain. In relation to pleasure and pain it has been recognized, and it has been brought forward by some psychologists[1] as a basis for a sharp distinction between the nature of our appreciation of pleasure-pain, (and "feeling" in general), on the one hand; and the so called "presentations" on the other; a distinction which I do not consider defensible. It is clear indeed that in the same sense that we fail to appreciate

[1] Confer James Ward's view (*Encyclopedia Britannica*, Article "Psychology," p. 67) to be referred to again in Chap. XXII. Sec. 20, where he says "Feeling . . . intervenes between sensory and motor presentations," and "is not itself a presentation, but a purely subjective state. . . . Feeling as such is, so to put it, matter of *being* rather than of direct knowledge." In my view Dr. Ward bases this statement upon the introspective fact that in *states of self-conscious reflection*, "feeling" does not often appear as an *object in relation with the empirical ego*, but attaches itself firmly to the empirical ego. But surely this gives us no ground for holding that "feeling" cannot appear as a presentation to the non-presentable Self; a claim which seems to be made in the quotation above given.

"representations" of pleasure-pain, we also fail to appreciate "representations" of intensity, manifoldness, realness, and the time phases.

On the other hand, as we have so often noted, these general qualities *as experiences* are given in the same manner that all so called "presentations" are given; viz. as emphases within the noetic pattern of the moment; and as explicitly considered in reflection we have as definite "ideas" of intensity, manifoldness, realness, pleasure-pain,[1] and timeness, as we have of any specific sensational, instinctive, or ideational presentations: and these "ideas" of these general qualities are secondary presentations, and may refer back to a previous reflective state of appreciation of the presence of the general quality under consideration apart from its mere experience; and thus, although as we have seen above the gap between successive secondary presentations of these general qualities is seldom noticeable, and their appreciation as representations not distinct and clear, still they are observable if we will but use care in introspection.

[1] Confer F. H. Bradley, *Mind*, N.S. 3, p. 43.

BOOK III

THE SELF

CHAPTER XXI

THE SELF AND THE EMPIRICAL EGO. THE HYPOTHESIS

Sec. 1. At the very beginning of this Book it is desirable to ask the reader to note that we are here concerned to study the nature of the Self as part of consciousness, and thus approach the subject from the standpoint of the psychologist, waiving altogether all metaphysical problems in relation to the Self. To distinguish these two points of view is not always easy, as any reader of current writings will easily perceive; but it is clear that the metaphysical Self is a concept quite diverse from the Self assumed in psychological analysis; although all philosophical and metaphysical considerations of the Self are necessarily based upon self-experiences with which as such the psychologist alone can deal.[1]

Sec. 2. The reader of Book I. of this work cannot but be familiar with the hypothesis as to the nature of the Self which we are to examine in this Book. If he is not thus familiar I shall ask him to read Chapter III.

We have noted that the nervous system in man is a vast system of minor nervous systems enormously intricate in structural relationship; and that the activity of the nervous system taken as a whole must be viewed in relation to this

[1] Confer Miss Calkins, *Philosophical Review*, xvii. 3, p. 272.

complexity. If this is true, and if the theory of a thoroughgoing neururgic and noetic correspondence is valid, then it would appear that consciousness must also be looked upon as a vast system of minor psychic systems of enormously intricate relationship; and that the modifications of a given consciousness must be correspondent with modifications of the form of the total pulse of activity in the nervous system with which it is related.

Sec. 3. When we study our conscious experience in reflection we discover it to consist in the main of a continuous series of modified forms; or, as I prefer to describe it, of a succession of ever changing "noetic patterns" due to the varying emphasis of certain partial psychic parts, or elements so to speak, within the whole complex psychic pulse which we describe as consciousness. The parts of this series most easily noted we usually describe as a stream of presentations. But evidently this conception of a stream of conscious "presentations" assumes a somewhat of consciousness to which the parts of the flowing stream are presented. This somewhat of consciousness to which the series of "presentations" are given, is what we call the Self of the moment's experience. Consciousness at any moment thus appears to consist always of a Self, and of a presentation to this Self.

Sec. 4. Reference to the nature of the neural activities which are assumed to correspond with consciousness shows us very clearly that a presentation to the Self corresponds with an emphasis of activity appearing in some part of, and accruing to the whole pulse of activity in, the complex system of neural systems; or in other words that the presentation corresponds with a modification of the whole "neururgic pattern" of any special moment, which modification is due to the emphasis of the activity of some elements, or of some partial elementary system, within the total system of neural systems, this emphasis standing out in sharp contrast from the undifferentiable mass of unemphatic nervous activities.

By a most natural analogical deduction from this observation we are led to surmise that the Self of each moment corresponds with the undifferentiable unemphatic activities of the great mass of the complex system of neural systems to which the emphasis of the partial activities accrues as an increment; for if the Self is part of consciousness, yet is not a presentation, it must be an undifferentiable unemphasized psychic mass to which by special partial emphasis the presentation is given.

The Self of any moment would thus appear to be identical with, and the same as, the "rest of consciousness" which is always acknowledged to exist even when the presentations given are most vivid; identical in other words with what I have called the field of inattention against which is contrasted the field of attention in experience. This is the hypothesis of which we have made a preliminary study in Book I., and which we are here concerned to examine more in detail.

Sec. 5. This hypothesis as to the nature of the Self is so clearly suggested by the study of the neural activities of man that one cannot but be surprised that it has not been developed very widely by psychologists. That it has not been thus developed is probably due partly to hesitancy on the part of scientific psychologists to deal with a matter which has been discussed so largely by many metaphysicians from more or less mystical standpoints. But beyond this the student whose attention has been attracted to this view must always have been met at the start by a formidable obstacle which may well have appeared insurmountable to those unacquainted with the facts which have been made familiar to us by the investigations of modern neurologists.

This obstacle appears in the fact that the theory thus suggested involves the view that the Self, just because it is the undifferentiable unemphatic psychic mass to which the emphasized presentation accrues, cannot itself appear as a psychic emphasis or presentation, *i.e.* cannot be presented: or in other

words that it is what I call a non-presentable Self. But as a matter of fact in states which we describe as states of self-consciousness we do experience as a presentation what we call in every day speech the self,—the ego,—the I,—to which itself psychic objects appear to be given. And this fact surely seems at first sight to be incompatible with the theory under examination.

This difficulty seems less formidable however when we consider that we have been led to look upon the nervous system as a vastly complex system of minor neural systems, and have seen that broadly systematized parts of these minor systems may act as unified masses, and that such a broadly systematized unit may display an emphasized activity as a mass, and that to this emphasized neururgic mass may accrue neururgic increments less complex and more clearly distinguishable. And so, as we have seen in Chapter III. to which I would again refer the reader, finding consciousness to be a vastly complex system of minor psychic systems, we are led to see that we should expect to find just such states as those which we describe as states of "self-consciousness," in which would appear a presentation of double emphasis, one of the minor emphases within which would consist of a presented psychic mass of undifferentiable unemphatic parts which would be a simulacrum of the Self, to which the other minor emphasis would accrue as an object. And when we take this point of view we at once perceive that the I,—the ego,—the every day self,—with which in states of self-consciousness objects are contrasted, although it appears to be a simulacrum of the Self, is an "empirical ego" in all cases,—is a special form of the presentations to the Self, and is not the Self, as we shall see more clearly in the next chapter.

It becomes evident therefore that the existence of the I,—the ego,—as a presentation is not necessarily a formidable obstacle to the acceptance of the theory under consideration. For it is conceivable that the Self may be

non-presentable, as the theory demands; and yet that to it the "empirical ego" with its objects may be given as a complex presentation, in a manner similar to that in which all other complex emphases within the field of attention are given as presentations to the Self.

Sec. 6. It may be noted here that if this hypothesis is valid the empirical ego must arise out of the Self, and evidently we will thus be tempted often to fail to differentiate the two in our considerations. Thus we are all too ready to attribute to the Self characteristics which are discoverable only in relation to the empirical ego. That certain of these characteristics of the empirical ego may also belong to the Self may well be true, and we shall attempt to show by indirect evidence later on that such is the case; but that they are immediately given in reflective experience, as is often stated and more often implied, cannot be true if it is true that the Self is in its very nature non-presentable.

Sec. 7. I have above rather incidentally remarked that the presented empirical ego is to be looked upon as a simulacrum of the non-presentable Self: a point which perhaps requires a fuller explication.

In the complex nervous system each minor system of the first order is made up by the correlation of minor systems of a second order; and each of these minor systems of the second order by the correlation of minor systems of a third order; and so on indefinitely. The neururgic relations which make possible the correlated activities of any minor system are fundamentally of the same nature as the neururgic relations which make possible the correlated activities of minor systems of a higher order, and of the nervous system taken as a whole. We may say then that any given form found in the activities of minor nervous systems may properly be described as a simulacrum of a similar form found in the activities of the nervous system taken as a whole. Thus for instance the activities in the ocular minor nervous system

may be looked upon as a simulacrum of the activities of the whole broad nervous system.

Correspondingly we may say that the noetic situations within the minor noetic systems within consciousness are fundamentally of the same nature as the noetic situations within systematized consciousness as a whole. We may say then that any given noetic form found in a minor noetic system may properly be described as a simulacrum of a similar form found in consciousness as a whole. Thus it is that our experience of light sensations, displaying a focus within a field, is appreciated as a simulacrum of consciousness as a whole, which is described in ocular terms as displaying a field of attention in which a focus of attention appears.

Now the empirical ego under our hypothesis is a form involving the presentation of a mass of undifferentiable psychic parts, emphasized as a mass, to which more definitely emphasized objects accrue. But the Self under our hypothesis, on a grander scale, is also a mass of undifferentiated psychic parts; these however so fail of emphasis that they cannot appear as presentations, even as a unified mass: and to this Self presentations accrue as objects accrue to the empirical ego. The presented empirical ego thus appears as a simulacrum of the non-presentable Self, as the objects contrasted with the empirical ego appear as simulacra of the presentations to the Self. This point will be found to be of no little significance in what follows.

Sec. 8. An indirect, yet a strong, corroboration of this general view, that the Self of any moment corresponds with the mass of unemphatic neural activities of that moment, is given in the fact that we very generally attribute to other human beings Selves similar in nature to our own Selves.

I know that this conscious experience of mine is related in some way with the activity of a special human body, which I study objectively, and which has a unique character inasmuch as its activities evidently directly affect the nature of

the stream of presentations which are part of my conscious experience. But I notice other human bodies around me, and I hear them speak as my human body speaks, or act as my human body acts, in the expression of variations in the form of the stream of presentations which belongs to me; and I am led thus to assume the existence, in connection with these other human bodies, of streams of presentations similar to mine.

But I also assume that these very same actions of other individual men involve the existence in them of Selves; and this can only mean that their actions are the expression not only of their presentations but also of their Selves; and that these presentations and these Selves of other men must be fundamentally of the same nature.

If then our judgment in relation to the existence of consciousness in other men is based altogether upon our experience of the nature of consciousness as it is given to ourselves, we have no valid reason for the assumption of the existence of other Selves than ours, unless we tacitly assume also that our own Selves are as much part and parcel of consciousness as is the "presentation continuum" which we study in reflection. If I assume also the existence of other Selves in connection with these other human bodies, it is because my own Self is implicitly appreciated not only to be part and parcel of my consciousness, but also to bear a relation to my physical body very similar to that observed to exist between this body and the stream of psychic presentations, *i.e.* to be fundamentally of the same nature as the field of attention which is given in reflection.[1]

[1] If consciousnesses exist in the animals we must assume that, although simpler than ours, they nevertheless correspond in some measure with our own. And so far as we grant in an animal's conscious life the existence of something psychic corresponding with our "presentation continuum," so we are bound to conceive of this animal "presentation continuum" as standing in contrast with something psychic corresponding with the human Self. We are bound thus to assume that all animals which experience a

Sec. 9. It is impossible to study the nature of consciousness as given in reflection, as we have done in Book I., without noting that as the various parts of the nervous system display a fundamental sameness of nature, and as a unity of process appears within the nervous system, so there must be a fundamental sameness of nature and unity of process within consciousness.[1] If this is true then the analysis of presentations as given in reflection should indicate the nature of consciousness as a whole, inclusive of both the "empirical ego" and the Self. Such an analysis we have attempted to make in Book II.

In Book I. and in the course of the analysis of presentations in Book II., we have also considered, but merely incidentally, the nature of the empirical ego which as we have seen is but a special form of the presentations to the Self. The special

stream of presentations must have Selves not fundamentally dissimilar from human Selves.

It is true that as we descend lower and lower in the scale of life we find the nervous system of organic beings becoming less and less complex, and that we may conceive of an organism of so rudimentary a nature that an increment of activity in one part will affect all other parts of the system so immediately that the special activity of the part will not appear in contrast with any mass of undifferentiable activities. In such a case we would have to agree that the consciousness of the animal consists of mere "sentience," that in it no "presentation-continuum" and no Self are developed. But it is not at all certain that organisms exist of so simple a constitution, and we seem compelled to agree in any event that in all organic forms in which neural systems are developed there exist Selves of some grade, as well as "presentation continua";—Selves which must vary greatly in constitution and complication, and which in the lower forms of life must be very diverse from human Selves.

Granting all this, it may well be doubted whether any animals, except perhaps those of the very highest orders, have consciousnesses in which complex presentations of the self-conscious order are clearly developed; *i.e.* whether they experience those special presentations which give an empirical ego and the subject-object distinction.

[1] Confer my article published in *Mind*, Oct. 1902, entitled "The Unity of Process in Consciousness."

study of the nature of the empirical ego has however been reserved for this third Book, because it appeared clear that, if it is a special form of presentation to the Self, its nature could not be adequately treated until we had considered the general characteristics of all presentations to the Self which stand out clearly in reflection. And this postponement seems the more fully justified because, if our theory as to the nature of the Self is true, and if it is true that the empirical ego is a simulacrum of the Self, then a study of the empirical ego should serve to disclose to us the inner nature of the Self which cannot be given as a presentation in reflection: for in accordance with our theory, as outlined in Chapter III., as the empirical ego is constituted in its relations to its objects in states of "self-consciousness," so the Self must be constituted in its relations to the whole reflective field, inclusive of the empirical ego and of its objects.

Sec. 10. In relation to our hypothesis as to the nature of the Self it may be stated that the probability of its correctness has been greatly increased as we have proceeded with our analysis in Book II. in which we from the start assumed this nature of the Self, and studied the nature of the presentations with this hypothesis in constant view. For it is surely no insignificant corroboration of the hypothesis that the field of presentations can be subjected to such an analysis as was there given to it without developing any formidable opposition to this hypothesis as to the nature of the Self thus assumed throughout our study.

It is to be acknowledged nevertheless that this corroboration of the theory as to the nature of the Self is indirect and so far inconclusive. And in truth we are compelled to face the fact that in the very nature of the case substantiation of the hypothesis must of necessity be thus most indirect, and must always remain so, for the simple reason that the Self can never be in and of the field of attention with which alone psychology can have direct concern. Indeed, were it not for

the conception of the physical analogue of consciousness, which can be held in the field of attention for minute study, it would perhaps be impossible to develope the hypothesis at all. For it is by reference to this physical analogue that we gain the conception of the nature of the ego of self-consciousness as the correspondent of a highly complex psychic emphasis within a vastly more complex system of psychic systems; and learn to look upon the empirical ego as itself a simulacrum of the true Self which under our theory cannot at any moment of its existence be directly given in attention, although its existence may be inferred by processes which are completely within this field of attention.

Sec. 11. In what follows it remains for us in the first place to examine in detail the nature of the ego of self-consciousness, which we speak of as the empirical ego. If this empirical ego is a special kind of presentation to the Self, it should display in some form all of the qualities which we have held must attach to all presentations. If we find that it displays these qualities in such phases as its assumed nature would lead us to expect, then our view of its nature will be strongly corroborated.

Sec. 12. But beyond this, if it is true that the empirical ego is a simulacrum of the Self, then the nature of the empirical ego as given in reflection should indicate to us the probable nature of the Self which cannot be thus studied. We must then enquire by indirect means as to the nature of the true Ego,—the Self. We must assume its nature in accordance with our hypothesis, and consider what will be the effects upon the presentations to it observable in reflection, if the Self is what we claim it to be under our hypothesis; in other words we must ask ourselves whether the observable alterations of the field of attention "from within" as we say, are compatible with the hypothesis that this Self of each moment's experience is naught but the field of inattention,—naught but the psychic coincident of the mass of unemphatic

activities of the neural system to which some specially emphatic neural activity appears as an increment, this specially emphatic activity having for its psychic coincident the presentation within the field of attention.

With this examination we must remain content. If with such study no opposition to our hypothesis appears, then we must assume it to be valid unless it is replaced by some other hypothesis which is susceptible of more accurate and direct proof.

CHAPTER XXII

THE NATURE OF THE EMPIRICAL EGO. OF "FEELING"

I. The Empirical Ego

A

Sec. 1. Reference to introspection shows us that when presentations are exceptionally vivid, especially where they are due to the reception of stimuli from the environment, the empirical ego often does not appear at all in the field of attention. The vivid light, the crash of thunder, the cutting pain, the sharply marked thought which gives us the solution of a problem, appear as presentations to the Self which stand as it were alone.

But when presentations whether of a sensational or non-sensational nature, are less vivid; and especially when, as less vivid, they are prolonged; then very frequently we have the experience of self-consciousness in which these distinctly marked presentations appear as objects which stand in contrast with the every day self,—with the empirical ego which under our view is itself a presentation different from the object: or better, both the object, and the empirical ego with which the object is contrasted, appear as partial presentations to the Self within the whole presentative field,—each being partial emphases in the total emphasis which distinguishes the noetic pattern of the moment.

In current psychological writing the object thus related to the ego in cases of self-consciousness is often spoken of as the presentation to the self. Inasmuch as this ego appears itself to be a presentation to the true Self, I in all cases limit the use of the word presentation to describe psychic emphases as contrasted with the Self, and employ the word object to describe those psychic emphases which are contrasted with an ego in the complex presentations of self-consciousness.

Sec. 2. The facts above described seem most natural when we study the neururgic conditions corresponding with the states of consciousness under consideration, in connection with our hypothesis as to the nature of the empirical ego. For when a vivid sensation is experienced a very limited part of the whole nervous system becomes very emphatically active, and this emphatic activity must stand out in sharp contrast from the mass of activities of the rest of the whole nervous system. When however the sensation is less vivid, or some other than a sensational element is given, especially if these less vivid psychic emphases are prolonged, then the emphatic activity of the limited part of the nervous system has opportunity to arouse to heightened activity a whole broad minor system adjacent, if we may so speak, to the part of the nervous system in which the main emphasis of activity occurs, and we should therefore expect to find in such cases a total emphasis of double nature in which the very marked and limited emphasis would appear as a minor emphasis, in contrast with a second minor emphasis which would consist of a broad undifferentiable mass. (Confer Chapter III., Sec. 5 ff.)

It thus appears that what is the object contrasted with the empirical ego in certain cases, may under many conditions appear, in practically the same form, as the whole of the presentation to the Self. A sensation of light, a percept "this man," any special thought, may make up the whole of the presentative field; or on the other hand I may experience the

light as affecting me, the percept "this man" as related to me, the special thought as mine.

Sec. 3. This being the case we should naturally expect to find, what we do find, that in states of self-consciousness the object contrasted with the empirical ego is wont to be more distinctly prominent than the empirical ego itself. We should not be surprised however to find the empirical ego often just as prominent as its object: and this we do experience in all cases where self-consciousness becomes sufficiently clear for remark. But beyond this we should be led to expect that cases might arise where the empirical ego would become more prominent than its object,—when the empirical ego would become isolated, as it were, as the main part of, and almost as the whole of, the presentation to the Self. Such experiences we have whenever we keep in thought, and attempt to analyse the nature of, the empirical ego as we are doing here; although, relatively speaking, it is seldom that the empirical ego as such appears in isolation from the objects, which latter are in most cases in our experience the source of the appearance of the former.

B

Sec. 4. In undertaking the critical study of the hypothesis to which we are thus led we may in the first place properly appeal to introspective experience in a broad way and ask whether the ego of self-consciousness bears evidence on its face of being merely a special type of the presentations to the Self.

"It is to the imperishable glory of Hume and Herbart and their successors" says Prof. James[1] "to have taken so much of the meaning of personal identity out of the clouds, and made of the Self an empirical and verifiable thing." That I do not often refer to the writings of these masters in what follows, and especially to those of Hume, is due in the

[1] *Psychology*, i. p. 336.

first place to the fact that our method of approach is very different from theirs, but especially to the fact that I wish to make much more than any of them have done of the clear distinction between the empirical ego and the Self. That it is difficult to maintain this important distinction appears in the very fact that so few careful thinkers have done so.[1] Hume was surely concerned to consider the concept of the Self, and not the concept of the empirical ego of self-consciousness. But it is not clear that his critical analysis referred to other than the empirical ego. Prof. James in the passage just quoted states that Hume viewed the Self as an "empirical and verifiable thing"; and although it might be possible to question the accuracy of this description of Hume's position in this regard, it is clear that his language amply warrants the statement that he held such a view. I am concerned however to uphold quite another doctrine, viz. that while the Self is of consciousness it is not an empirical thing in the sense that it is "verifiable" in the field of reflection: that the empirical ego, or every-day-self, alone is thus verifiable, and that this empirical ego is not to be identified with the Self.

These successors of Hume and Herbart who have emphasized this doctrine have been many, but to none of them do we owe more than to Prof. James himself, whose analysis of the empirical ego of self-consciousness in Vol. I. of his *Psychology* may well be read in this connection by all who follow the study before us.

[1] Miss Calkins' description (*Journal of Philosophy*, v. 3, pp. 65 ff.) of the characteristics of the self for instance is a description which can only apply to a definite presentation such as the empirical ego is. She describes it as persistent and in some degree permanent, and this is a characteristic appreciated only by comparison of revivals. So also she says that it is inclusive (*i.e.* "is a complex of ideas, functions, experiences") unique, and has "relatedness with other-than-itself": all of which characteristics must belong to presentations to the non-presentable Self. As Miss Calkins is dealing with psychology she doubtless has in mind the empirical nature of what she calls the self.

No one can observe with any care that which we come to speak of as the *me* without noting that this *me* is a very variable thing, and in this we at once see a likeness with other complex presentations. We find ourselves at first thought accepting as part and parcel of this *me* a vast array of things which drop away from it as soon as we undertake to consider it at all closely. In our natural every day life it is true, as Lotze says,[1] that, "whenever we bring a foreign body into relationship with the surface of our body—the consciousness of our personal existence is prolonged into the extremities and surfaces of this foreign body, and the consequence is feelings now of an expansion of our proper self, now of the acquisition of a kind and amount of motion foreign to our natural organs, now of an unusual degree of vigor, power of resistance, or steadiness in our bearing." This Lotze proceeds to illustrate through a number of pages in his inimitable manner in connection with the dress we men and women wear, the hats we put on, the canes we carry, etc. It would indeed be appropriate to repeat his remarks in this connection in full could space be spared.

But it is not only the things which affect our bodies sensibly that we are wont to consider part of ourselves; we stretch beyond our bodies; and think of the me as inclusive of what is related to me, of what is mine in some one way or another. As Prof. James says:[2] "In its widest possible sense a man's self is the sum total of all that he can call his, not only his body and his psychic powers, but his clothes and his house, his wife and children, his ancestors and friends, his reputation and works, his lands and horses and yacht and bank account."

Sec. 5. Let a man however but attempt to analyse this crude conception of his me, and he at once finds it rapidly disintegrating before his mind's eye, or perhaps we may better

[1] *Microcosmos*, trans. by E. Hamilton and E. E. C. Jones, vol. i. book v. ch. ii. p. 592.

[2] *Op. cit.* vol. i. p. 291.

say dwindling away by a process of scaling off, as it were. For instance, almost all the matters referred to above in the quotation from James drop away in the course of such a process, and he perceives that the real me that is left is quite a different thing than it at first appeared to be. He finds that what has scaled off, so to speak, was a complex body of what were evidently presentations which in themselves were relatively clear and distinct, and which in the scaling off process become objects related to the empirical ego; what is left of the me being a vague indefinite somewhat concerning the nature of which he cannot be at all sure, but which appears to be a centre of spontaneous activity.

Whenever however, to quote Prof. James again, his "introspective glance succeeds in turning around quickly enough to catch one of these manifestations of spontaneity in the act, all it can ever feel distinctly is some bodily process, for the most part taking place within the head."[1] And as the result of these observations it is not unnatural that Prof. James should say that "if the dim portions which I cannot yet define should prove to be like unto these distinct portions in me, and I like other men, it would follow that our entire feeling of spiritual activity, or what commonly passes by that name, is really a feeling of bodily activities whose exact nature is by most men overlooked."[2]

But evidently all that we discover by this process of "turning around quickly" is a new bit of what has scaled off from the me, a new bit of relatively clear stuff of the nature of a presentation or object which indeed is scaled off with no little difficulty, but which nevertheless must be acknowledged to be of the same nature as those parts, of which we have spoken at first, which fall away very easily upon the most cursory examination.

An opponent therefore is able to claim that the real me is not thus a mere mass of unemphatic minor presentations, but

[1] *Op. cit.* vol. i. p. 300. [2] *Op. cit.* vol. i. pp. 301 ff.

is a somewhat different from these presentations, a somewhat,—a core if we may so speak,—around which these presentations crystallize as it were. This supposition is rendered doubtful however by the observation that in the final analysis the elementary presentations which we observe by "turning quickly" vary in an indefinite number of characteristics; and further and especially that they never seem to be able to scale off altogether or entirely, that they still seem to cling to this central core which itself has the "feel" of being like unto them.

Sec. 6. If we are still accused of taking too much for granted, of stepping beyond what has been actually proven by introspective observation, when we say that the me of self-consciousness is always and altogether an empirical ego made up of unemphatic minor presentations of the same nature as those which appear in self-consciousness as objects contrasted with the ego; we must ask our opponent to note that if the theory we present is valid we must always expect to fail to analyse perfectly the ego, if it be an empirical ego, into any specific elements which can be held in attention; and this for the reason that although it is a presentation, in its very nature it always must remain an *undifferentiable psychic mass* to which accrue as objects these presentations that appear to scale off if we turn about with sufficient alacrity. Under our theory therefore the failure to analyse completely the nature of the me of self-consciousness is not a proof of its being other than an empirical ego, a view which as we have seen is suggested by every shred of evidence that introspection can give to us.

We may note however that the view here upheld will be easier to maintain if it appears that the me as unanalysed and unanalysable displays all the characteristics which appear in those distinct presentations which in states of self-consciousness are given as objects accruing to the me; and in chapters to follow we shall attempt to show that such is the case.

Sec. 7. Here we may well refer to a current misconception which tends to prevent acceptance of the position here maintained. Those upholding this view are generally supposed to assume, because the presentations which scale off when we turn the mind's eye around quickly enough are emphatically of a sensational nature, that therefore the empirical ego must itself be of a sensational nature. But introspection gives no adequate basis for such a conception; for the me, which we are claiming to be an empirical ego, has a vaguer, fuller "feel" than we ever gain from mere sensational elements in attention.

This difficulty is avoided under the hypotheses maintained in the earlier chapters of this work: for under our view all elements within the whole pulse of the psychic activity of any moment must have influence in determining the form of the noetic pattern of the moment. Thus although our sensations, being our most easily revivable presentations, must in their nature be most prominent among those "scales" which appear to fall away upon our quick turning, on the sly if we may so speak, to view what we hold to be but an empirical ego; nevertheless we must assume that there are other than sensational elements which pervade the emphases within the noetic pattern of the moment in which these scales are brought into attention. We must assume that the empirical ego, could it be completely analysed, would not be found to be necessarily made up wholly of what would be sensational partial elements; but that it would be found to be made up, partly indeed of elements which would appear as sensational, but largely of other than elements of a sensational nature. In truth this is evidenced by the very fact that the vague psychic mass, which we are maintaining to be an empirical ego, itself defies analysis; for when we attempt any introspective analysis we find that it is the sensational elements that most readily break away from any psychic mass as objects of attention, while all else of consciousness fails thus easily to break away under analysis.

Sec. 8. It may be well here to consider one other view that has been brought into prominence of late years; viz. the view that the empirical ego is in a sense created by social conditions. Such a view is implicit in much current writing, and is doubtless thought to be implied by many readers of Prof. Royce when he says:[1] "Self-conscious functions are all of them, in their finite, human, and primary aspect, social functions, due to the habits of human intercourse. By means of habits gradually acquired, this contrast early comes to be extended to include that between one's inner states and the represented realities which make up the physical world."

Here we must use care in the first place to distinguish between the experience of the empirical ego in self-consciousness with which we are dealing, and the concept of the Self which is a quite different thing. My own Self is conceived objectively, just as the Selves of other men are conceived objectively. But in considering these concepts of the Self we are dealing with special presentations to the non-presentable Self, which are not such experiences of the empirical ego of self-consciousness as concern us here. It may very well be that my concept of my own Self is necessarily involved with concepts of related Selves,—is dependent upon the imagined criticism of ourselves by other Selves. But if we consider the nature, not of conceptual Selves, but of empirical egos, then it appears to me that we must hold that while the empirical ego certainly does for us mature men usually, and perhaps invariably, have some social reference; nevertheless it may often have practically only an object-in-the-outer-world reference, and I believe that for the common man this is very often the case. Beyond this it seems highly probable that in a race of individuals in which social relations were relatively very unimportant, a state of self-consciousness might be developed by mere contact with objective conditions. It is not difficult to conceive an early, prehuman, unsocial, isolated,

[1] *Studies in Good and Evil*, p. 196.

ancestor of mine, who may have developed states of self-consciousness and empirical egos by mere reference to objects in the outer world. And, as the human child probably passes through the stages of ancestral development in the unfolding of his life, I am inclined to believe that, could we read his infantile thought, we would find in him a vague recognition of the empirical ego due to mere contact with outer world objects, before social relations had in any measure colored his experience.

Sec. 9. The empirical ego, although an undifferentiable systematized psychic mass, appears to rise out of the field of inattention as a unified presentation because this mass is not thoroughly coordinated with the whole psychic system.

When we study any highly organized animal and consider the conditions of its life, we note that in it the neural activities of such a broadly related minor system as we assume to correspond with the appearance of the empirical ego may fail of that thorough coordination of which we have spoken because they are called into action by related but variable stimuli; or it may be that the environmental conditions which they involve are relatively new in the history of the race to which the individual in whom they appear belongs: or it may be, and is likely to be, that a combination of both these situations exists. The related stimuli, thus variable, may call for reactions in a broad minor system which has not yet "gained its bearings" so to speak,—which has not had sufficient experience of these varying conditions of broadly related systemic stimulation to enable it to react quickly, and accurately, and without disturbance, to the variations as they occur.

Such conditions of variable systemic stimulation, arousing to marked activity a broad minor neural system which is fully related, yet not thoroughly coordinated with the whole system, are well fulfilled in man by the stimulations reaching him, and calling for reaction, in connection with his relation

to objects in the outer world; and especially with his relation to such of these objects as are living beings; and still more markedly with his relation to those living objects which are of his own kind, and between himself and which exist what we call social bonds. Such a complex systematized neururgic increment as we have above described would be, under our theory, the coincident of the presentation in consciousness which we describe as an empirical ego: and we should therefore expect to find the empirical ego in the mature man bound up indissolubly with, and actually seeming to be dependent for its existence upon, man's relations with objects in the outer world, especially with those objects which are living and with which he is in contact, and most markedly with those living beings of his own kind with which he acts coincidently in what we call social unity. In other words we should expect to find, as we do find, that the experience of the empirical ego of the mature man involves always an objective reference, the implicit recognition of the world of objects around us, and very marked conceptions relating to living bodies, and especially to living bodies of our own type with whom we are socially connected.

But while this is true, it is not at all clear that no empirical egos can be aroused in beings less developed than the mature man, or existing under other conditions than those by which the mature man is surrounded. It is not at all clear that empirical egos may not be aroused for instance by conditions in which the recognition of the existence of other selves is not involved.

II. Of "Feeling"

A

Sec. 10. If our conception of the nature of the empirical ego is adequate then we might expect to find that the undifferentiable psychic mass of which it consists might at times be stimulated by influences within the system, rather than as the result of a limited marked emphasis which might itself under certain conditions appear as the whole of the presentation to the Self. And in such cases the psychic mass would be likely to be even less clearly defined than in cases of self-consciousness where the empirical ego is brought into emphasis as the result of a relatively narrow major emphasis which appears as its object. If a presentation of this broad systematic nature did thus appear it would be expected to display in a general way the characteristics of the empirical ego. It would in general have, or would come to have, reference to other and more definite presentations; and its reference to them would be experienced as of like nature with the relation between the empirical ego and its objects.

Now just such an experience we have in what is commonly described as "Gefuhl" by the Germans, and as "Feeling"[1] by the English psychologists. If we may judge from the way in which men speak and write of it "feeling" is experienced by all of us as a vague, scarcely differentiable, psychic mass. To use Prof. Laurie's words, it is "a vague indefinite diffused state of being" where "nothing is differentiated."[2]

[1] As we shall presently see the word feeling is commonly used in a very vague and inexact way, and it may be well to note that where in what follows I use the word "feeling" thus placed in quotation marks, I shall mean to refer to the experience which leads men to use the term, and not to any special nature which may have been attributed to the experience.

[2] *Synthetica.*

It is acknowledged by all psychologists to be very distinctly subjective; *i.e.* it is acknowledged to be closely allied to the every day self,—or the empirical ego.[1] Furthermore, while states of "feeling,"—what we call "feeling attitudes,"—may arise without any original reference to "objects," they usually display a distinctly subjective reference towards presentations which are at the same moment clearly given in attention.

If "feeling" is such a vague undifferentiable inexplicit psychic mass as we here suggest, then we should expect that while it would be aroused in some measure in connection with every state of reflection, nevertheless its presence might well be often overlooked. This quite accords with the fact that while on the one hand all important modern psychologists agree that some measure of "feeling" is present in connection with each moment's experience; yet on the other hand the general presence of "feeling" has often been so entirely overlooked that it has been regarded by many of the older psychologists as a special faculty of the Soul which only occasionally displays its efficiency.

"Feeling" then may be defined as that form of presentation which when it becomes more clear and distinct is transformed into the empirical ego,—the every day self of the common man. The "feeling attitude" is the attitude of the empirical ego not yet become explicit: as is shown by the ease with which mere "feeling" gives place to the more clearly defined empirical ego; and by the likeness between the special efficiency of "feeling," and the efficiency of the empirical ego when this latter does become explicit;—a likeness which we shall illustrate as we proceed.

B

Sec. 11. "Feeling" is so constantly referred to in modern psychological literature that it may be well to consider some-

[1] Confer "Feeling and Self-awareness," by G. A. Tawney, *Psychological Review*, Nov. 1902, for a full statement of this generally accepted view.

what at length the grounds for the acceptance of the hypothesis thus suggested.

The word feeling is commonly employed with many quite diverse connotations. Dr. James Ward, in his *Encyclopedia Britannica* article so often referred to, has called attention to four such uses of the term, viz. as equivalent (*a*) to touch, (*b*) to the organic sensations, (*c*) to the emotions and (*d*) to pleasure-pain. To this list I would add (*e*) the use of the word to express what Ward would call mere presentation itself, *i.e.* mere cases of psychic emphasis according to my terminology, and which I shall speak of in what follows as mere emphatic experience as such. It is thus for instance that Prof. James uses the word in his *Psychology* where[1] in searching for "some general term by which to designate all states of consciousness merely as such" he states his partiality for either "feeling or thought," and where again[2] he speaks of "feelings of relation," and tells us "we ought to say a feeling of *and*, a feeling of *if*," etc.

The fact that this word feeling is thus employed would in itself make the problem as to the nature of what we call feeling sufficiently troublesome; but an indefinite confusion is added when we find writers using the term in different senses at different times, and without adequate warning to the student.[3] I have just quoted Prof. James' usage of the word feeling in his *Psychology* as the equivalent of mere emphatic experience as such; but surely this is not what he means by feeling in his *Varieties of Religious Experience*[4] where he tells us that "in religion feeling is deeper than intellect." Nor does Prof. James stand alone in this ambiguous use

[1] Vol. i. pp. 185 and 186.

[2] Pp. 245 and 246.

[3] Because of this uncertainty and indefiniteness of meaning I have attempted throughout this work to avoid the use of the word feeling where I have been able to find any other word to take its place.

[4] Chapter xviii. and index reference.

of the term; a large proportion of our best psychologists must also plead guilty to the same indictment.[1]

In this connection I am constrained to enter a serious protest against such careless use of this term. Psychologists all too often speak of feeling as though the word referred to a perfectly definite mental state as to the general nature of which a common agreement has been reached: and have a way of referring to its efficiency without facing the difficulties of analysis which are presented to them. An equally strong protest may be made against the opposed habit of treating "feeling" as a state which must always remain utterly mysterious, unanalysable, and inexplicable; those who treat it thus giving up all attempt to study its nature, and yet often making use of it as a basis of explanation.

Having thus presented this difficulty I may be allowed to suggest a simple means of avoiding it which I find effective. It is simply this; when I mean emotion or passion, I use the words emotion or passion, and not the word feeling;

[1] To take a late instance; in the thirteenth chapter of his excellent *Psychology*, Prof. Angell uses the word feeling as he says (p. 257), "to designate in a general way those processes which represent and express the tone of our consciousness." He does not give us any specific definition of the word tone, but he leaves us in no doubt by the context that he means by it the pleasure-pain aspect of our presentations. Yet he at once adopts the word affection as a synonym of feeling; and the word affection certainly has an emotional suggestion. Beyond this, while he happily separates his treatment of feeling as pleasure-pain as widely as possible from his treatment of the emotions, nevertheless we find many expressions which seem to indicate that emotions and feeling are identifiable: as for instance (p. 327) "the peculiar feeling which marks each emotion off from other emotions is primarily due to the different reactions which various objects call forth,"—(337) "When we speak of sympathy we sometimes mean to indicate a definite feeling which has many characteristics of emotion,"—"the moral feeling of obligation or the feeling of conscience affords a further instance of our emotional psychoses." In this last case it may be that feeling is used as the equivalent of mere emphatic experience as such, as it appears to be where he speaks in this connection of "the feeling of dependence" and of "feelings of reverence and of faith."

when I mean pleasure-pain I use the phrase pleasure-pain, and not feeling: when I mean mere emphatic experience as such I use some other word or phrase than feeling. When one has followed this rule he is surprised to find how seldom he actually needs to employ the word.

Sec. 12. Let us now briefly consider the five usages above noted.

a. and *b.* The common man may employ the word feeling to refer to touch, and to the organic sensations; but the psychologist soon finds himself avoiding this usage. We must agree that we shall be obliged in the end to ask how it happens that the term is thus applied by the common man to these special forms of sensation, but it is very evident that "feeling" itself is fuller and deeper than any special type of the sensations.

e. In like manner we are bound in the end to ask how it happens that we so often employ the term feeling when we mean to speak of mere emphatic experience as such: but I do not think that any special student of this subject will deny that there is a psychic somewhat which is usually designated as feeling which is not mere experience as such, but a very specific kind of experience; and it would thus appear that if we are to apply the word to this very specific type of experience we are not justified in employing it when we refer to experience in general.

Sec. 13. Turning now to the use of the word feeling to refer to the emotions and to pleasure-pain, it may be well to note that we cannot allow ourselves to assume any form of total or partial identification of the emotions and pleasure-pain. The emotions, as we have seen, are one and all psychic coincidents of instinctive reactions of the organism as such; they are a special type of instinct experiences. But certainly neither pleasure nor pain as such is the psychic correspondent of a reaction of the whole organism upon its environment, as becomes apparent when we consider that very simple forms

of impression upon us may give us keen sensational pleasure or pain. The most we can say is that our emotions are usually distinctly pleasant or painful: but even to this rule there are notable exceptions, as in the case of the usual forms of surprise, which is clearly an emotion yet is one that is usually classed as indifferent. It appears thus that in the analysis we are to make we must consider separately the application of the term feeling to the emotions and to pleasure-pain.

Sec. 14. *c.* That a large number of highly intelligent people habitually identify "feeling" with their emotional experience is clear. We speak of the feelings of anger and of love for instance, and in this we surely mean something more than mere emphatic experience as such. Artists and critics of art for the most part use the word in this way; for them the man who "feels" is one who is keenly susceptible to nice changes of emotional reaction. But careful consideration surely serves to show that the experience to which we refer when we use the word feeling is something quite different from emotion.

I think it will be generally agreed, as we shall see in the next section, that "feeling" is very closely related with pleasure-pain. But if, as we have just said, the emotions are not to be identified with, or are not developed from, pleasure-pain with which "feeling" is thus closely related, then "feeling" must be in some sense broader than the emotions, for it has to do with both the emotions and pleasure-pain. Beyond this the emotions being reactive experiences are only very indirectly influential in relation to the flow of thought; while "feeling" is commonly appreciated as more than an immediate reactive experience, and as very directly influential in relation to the flow of thought. It is a well recognized fact for instance that "feeling" greatly influences belief: but it cannot be said that our emotions in themselves directly influence our beliefs; when they influence them at all they do so indirectly through the arousal of this "feeling"

which is liable to appear in connection with some of them, but not with all of them. Love, fear, and anger thus indirectly influence belief: but so far as I can see such emotions as surprise and ennui, for instance, do not.

So it would appear that what men mean by the word feeling is not emotion, although clearly emotion is liable to carry "feeling" with it.

Sec. 15. *d.* When we turn to consider the identification of "feeling" with pleasure-pain, we meet with questions which require more careful study.

Dr. James Ward speaks of pleasure and pain as "feeling proper," and as in this position he is in accord with not a few important psychologists, one who ventures to express unqualified dissent from this view, as I am compelled to, cannot do so without caution, nor without acknowledging at once that the fact that this notion is maintained by men of keen insight implies that we find in pleasure and pain a very clear exemplification of the special mental qualification of the state which might properly be designated as feeling; and this as we shall presently see turns out to be true.

If pleasure-pain is "feeling proper," then it would seem either (1st) that all the special mental forms which we naturally speak of as phases of "feeling" must be distinctly pleasant or painful, or must be summations of pleasures and pains; or else (2nd) pleasure-pain is the simplest form of "feeling," and in our complex life developes beyond this simple form into something radically different from pleasure-pain. Let us consider each of these hypotheses as briefly as may be.

Sec. 16. The first hypothesis need not delay us, for it is perfectly obvious that many of the special mental forms which we commonly speak of as feelings are neither appreciated as distinctly pleasant nor as distinctly painful, nor even as algedonic summations; but are often so thoroughly lacking in algedonic qualification that they are described as completely indifferent.

As we have seen we often speak of feelings of touch. But clearly the mass of sensations of touch determined by the clothing I am now wearing cannot be claimed to be either pleasant or painful; they are entirely "indifferent." The same is true of the great body of organic sensations which I may note in attention at this instant if I choose to do so. And the same is as certainly true of a vast proportion of the psychic items which I have described as mere emphatic experiences as such.

Turning to the emotions with which "feeling" is so often identified we find the same situation; for it certainly cannot be said either that all of them are pleasant or painful, or that they always appear as algedonic summations. For, as I have already said, surprise which is clearly an emotion is usually "indifferent," so notably in fact that Bain takes surprise as the best example of what he calls "neutral excitement."

When we sift matters down we find that what is commonly referred to as feeling is really a special form of "presentation," a special psychic emphasis, a peculiar and significant mental item:[1] and as such it is qualified by pleasure-pain, as all presentations, or specific mental items are. But it is just as clear that other psychic emphases or mental items, our sensations of taste for instance, which are never spoken of as types of "feeling," are also algedonically qualified; and this fact in itself suffices to prove that "feeling" and pleasure-pain cannot be identified.

Sec. 17. We may pass then to the consideration of the second hypothesis; viz. that pleasure-pain is the simplest form of "feeling," and that in our complex mental life it developes into mental forms which are radically different from itself.

This seems to be the view very generally accepted by those

[1] This statement the reader will recognize as directly opposed to Prof. Ward's expressed view: but I shall hope to reconcile it with his meaning later on.

who hold that in pleasure-pain we have "feeling proper," although they treat the whole question with such vagueness that one can scarcely be too confident in this regard. At all events I am able to find no other hypothesis to justify their position, and it is one the acceptance of which is not unnatural for psychologists who in their youth were deeply influenced by the teachings of the associationists, and who thus became accustomed to treat the doctrine of mental chemistry with more respect than was its due.

This view has an advantage over that first mentioned in that it does not demand that all "feelings" shall be notably algedonic; and in that it faces the fact that many such states differ radically from pleasures and pains themselves; while at the same time it recognizes the fact that what we call feelings are as a class notably pleasant or painful.

But upon careful examination we do not find this second hypothesis in any measure satisfactory. Touch and the organic sensations, and the emotions, to which the term feeling is so commonly applied, while often noticeably pleasant or painful, vary very much from time to time in their algedonic qualification; the self-same sensations and emotions are sometimes pleasant and sometimes painful. And clearly this variation of algedonic qualification could not occur without any noticeable change in the nature of the mental states referred to, if the pleasure or the pain were of their very essence.

And turning finally to that mere emphatic experience as such to which the term feeling is often applied, we may note, as we shall see later, that there is some little ground for the assumption that this emphatic experience as such is developed out of what it may be held we have a right to call feeling. But to argue that this mere emphatic experience as such is developed out of pleasure-pain as "feeling proper" involves at the outset a begging of the very question just here at issue, viz. whether pleasure-pain is "feeling proper"; in

favor of which position I am unable to discover any evidence whatever.

If "feeling" is a special form of presentations, it is to be granted that it is one in connection with which pleasures and pains of marked form are commonly given: but there is no more reason for holding that "feeling" as a distinctive state is anything that can be properly described as a pleasure-pain development, than there is for holding that psychic emphases other than "feeling," all of which are also algedonically qualified, are developed from pleasure-pain.

C

Sec. 18. We have thus found that we gain no satisfactory result by an attempt to discover the essence of feeling in any one of those special mental items to which the common man applies the term in every day speech. Our study of the problem however certainly suggests that this "feeling" is distinctly noticeable in connection with all the special mental forms we have been thus considering, and we are naturally led then to ask whether there is any psychic characteristic which is peculiarly marked in connection with the special mental states to which the term feeling is so commonly applied.

Such a characteristic I find in what we call "subjectiveness"; and in thus applying this word we express the fact that the mental states referred to bear very close relation with that special presentation, or psychic emphasis, which we describe as the ego of self-consciousness,—the empirical ego;—the every-day-self of the common man. And this is exactly what we should expect to discover if our hypothesis as stated in Sec. 10 is valid.

Sec. 19. Let us at first note how true it is that this subjectiveness is involved with each of those mental items which are commonly described as types of "feeling." We have

noted that in careless speech we often identify "feeling" with touch and the organic sensations. In such cases I think we usually use the word feeling to refer to mere emphatic experience as such, to which usage we refer below. But apart from this, touch and the organic sensations are closely associated with the body; with which in turn, as we all recognize, the sense of subjectiveness is closely associated: in other words touch and the organic sensations are not naturally considered to have any extrinsic or objective connotations, as is the case with sensations of sight and hearing. That it is for this reason that the common man thus applies the term feeling is made clearer when we note that so soon as the psychologist comes to look upon touch and the organic sensations as objective to the ego of self-consciousness he finds no more tendency to apply the term feeling to them than to sight or hearing.

Our emotions, which are so often spoken of as feelings, are notably subjective, as involving the reaction of the whole psychic system upon perceptual states.

The most frequently noted characteristic of our pleasures and pains, which Ward and others speak of as "feeling proper," is acknowledged by those who uphold this view to be their subjective reference.

And finally when we use the word feeling to refer to mere emphatic experience as such, when we say we feel cold, or feel despondent, for instance, we refer to what is inherently appreciated as our own, and disconnected from the part of the field of presentations which is identified with the field that is preeminently objective to the empirical ego.

All this gives ground for the thesis, mentioned at the close of Sec. 10 that what we call feeling is that form of presentation to the Self, which if it could become explicit would appear as the empirical ego of self-consciousness.

Sec. 20. Here it may be well to note that certain psychologists, of whom Dr. Jas. Ward may be taken as representative, appear in opposition to this view in one particular. They

tell us that in their experience "feeling" "intervenes between sensory and motor presentations," and "*is not itself a presentation*, but a purely subjective state, at once effect of a change in receptive consciousness, and the cause of a change in motor consciousness. . . . Feeling as such is, so to put it, matter of *being* rather than of direct knowledge."[1]

In my view this language is liable to misconstruction. When I speak of "feeling," as I have above, as a presentation of a certain form I mean presentative in relation to the non-presentable Self. That "feeling" *as experienced* is a presentation in this sense I think Dr. Ward could not deny. What he apparently means to indicate in the above quotation is the fact that *in states of self-conscious reflection* "feeling" does not often appear as an *object in relation with the empirical ego*, but breaks away from the object and attaches itself firmly to the empirical ego, or loses itself in the empirical ego, or appears as absorbing the empirical ego. This is clearly in accord with my own introspection, and is in accord with the thesis here presented. For under this theory "feeling" is subjectiveness pure and simple; and this means that, as the empirical ego becomes explicit, feeling necessarily attaches to, or is resolved into, the empirical ego.

Sec. 21. That the doctrine of those who follow Dr. Ward has failed to carry conviction is evidenced in the fact that some of our ablest psychologists have in late years rejected it and have suggested others, which however appear to me to be equally unsatisfactory. Two of these, viz. those presented by Prof. Wundt and by Prof. Royce, seem to demand our consideration.

Prof. Wundt looks upon "feeling" as a complex state which varies in three directions. 1. As to pleasure-pain, 2. as to excitement-depression, 3. as to tension-relief.

Now as we have seen "feeling" does display the pleasure-

[1] Dr. Ward's *Encyclopedia Britannica* Article, p. 67. Italics mine except in case of word "being."

pain qualification markedly; but if Wundt's position is to be maintained it would seem to be necessary to show, in relation to his first "direction," that all pleasure-pain is "feeling," and this is not demonstrable. The pleasure experienced in connection with a sweet taste, taken in itself, is surely not broad enough to be described as "feeling." "Feeling," as I have said above, seems to me to be in itself a special form of presentation; just as the empirical ego is a special form of presentation: and it certainly cannot be held that no other presentation than "feeling" is algedonically qualified.

Of the second of Wundt's "directions" it may be said that excitement-depression is a distinctly emotional series, and as such is of course closely bound up with the empirical ego, and therefore, under our view, with "feeling": but as we have already shown, in itself, as emotional, it cannot be held to be of the essence of this "feeling."

In tension-relief, Wundt's third direction, we have it appears to me a series which *conditions* the appearance of emotional states, of which we have just said all that is necessary; but surely in tension-relief itself we have, so far as I can see, no essential qualification of "feeling" as such.

Prof. Royce[1] holds "tentatively" that "our feelings differ from one another in at least two decidedly distinct and relatively independent ways.—First as to their pleasantness and unpleasantness," and second "as being more or less either feelings of restlessness or feelings of quiescence." As to the first point, what I have said above of the relation of "feeling" to pleasure-pain will suffice here. As to the second point I can merely say that "feelings of restlessness and quiescence" are emotional states, (if indeed the latter can be called a special state). Here Prof. Royce, it seems to me, falls into the common man's error, as Prof. Wundt also does, of carelessly including the emotions with the "feeling states." But the emotions (*e.g.* surprise) do not in all cases have that clear and

[1] See his *Outlines of Psychology*, pp. 177 and 178.

definite subjectiveness which leads us to describe our experience as "feelings"; and if my analysis of the emotions as a special type of instinct-experiences is correct they certainly cannot be properly classed as states of "feeling proper." That our emotional states are bound up often with "feeling states" is not for a moment denied, nor is it denied that the one may readily displace the other in attention. But to identify the two forms of experience seems to me to be a mere confusion.

Sec. 22. Finally I may say a word in reference to the relation between the thesis here suggested and aesthetic theory. The aesthetic experience of an appreciative person in the presence of a great work of art might well be described as a resolution of consciousness into "pure feeling." As I see a great Rembrandt or hear a Beethoven symphony, I am overwhelmed; and in retrospect find my state of mind difficult to state in terms of normal experience; but all will agree that the state given is one to which we may well apply the term feeling; in fact one might well call it a state of saturated "feeling." And, as such "feeling" it is surely given as a presentation. At the same time self-consciousness seems to disappear. In the moment of my ecstasy "feeling" is there, but I do not apprehend *myself* as appreciating the "feeling." Nor does my ego appear as discriminating. Beyond this the object which brings the feeling state becomes of no importance: I care not who painted, or who composed; nor do I care through what means, or by the emphasis of what elements, the entrancing result is gained. Self-consciousness is dissolved away, and in its place we have as a presentation that mere psychic mass which under my view is identical with "feeling."

Sec. 23. One point referred to above I must mention here in closing. Consciousness according to the view maintained in this work is a vastly complex systematized psychic mass, in which during our active life psychic emphases occur

which are commonly spoken of as presentations. And these psychic emphases, or presentations so called, must of course appear as arising out of this complex psychic mass.

If any indefinite systematized psychic mass, narrower than the psychic mass as a whole, can itself appear as a presentation or psychic emphasis, we shall have in it a simulacrum of the whole broad systematized psychic mass out of which our normal flow of psychic emphases or presentations appears to arise. But under our hypothesis "feeling" is just such a minor indefinite systematized psychic mass which as a whole appears as a presentation to the Self, as a psychic emphasis within consciousness taken as a whole. We are therefore not surprised to find that careful introspectionists, men like Horwicz for instance,[1] have been led to hold that in "feeling" we have the fundamental psychic situation out of which all forms of psychic emphasis or presentation arise.

[1] Confer also Prof. Laurie's view as contained in his *Synthetica*.

APPENDIX B

THE QUALITIES OF PRESENTATIONS AS DISPLAYED IN THE EMPIRICAL EGO

I. The Empirical Ego and the General Qualities of all Presentations

If the empirical ego is a special form of the presentations to the non-presentable Self, some phase of each of those general qualities which we have found to attach in one form or another to all presentations must necessarily be displayed in connection with it. Let us ask whether we find evidence in support of our view when we consider how far we should expect these general qualities to be emphasized in connection with the empirical ego, if it is of the nature we ascribe to it; at the same time attempting incidentally, in corroboration of our hypothesis as to the nature of "feeling," to show that the same relation which exists between the empirical ego and these general psychic qualities obtains between these latter and the realm of "feeling."

A. The Empirical Ego and Manifoldness

Sec. 1. If the empirical ego is an undifferentiable mass of unemphatic psychic elements, and is the coincident of an undifferentiable mass of neural activities which is emphasized as a mass, then this neururgic mass must be made up of many neural activities of nicely balanced grade of emphasis. We should therefore expect to note that the correspondent empirical ego, while displaying an individuality of its own, nevertheless displays also a high degree of manifoldness; and that this is a fact will not be questioned, when we consider how vague and indistinct, how broad and pervasive, it is.

Sec. 2. This being true of the empirical ego, if we are correct in our view that what men call feeling is the empirical ego not yet explicit, then we should expect to find the realm of "feeling" in like manner vague and indistinct, broad and pervasive: which it surely is.

B. The Empirical Ego and Intensity

Sec. 3. We have seen in a previous chapter that noticeable manifoldness and noticeable intensity vary inversely. If then the empirical ego displays a marked degree of manifoldness, we should expect that nothing within the empirical ego would display a relatively marked intensity. That this accords with experience is indicated by the fact, noted above, that as soon as any such intense noetic emphasis arises within the empirical ego it scales off as it were, and becomes a recognized presentation, or part of such a presentation, which is distinctly differentiable from the empirical ego, and which may be appreciated as an object contrasted with the empirical ego.

Sec. 4. This being true of the empirical ego we should expect to find, as we do, that the realm of "feeling" is not appreciated as developing any marked intensities within itself. It is true that we at times speak of intensity of feeling, but in such cases we use the word to refer to certain emotional states with which, as we have seen, "feeling" is without doubt closely connected, but with which it cannot be identified.

C. The Empirical Ego and Attention

Sec. 5. Although the empirical ego is distinctly qualified by manifoldness, and is not markedly intense as intensity is objectively measured; nevertheless at times it might well appear as relatively intense in contrast with a still broader field in which manifoldness is very markedly developed; and as attention is our name for the appreciation of the relation of a special intensity to a broader field of manifoldness we should expect to find that the empirical ego may appear as an "object of attention," just as all other presentations may so appear. And we of course do all experience the existence of the empirical ego as an occasional object of attention; we experience it thus whenever we are markedly "self-conscious"; the reader is

now experiencing it thus if he follows my thought with introspective examination.

But if the empirical ego is to be given in attention in isolation as it were it must be because at the time no special psychic element is sufficiently emphatic to appear as an object related to this empirical ego. If I wish to experience the empirical ego in itself I must cut off all emphatic stimuli reaching me from my environment which compel attention to their psychic coincidents: and furthermore must artificially exclude from attention, by a process of concentration of thought upon this empirical ego, all less marked psychic emphases which would normally appear in the focus of attention.

It appears thus that the more prominent this empirical ego is in attention the more will its objects be excluded. Evidently then where the empirical ego becomes prominent in attention we should look for disturbances of the normal flow of thought, and for failures of such accurate and effective reactions upon our environment as occur in the vast majority of the moments of life in connection with vivid attention to the psychic coincidents of stimulation from our environment, and to our bodily movements. We should expect therefore to find the person who is vividly self-conscious tending to lose control of his flow of thought and of speech, as he does in what is known as "stage fright" which so often overwhelms a speaker when he finds his attention concentrated upon his personality rather than upon the audience before him. We should expect also to find, as we do, the self-conscious person acting in manners strange and unpredictable: the most vivid sense of self-consciousness results in inefficient action in the emergencies of life: to be effective men, we must "forget ourselves," and must keep before our minds objective presentations only.

Sec. 6. If our view as to the nature of "feeling" is adequate we should expect to find that "feeling" also may be an object of attention, as is surely the case. But as this "feeling" is less clearly defined than the more thoroughly systematized empirical ego we should expect it to be less commonly found as an object of attention than the empirical ego itself: an expectation which is surely met in our experience. Beyond this, when "feeling" is very marked in attention, to the exclusion of objective presentations, we should expect to note derangements of our effective reaction upon our environment similar to those noted when we are markedly self-conscious: and it

is agreed by all that the man whose mental state is predominantly a state of "feeling" is not in good condition to cope with those emergencies arising in practical life which require delicate adjustments within the field of attention.

D. The Empirical Ego and Realness

Sec. 7. We have seen not only that each presentation as such has a measure of realness all its own, but that it is recognized as having more or less of realness in relation to varied noetic patterns in which it may appear; if therefore the empirical ego is merely a special form of presentation it should display this characteristic of varying degrees of realness. That it does so is seen clearly when we consider the phenomena of so called double consciousness, which we study more thoroughly in Chapter XXVI. Here one finds his egohood split up into what he cannot but think of as a double ego, or as two egos; and under our view we should naturally find ourselves asking which of these two empirical egos is the real ego, in most cases becoming convinced of the essential realness of one rather than of the other. It is evident not only that this happens to the person subject to changes of egohood under morbid conditions, but that it happens also in our normal life where the double egohood appears without our general recognition of it as such. From moment to moment we find ourselves looking back to the deeds of the past with shame and sadness, and claiming that they were not due to what we speak of usually as our "true selves": they appear to have been the result of the efficiency of empirical egos which are unreal in comparison with the special empirical egos of reflection which are then real for us.

As we have seen in Chapter XV., when the realness of a presentation is distinctly appreciated we usually find ourselves noting the object-subject relation, without however necessarily appreciating the existence of the empirical ego, or its relation to the object. In this object-subject relation as thus noted the very real presentation stands out prominent but in contrast with and related to a broad field which displays marked manifoldness, and less of realness; the very real presentation displaying what we term objectiveness, the less real field of manifoldness displaying what we term subjectiveness which is usually less explicit than the objectiveness. But the empirical ego is under our view just such a broad field which displays marked

manifoldness, and we should expect therefore to find, as we do, that when the object-subject relation becomes clearly defined it involves the appearance of a clear case of self-consciousness in which the vague subject developes into the more distinct empirical ego.

But if this is true then it must be that in the complex presentation of self-consciousness the empirical ego has less of realness than the object: and this is a point which will not be easily acceptable to the average man who will be likely to say that if any one thing appears clear to introspection it is that the empirical ego is peculiarly and typically real. It becomes evident however upon further consideration that when on the one hand we thus speak of the empirical ego as very real, and when on the other hand we speak of it as unreal in relation to its object, we are describing very different presentations. In the latter case we are referring to the appreciated empirical ego in a case of self-consciousness. In the former case where the empirical ego's realness seems so clear we are dealing with a concept of the empirical ego which is actually at the moment an object of attention, and as such may be, and often is, set over against an appreciated empirical ego in a self-conscious moment. It is this conceptual empirical ego, and not the empirical ego appreciated in the moment of self-consciousness, that we find so very real.[1]

[1] We may ask whether in accordance with our view we should expect this concept to be thus characterized by realness. Whenever we consider the nature of the empirical ego with care it evidently is for the moment the most emphatic part of the field of attention: we then view the empirical ego in itself as a totality, without comparing it with any part of, or with the whole of, its object. If this empirical ego is a broad undifferentiable psychic mass, then, although its elements must be constantly altering in form and intensity, they must alter in such minute degrees as to prevent any special emphasis of any one of the elements: for just so soon as any element is increased in its intensity to a noticeable degree it in that very fact "scales off" from the mass which is the empirical ego, and becomes part of the object contrasted with this empirical ego. When therefore we view this empirical ego in itself, as a totality, as an undifferentiable mass, without comparison with any part of, or the whole of, the objects related to it, it upon which our attention is concentrated must as a mass have a relative stability in comparison with any unemphatic object which may appear under such conditions of attention. It appears quite natural then that we find this sense of stability or realness to be emphasized in relation to our experience of the conceptual empirical ego.

But when we note a whole state of self-consciousness (*i.e.* both the empirical ego and its object) as the object of attention; then we should at times find cases of self-consciousness where this empirical ego is not the most emphatic part of the field of attention, and where therefore a larger measure of realness might very well attach to the object than to the empirical ego; in which case the realness of the empirical ego would appear to be diminished.

That this does occur in our experience is very clear in the fact, already referred to in Chapter xv. above, that when we are considering distinctly marked objects, in relation to the existence of their realness, we are wont to describe what fails of realness in them as "merely subjective," *i.e.* as belonging to the empirical ego. The fact of this detachment of the psychic item from the whole object which is appreciated as real, and of the attachment of this item to the empirical ego, shows that the empirical ego in such cases is recognized to be relatively unreal, as is rendered the more clear when we note that in common language the term "subjective" is treated as the equivalent of "imaginary," which latter word involves very generally the connotation of unrealness.

If these views are correct we might expect to be able to discover cases where while still holding our attention fixed upon the empirical ego we nevertheless lessen its realness by thinking it into a noetic pattern in which it appears as but a part of a broader entity. This we do when we think of ourselves as but elements of a social consciousness; or more clearly still when we look upon ourselves as but elements of a universal consciousness, or of an Absolute: and in such processes of thought we have a clear corroboration of our view. For in such cases we discover that the empirical ego slips away from its firm ground of realness; that our individuality appears unreal in comparison on the one hand with the social ego, if we may so speak, or with the *socius* to adopt Prof. Mark Baldwin's term; and on the other hand still more unreal in comparison with that conception of the Absolute, which those who are able most fully to attain this position feel for the moment to be the only Real.

Sec. 8. If we have thus stated correctly the relation of the empirical ego to realness, and if our view as to the nature of "feeling" is adequate, we should expect to find, what we surely do find, not only that "feeling" as a mere presentation in itself has the same measure of realness that attaches to all presentations as such; but

that when "feeling" stands in contrast with objectified presentations, a sense of relative instability,—of unrealness,—attaches to "feeling"; it is likely then to be spoken of as "*mere* feeling" in contradistinction from what is real in the realm of objects; and it is this contradistinction that leads to the very general recognition of the subjectivity of "feeling."

Noting that the more objective a presentation appears the less subjective it appears, we have an explanation of that supposed opposition between perception and "feeling" of which some psychologists have made so much.[1]

E. The Empirical Ego and Pleasure-Pain

Sec. 9. If pleasure and pain as appreciated in connection with special presentations to the Self are determined respectively by the efficiency and inefficiency of the nervous activities co-incident with the appearance of the presentations, then the empirical ego as a special form of presentation should, when considered in itself, display in some measure the pleasure-pain characteristics appropriate to its constitution as an undifferentiable psychic mass.

In such an undifferentiable psychic mass the great body of psychic elements of which it is composed must be well-balanced as to intensity, and devoid of vividness. But pleasures as well as pains of any marked degree are bound up with distinguishable intensity of the psychic elements in connection with which the pleasures or the pains are appreciated. We should expect therefore that under ordinary conditions the empirical ego *when considered in itself* in attention would fail to strike the introspective observer as a presentation in connection with which distinct pain or pleasure is developed: should expect that it would usually display that summation of pleasures and of pains of exceedingly low degree, or that balanced condition of transition between pleasure and pain, which we speak of as indifference. I think it will not be denied that this expectation is in general fulfilled in the experience of every day life.

It is conceivable however that a large proportion of the psychic

[1] Confer Horwicz, *Psychologische Analysen*, i. 59. "Je objectiver und theoretischer eine Wahrnehmung, desto gleichgiltiger ist sie fur das Gefühl und umgekehrt; je gefühls-starker eine Empfindung, desto weniger giebt sie objective Wahrnehmung."

elements involved in the appearance of the empirical ego might be all very moderately pleasant or all very moderately painful, so that by a process of summation the whole empirical ego would appear to be pleasant or painful. We are not surprised therefore to find that we do at times note a distinctly pleasant empirical ego under certain conditions of unusual bodily vigor; *e.g.* when one is exercising with moderation in a bracing atmosphere, the blood supply bounding forward to nourish the whole active organic system: in such cases the use of the surplus store of energy throughout the length and breadth of the nervous system being accompanied by a mass of pleasant elementary presentations among which are those which go to form the empirical ego. And this leads the man to exclaim that it is a delight merely to live;—it is a joy merely to be the vigorously active psychic system of undifferentiable elements which constitutes his empirical ego;—his *me* is itself a distinctly pleasant presentation. Similarly we note the existence of empirical egos which are summationally painful, such as we appreciate under conditions of excessive depression, or of restraint from normal activities, as for instance when we are ill or weary, or when we contend against adversity or misfortune. Then it is that we enquire whether life is worth living; then in other words that we ask ourselves whether this painful empirical ego of ours is a thing we wish to perpetuate.

Sec. 10. We have been speaking thus far in this connection of the empirical ego as it appears when it is the marked emphasis within the field of attention: but when we consider cases of full self-consciousness in which both the empirical ego and its object are within the field of attention the algedonic aspect of the empirical ego appears in a different light. The empirical ego is a complex mass of an indefinitely large number of psychic elements of relatively low degree of emphasis and hence undifferentiated; while the object appearing as contrasted with the empirical ego consists of a relatively small number of psychic elements whose emphasis is of relatively high degree. Inasmuch then as pleasure and pain are under our view qualities inherent in psychic elements we should naturally expect in those cases where pleasure and pain are considered in themselves *as related to the whole self-conscious state*,—*i.e.* to both the empirical ego and its object,—that the *masses* of pleasure and of pain, as masses, would on the whole be more marked in connection with the broad empirical ego than in connection with the relatively narrow object.

It will of course be at once conceded that this expectation is fully realized: for it is very generally held by the psychologists of our time that pleasure and pain are pre-eminently subjective phenomena: and in terms of our theory this is merely equivalent to saying that when we consider pleasure-pain in itself, in relation to the empirical ego and its object together, the masses of pleasure and of pain attach so fully to the very broad empirical ego that the pleasure or the pain which may attach to the relatively narrow object is overlooked.[1]

[1] This subjectiveness of pleasure-pain is so often discussed as if it were an experience of unique type that it is worth while to note here that our usual appreciation of pleasure and pain as among distinctly subjective phenomena, and their corresponding exclusion from among objective phenomena, is quite comparable with the obverse fact that in our appreciation of intensity in the observation of attention intensity is usually noted as connected with objects, and as disconnected from the relatively vast mass of psychic elements which constitutes the empirical ego.

But notwithstanding this fact that intensity, as appreciated in attention, is looked upon as for the most part bound up with objects, as distinguished from the empirical ego; nevertheless it is generally acknowledged that this empirical ego itself may be, and often is, distinctly attended to.

So in like manner, but obversely, while pleasure-pain is for the most part considered in itself as subjective, that is as bound up with the empirical ego; nevertheless it is impossible to deny that pleasure-pain is often distinctly attached to the object, *i.e.* that it is often distinctly objectified. As we have already seen, the limits of pleasure-pain experience in connection with the object are narrow in comparison with the broad limits of pleasure-pain experience in connection with the empirical ego, and it is this fact that has led to a failure to note the occasional objectification of pleasure-pain. But where this pleasure, or this pain, is very vivid we do distinctly detach it from the empirical ego, and look upon it as a quality of the experienced object; as for example when one thinks of the pain of a wound as inherent in that "object in the outer world" which we describe as our body; in fact the man who has had a limb amputated frequently goes so far as to objectify a pain in space quite outside of his body as it exists. Confer Dr. Santayana's definition of Beauty as objectified pleasure.

This fact is again clearly evidenced by the persistent attempts to differentiate "physical pleasures" and "physical pains" from all other pleasures and pains. Those who defend this view would call all these other pleasures and pains subjective, and they at times designate them as unpleasantnesses and disagreeablenesses to distinguish them from physical pleasures and pains; that is to say, they hold that most pleasures and pains are attached to the

Sec. 11. If the suggested likeness between the empirical ego and "feeling" holds, then we should expect to find that while "feeling" when considered in itself may be so mildly colored with pleasure or pain as to be called indifferent, yet in many cases the summation of the algedonic qualities in the broad psychic mass will make "feeling" a source of powerfully massive pleasure, or of powerfully massive pain. This expectation is of course met in experience. That "feeling" is for the most part altogether indifferent, and is easily overlooked, is clear in the fact that many of the earlier psychologists spoke of "feeling" as a special faculty or state which only occasionally appears in experience; a view that is now generally discredited.

As we have seen, when pleasure-pain is considered in relation to the double aspect state of self-consciousness it is less closely identified with the object than with the empirical ego, *i.e.* is held to be especially subjective. Similarly we should expect to find pleasure-pain especially identified with that inexplicit empirical ego which we call "feeling"; and that it is thus identified is clear in the fact, already noted, that so many psychologists have held that "feeling proper" is nothing more nor less than pleasure and pain. The fact that pleasure-pain has in general this subjective connotation explains also how it happens that so many psychologists are content to describe pleasure and pain as being essentially part and parcel of what is called the mass of "feeling," which under our view is nothing else than this empirical ego not yet become explicit.

empirical ego, while the "physical" pleasures and pains on the other hand are distinctly attached to the object of attention much as the sensational differential qualities of color, and warmth, and pressure, and sound, are attached to the object of attention. In this, these theorists clearly note an objective qualification of pleasure and pain. It is due to a strangely persistent error of interpretation of this introspective experience that so many learned psychologists describe pleasures and pains as sensational phenomena, and that such persistent and necessarily ever futile attempts have been made to discover some neural mechanism concerned in the production of these "physical" pleasures and pains of a nature comparable with the neural mechanisms concerned with the appreciation of the sensations proper. For a fuller discussion of this question confer my *Pain, Pleasure and Aesthetics*, ch. i. sec. 4, pp. 15 to 32.

F. The Empirical Ego and the Time Quality

Sec. 12. The empirical ego, if it is a form of presentation, should display the time quality in such phases as are appropriate to the conditions under which it appears in attention.

If we consider first the empirical ego in itself as definitely attended to, it will not be questioned that the empirical ego has the same characteristics that lead us to speak of all presentations as parts of a "stream" in time, or of a time flow.

It is clear also that presentness is often definitely attributed to an empirical ego; which leads us to think of it as here now. Equally clear is it that the empirical ego often has a distinct pastness qualification which leads us to think of it as of the past: in fact, as Sully[1] says, "self-consciousness, in its higher and clearer forms grows out of the memory of the past"; that is to say, without these experiences of the empirical ego which have the pastness qualification self-consciousness would not be what it is for us.

It is not so easy however to distinguish the clear futureness qualification of the empirical ego. It is true that we often think of ourselves as likely to exist tomorrow just as we usually think of objects in the outer world as likely to exist tomorrow; but it is certain that the sense of the present and past existence of my empirical ego is much more fixed in mind as of its very essence, than is any sense of its future existence:[2] and the explanation of these facts is not far to seek. The empirical ego is in its very nature distinguished by a well balanced degree of emphasis in an indefinitely broad system of psychic elements. On the other hand the characteristic which leads us to the recognition of futureness is a break in this well balanced

[1] Sully, *Human Mind*, 1, 328. Compare J. S. Mill, Note to Jas. Mill's *Analysis*, ch. v. p. 228.

[2] Yet it seems apparent that this futureness aspect of the empirical ego must be dimly apprehended by us, for otherwise it is difficult to understand the prevalence of the conviction of the immortality of the soul. I would not suggest that this conception of the future existence of the Self is rightly grounded on any such experience of futureness in connection with the empirical ego: but evidently the notion of a future continuance of a Self could not have found such common acceptance had not our introspective experience involved the appreciation of the anticipatory characteristic in the empirical egos of every day life.

degree of emphasis, is a "budding" to use Prof. James' word: and this budding as recognized at once appears, not as of the empirical ego, but as of the object contrasted with the empirical ego.

Sec. 13. Turning now to the consideration of the temporal relations of the fully developed state of self-consciousness in which both the empirical ego and its objects are given in attention; it is apparent that we are prepared to find with Dr. James Ward[1] that as introspective psychologists we must hold that time belongs "neither to the subject alone apart from the object, nor to the object alone apart from the subject, but to experience as the duality of both." On the other hand if the time flow is determined as we have held, by a form given by a special relation existing between the elements of a complex presentation, it cannot be expected to be noted distinctly except where the parts of the presentation as such are more or less emphatic. This emphasis of the parts of the total presentation is not characteristic of the empirical ego, and is characteristic of the object which is related to this empirical ego; hence when we consider timeness *in itself* in relation to the whole of the double field of self-consciousness, and when the empirical ego itself is not very distinctly apprehended, we should expect to find that the appreciation of time would be usually considered in connection with an emphasis of the object. I imagine that most of my readers will agree that such is the case. Those metaphysicians who defend the notion that the Self exists without relation to time are thus struck by no opposition in their every day experience to the view they uphold. In their thought, time is so closely attached to the stream of percepts and concepts, which are objects contrasted with the empirical ego, that they come to think of time as a form necessarily inherent in them alone.

And yet under certain conditions we should expect to find this emphasis reversed. When the empirical ego is more prominent in attention than its object, the time quality as a whole might be expected to appear more emphatic in connection with the empirical ego than in connection with the object. For if the empirical ego is a psychic mass of undifferentiable elements of indefinite number, and of low amplitude so to speak, then the time quality, which is determined by the relation of the constantly increasing and fading elementary parts of the presented psychic mass, might be expected at times to catch

[1] *Naturalism and Agnosticism*, vol. ii. p. 149.

attention, even where the elements in connection with which this time-flow is developed cannot be differentiated or observed as objects in themselves. In the same way, as we have seen, pleasure-pain as summationally appreciated is attached thus to the empirical ego.

That this expectation is met in our experience seems to be indicated by the fact that a large number of philosophers have claimed that time is a form given to experience by the Self. Surely such a doctrine could not have been upheld so widely had it not corresponded with certain of the experiences of those who enunciate it;—could not have been maintained had they not dimly grasped the fact that when the object of attention is a state of self-consciousness, *i.e.* an object related to the empirical ego, and *a state in which the empirical ego is the more distinct in attention*, then the timeness of the object *in itself* is unimportant in comparison with the timeness of the empirical ego which seems to compel the object to assume the time-flow character if it would be assimilated and apprehended.

Sec. 14. Turning to the relation between "feeling" and the time sense, we note here again the likeness of this relation with that between the empirical ego and the time sense. "Feeling" as attended to, like all other objects of attention, displays the time flow. It is also well recognized as a present, and as a past form of experience; but it is not easily appreciated with a futureness qualification: we realize that we are now feeling, we recall that we have felt deeply, but we do not so often look forward with expectation to a future state of "feeling."

II. The Empirical Ego and the Special Psychic Qualities Treated in Appendix A

A

Sec. 15. It will occur to the reader that if this empirical ego is of the nature above described then there is a large probability that the minor psychic system of which it consists must at times vary in the nature of the psychic elements involved, and that we should expect to find it tinged at times with those special qualities which we have seen are determined by the fact that the corresponding neururgic emphases occur in specially limited and differentiated neural parts. In other

words we ought to be able to distinguish in the empirical ego, at times sensational qualities, at other times characteristics pertaining to our instinct experiences, and at still other times ideational qualities, as the field of attention is roughly divided into regions of sensation, of instinct-experience, and of ideation.

Sec. 16. That we may experience as a presentation what we may call a sensational empirical ego is made clear by the analysis by Prof. James to which we have referred above, which seems in the main in agreement with common experience. He says[1] that for him, "the 'Self of selves,' when carefully examined is found to consist mainly of the collection of peculiar notions in the head or between the head and throat. I do not for a moment say that this is all it consists of, for I fully realize how desperately hard is introspection in this field. But I feel quite sure that these cephalic motions are the portion of my innermost activity of which I am most distinctly aware."

It would appear that what Prof. James is here describing is really what I have spoken of above as the last observable scales which break off from the empirical ego as we study it in reflection. Although these are really just appearing objects contrasted with the empirical ego, nevertheless they are so intimately bound up with it that they surely indicate something of its nature; and in such cases this nature seems to be very distinctly sensational.

Sec. 17. The experience of a sensational empirical ego appears so very clear under such scrutiny as we have been describing that some men with Prof. James find it difficult to see that the empirical ego

[1] *Op. cit.* vol. i. p. 301. Prof. James' introspection as above noted has probably been corroborated by the experience of many of his readers; nevertheless I think he describes only a special case in which under a very searching examination the empirical ego appears as he describes it. One might agree that this empirical ego may indeed often appear to be of a sensational nature, and yet might hold that the limitation to "peculiar *motions*" in or about the head is often transcended in moments of less careful attention. Most noticeably when we are "falling asleep" for instance, but even now for me as I write, the empirical ego thus appears to be made up in an emphatic degree of a sensational content much more widely pervasive than the mere motor realm. It is identified with the whole broad mass of the body, and this is brought into attention principally by sensations indeed, but by sensations which are localized in the trunk and arms and legs as well as in the head.

is not always sensational in its nature : a little closer study however will serve to show that we experience empirical egos which are distinctly tinged by emphases of the instinct-experience, or of the ideational, types.

It appears to the writer that the empirical ego of ordinary introspection, familiar to the psychologist, when he is not attempting so careful an analysis as that referred to by Prof. James in the quotations made above, is clearly an ideational empirical ego : and, on the other hand, that when we are emotionally agitated the empirical ego is distinctly pervaded by the special characteristics of the instinct-experiences (of which, as the reader will recall, the emotions are a special type), and of the impulses which are determined by the obstruction or inhibition of the natural outflow of the instincts. It is to these ideational and emotional empirical egos respectively in fact that unrecognized reference is made where the common man makes the distinction between the leadings of his "head" and of his "heart," a distinction which was not uncommonly treated quite seriously by earlier psychological writers. His empirical ego at one moment is described as part and parcel of the head, and his empirical ego in another moment is described as part and parcel of the heart. By the heart he here clearly means his emotional experience, as he has learned to speak of the special perturbations of the circulatory system which go with emotional experience as descriptive of the emotional states themselves. By the head he as clearly means the ideational experience of ordinary introspection, having learned to speak of those disturbances which are localizable in the head, and which are emphatic when we "think hard," as descriptive of the states involved with ideational experience.

Beyond this, when we say that a given state is subjective in its nature we evidently mean that it is bound up with, and is of the nature of, the empirical ego. Now it is perfectly clear that we naturally speak of the reactive states, the instinct-experiences and emotions, and of the conative states impulses and desires, as subjective : that is we identify them with the empirical ego.

Moreover the fact that we recognize an instinct-experience emphasis in the empirical ego is evidenced in the modern emphasis of Will in many philosophical systems since Schopenhauer wrote. If Reality be conceived of as Will, and if the individual's ego be conceived of as a special exemplification of the Universal Will,

then it must be that the one who follows this line of thought appreciates his empirical ego as definitely conative, as distinctly tinged with instinct-experience and impulse. But a consideration of similar nature shows us how certainly the empirical ego is often appreciated as of ideational type, in the fact that men of marked ability have upheld, and still uphold, systems of Idealism of an Hegelian type. If Reality is conceived as Idea, and if the individual is conceived as an aspect of this Universal Idea, then the thinker who upholds this view must find in his experience a close bond of unity between the nature of his empirical ego and the realm of thought,—of ideation.

Sec. 18. If our view as to the nature of "feeling" is correct we should expect to find "feeling" somewhat commonly identified with our sensations, as we have just seen the empirical ego is thought of as of a sensational nature: and that such is the case is clearly shown in the fact already noted that the common man so frequently uses the word feeling when he would refer to touch, and the organic sensations. But that "feeling" is not appreciated as exclusively sensational is shown in the fact, also already referred to, that the word feeling is often used to describe mere experience as such, which of course includes presentations in the ideational and in the reactive realms. That "feeling" is often conceived of as especially bound up with the reactive realm is shown in the fact that the word feeling is so commonly employed as the equivalent of the word emotion.

B

Sec. 19. In closing it may be well to say a few words concerning the relation of the empirical ego to that very notable special "sense of relation" which gives us our appreciation of the spatial quality, and which leads us to speak of certain presentations as objects existing in an outer world: this spatial quality being in our view a special quality of relation determined by the coincidence of emphases which appear very persistently in our experience, the emphases which bring this relation most clearly into prominence being of a sensational-perceptual nature, or closely allied thereto.

So far then as the empirical ego has a sensational emphasis we might expect to find it at times spatially qualified: and such is

clearly our experience so far as we identify the empirical ego with our bodily sensations. This spatially qualified empirical ego is of course a crude thing: for when we attempt to analyze the "bodily feel" with which we identify it the sensational attributes at once begin to scale off as we have seen, and at once appear as presentations diverse from the empirical ego. Nevertheless the normal man, who does not stoop to careful introspection, looks upon *himself* as big or little as he happens to think of himself as important or unimportant in the total world of his thought concerning objects in the outer world.[1]

But as I have indicated above our general tendency to make too much of the sensationally qualified emphases in attention leads us to make too much of the sensational type of empirical egohood, and to overlook the non-sensational-perceptual types to which the spatial characteristic cannot be expected to apply noticeably. And it thus happens that careful introspection shows us these object-in-the-outer-world characteristics of the ordinary empirical ego splitting off from it and appearing as objects contrasted with it. The more carefully we observe the nature of this empirical ego the more vague and elusive and non-sensational it appears, and then as we have seen we are led to hold that the body is not the real essence of the empirical ego, which latter is a core quite apart from the world of objects to which alone spatial attributes attach, and part of which the man's body is.

As we have seen the spatial quality is in some way bound up with, or as some would say derived from, the recognition that other selves than ours join in a common experience. It is interesting then in this connection, where we are considering the non-spatiality of certain types of the empirical ego, to note that as soon as we realize that a special experience belongs to our own empirical egos only, its externality is at once in large measure lost. The rainbow is thought of by me as an object in the air: *i.e.* it has marked spatial qualifications, until I am assured that each of us has his own special

[1] This is brought out quite clearly in connection with certain morbid states which are experienced by many at times of bodily disturbance, and at times when we dream. Normal men not infrequently dream of being giants of form and strength, or of shrinking to minute proportions: and insane and hysterical patients often find themselves oppressed by illusions of the same general nature.

rainbow, when at once my rainbow is thought of as in my own subjective experience rather than in space. With this assurance that the rainbow is mine only the spatial quality in connection with it loses all its emphasis,[1] for the reason that the empirical ego is recognized to be in the main non-spatial.

Sec. 20. We have just seen that as the empirical ego becomes less explicit its nature tends to be less identified with the sensational-perceptual realms in connection with which the spatial quality is markedly developed; hence if "feeling" is as we suggest the empirical ego not yet become explicit we should not be led to look for any emphasis of spatiality in connection with "feeling." It seems fairly clear that it would generally be held that "feeling" is non-spatial; that we find little in it that suggests the outer-world aspect of experience, although we at times note the characteristic which leads us to attach it closely to the body.

[1] I would not imply that all spatial characteristics are thus lost; for the rainbow even as thus correctly conceived seems to me to display still those spatial characteristics which develop in the conceptual realm.

CHAPTER XXIII

THE NATURE OF THE SELF

Sec. 1. We may turn now to the consideration of the nature of that Self in relation with which are contrasted those emphases in consciousness which make up the field of attention; the Self which is thought of as receptive of these emphases when we speak of them as presentations, and as reactive in relation to them.

The average man as we have seen finds no problem here, for assuming that this Self is the ego of his self-conscious states he is not brought face to face with difficulties which we meet who have been led to see that this every day self is an empirical ego; that it is merely a special form of those presentations which make up the field of attention; that it is itself given as a partial presentation to the Self in the moments of self-conscious reflection in which this elusive Self escapes our analysis; that its very existence as a presentation involves the existence of a Self which is not the empirical ego, to which Self the empirical ego is presented. The most that any one can possibly claim in this connection in reference to this empirical ego of self-consciousness is that, if it is not the Self, at least introspection seems to tell us that it is inherently involved with the Self, and that it appears to partake of the nature of this Self; but such a claim must finally rest upon an inference, and cannot be assumed to be valid without careful study quite apart from the experience of the empirical ego as given in reflection.

If it be claimed that this Self that I thus speak of is after all nothing more than a mere concept, that it is really built up as it were out of material given in our retrospective consideration of the revivals of past experiences of the empirical ego, it suffices to reply that in the fact that such a conceptual self is held to be a concept it is acknowledged to be what we call a presentation, and that it therefore cannot be the Self the nature of which we are considering, cannot be the entity that is involved with the experience given when we appreciate the Self as receptive of the presentations within consciousness, and as reactive in relation to them. Surely this very conceptual self, being itself a given presentation, cannot be the Self to which it is presented.

And the same may be said of those conceptions of the true Self which make allowance for the fact that the every day self is of an empirical nature, and endeavor to get back of it in some way to a self of a higher nature: which build up for instance a genetic concept based upon the nature of the experienced empirical ego, as it is related to our recognition in attention of other egos, and in connection with our knowledge of the processes of development in nature. For here too we perceive that such conceptual selves are not the entities that are receptive of the presentations within consciousness, and reactive in relation to them: again we note that what we speak of thus as the self, being itself a concept, is a presentation referring to a Self which is not, and which never can be, a presentation or emphasis within the field of attention in consciousness, and can never be studied directly in reflection.

Sec. 2. Failing to grasp the nature of the Self by reference to our experience of the empirical ego in moments of self-consciousness, or by reference to the broader conception of a true self above referred to, we are not unnaturally tempted to leap to the conclusion that this true Self, which we conceive of as a somewhat to which presentations in consciousness are given, is entirely outside of and beyond consciousness: a

view which would not demand special remark were it not really implied in much of the discussion of this subject. We may perchance choose to call it a "soul substance"; but give it what name we will we are tempted to consider it as something of a nature quite diverse from consciousness as experienced; as a sort of spiritual eye which watches the incoming and outgoing stream of consciousness, much as we watch with our physical eyes the movements of the living beings around us; or as an entity which is bombarded as it were by presentations; or as a cold mass of intellectuality to which experience appeals but which is unaffected by, although at times it may affect, this experience.

But when we seriously reflect upon such notions we find that they are no more satisfactory than the crude conception which identifies the Self with the empirical ego. For we discover that we are speaking of what has in fact no meaning, —are really talking pure nonsense,—when we speak of the Self as utterly, or even very markedly, diverse from conscious experience, and yet as having some sort of extraordinarily intimate relation with it. How can it be thus related with consciousness if there is no common bond between it and consciousness? How can we speak of a presentation to the Self without implying the existence of a reciprocal relation between the two; and without implying the existence of a bond of likeness between the Self and that conscious experience which we call the presentation?

So far as I can see if one is to maintain the view that the Self is not part of our consciousness he can do so only because he follows the average man in his common assumption that in reflection we have all there is of consciousness, making this assumption merely because clear knowledge is given only in vivid states of reflection. But, as we have seen in earlier chapters, this assumption is entirely unwarranted; and in this particular practically all psychologists to day are in agreement. It is true as we have seen that only in states of reflection are

we able to recall any of the consciousness of the past, and the average man therefore carelessly comes to think that only what can be revived by him was in the consciousness of his past; he then takes a step further and identifies consciousness with what can appear as the revival of past conscious states; and without just ground he is led thus to give to consciousness the limitations which belong to revival, or even to that special form of revival which we designate as memory. Consciousness is thus identified with the field of attention, and as the Self is not of the field of attention it must under such a view be difficult to hold that it is part of consciousness.

But under our view consciousness in any moment is much broader than the mere presentations we experience, which are mere emphases within the whole noetic system; which latter is in each moment inclusive of the Self to which the presentation accrues.

If we are led to identify the Self with what we may call a monad, or a hypothetically simple entity, we find we have gained nothing. As Mr. F. H. Bradley[1] says "If we make this unit something moving parallel with the life of a man, or, rather, something not moving but literally standing in relation to his successive variety, this will not give us much help. It will be the man's Self about as much as it is his star (if he has one) which looks down from above and cares not when *he* perishes. And if the unit is brought down into the life of the person, and so in any sense suffers his fortunes, then in what sense does it remain any longer an unit? And if we will but look at the question, we are forced to this conclusion. If we knew already what we meant by the Self, and could point out its existence, then our monad might be offered as a theory to account for that Self. . . . But so long as we have no clear view as to the limits in actual fact of the Self's existence, our monad leaves us with all our old confusion and obscurity. But it further loads us with the problem of its

[1] Cf. *Appearance and Reality*, p. 86 and confer ff.

connection with these facts about which we are so ignorant. If the monad owns the whole diversity, or any selected part of the diversity which we find in the individual, then, even if you had found in this the identity of the Self, you would have to reconcile it all with the simplicity of the monad. But if the monad stands aloof, either with no character at all, or a private character apart, then it may be a fine thing in itself, but it is a mere mockery to call it the 'Self of the man.'"

In any event, whatever may be the metaphysical import or value of this or similar concepts, it is sufficiently clear that they do not relate to the Self of the moment's experience with which we are here dealing; and we are therefore not called upon in this work to enter into a discussion of the merits of the theories they involve.

Sec. 3. When we ask ourselves whether it is possible to conceive of the Self as part of the consciousness of each moment we at once see that such a view is sustained by the very fact that our experience appears in reflection as a stream flowing toward and away, as a series of presentations, as what Dr. James Ward calls a "presentation continuum." For the Self is also conceived of as a continuing entity and these notions of presentations, of a stream, seem to imply that the Self to which the presentations are given, to which and from which the stream flows, is of the same fundamental nature as that conscious experience which we describe as the "presentation continuum," or the flowing stream of consciousness; as must be the case if both the Self and the presentations to the Self in each moment are diverse parts of the moment's consciousness taken as a whole.

We find a further corroboration of this view if, in relation to the presentations which appear in the field of attention, we consider the nature of our Selves as indicated by objective signs. For although we find it impossible to study the Self introspectively in reflection, nevertheless, as we shall see more in detail in later chapters, we are able to judge of its nature

by an objective study of its reaction upon the presentations which are given to it; as is clear in the fact that we do thus study the Selves of our fellow men who surround us, and do thereupon, with practical advantage, judge of their characters, *i.e.* of the nature of their Selves.

If then we consider our Selves objectively, as we would think of the Selves of our friends, and make note also of our "presentation continua" in relation therewith, we find that with the increase of intensity of presentations, and of grade of attention, our Selves as objectively viewed appear concentrated as it were to meet the demands of reaction in certain limited directions: if this vividness of intensity and attention be increased sufficiently we become more or less idiosyncratic, no longer bearing close relation with the social world. But on the other hand if this vividness of intensity and attention be reduced, objective evidence shows us that our Selves become entities of a wider, fuller nature: indeed if this vividness be reduced sufficiently by the removal of sources of stimulation there appears in consciousness a coordinate loss of definiteness, the field of attention spreads itself out and appears to dissolve away into a something wider, until finally we reach a state of the broadest of conscious experience in which there seems to be naught but mere consciousness. Objectively viewed the Self is still there; but subjectively, presentation and Self seem to have become one and the same.

It thus appears that the Self and the presentations thereto are inextricably intertwined if we may so speak. Mr. F. H. Bradley[1] has studied this particular fact with his usual acuteness of introspection. "Let us . . . ask" he says, "if the not-Self contains anything which belongs to it exclusively. It will not be easy to discover many such elements. In the theoretical relations it is quite clear that not everything can be an object, all together and at once. At any one moment that which is in any sense before me must be limited. What are

[1] *Appearance and Reality*, ch. ix. p. 91 ff.

we to say then becomes of that remainder of the not-Self which clearly has not, even for the time, passed wholly from my mind? I do not mean those features of the environment to which I fail to attend specially, but which I still go on perceiving as something before me. I refer to the features which have not sunk below this level. These are not even a setting or a fringe to the object of my mind. They have passed lower into the general background of feeling, from which that distinct object with its indistinct setting is detached. But this means that for the time they have passed into the Self. A constant sound will afford us a very good instance. That may be made into the principal object of my mind, or it may be an accompaniment of that object more or less definite. But there is a further stage, where you cannot say that the sensation has ceased, and when yet it is no feature in what comes as the not-Self. It has become now one among the many elements of my feeling and it has passed into that Self for which the not-Self exists."

In the last sentence of this quotation Mr. Bradley records an introspective observation the importance of which is not commonly noted; viz. that our experience warrants us in saying that our presentations fade off into the Self. But what he is thus picturing as the realm into which the presentations fade is really what I have elsewhere described as the field of inattention. What we usually think of as attention is more or less vivid, more or less wide, and it has its setting in a still broader field to which we seldom apply the word attention, but which is nevertheless of the nature of the more vivid field of presentations; and this broader ill-defined field seems to fade into a still broader field of what is still consciousness. But if on the one hand it is consciousness, on the other hand it certainly cannot be said to be of the field of attention, it is part at least of an undifferentiated psychic mass which lies beyond this field of attention: viz. the *field of inattention*.

All presentations to the Self are of the field of attention.

The Self of the moment when a presentation is given however is never of the field of attention. But if the Self is part of consciousness it must then be at least within the field of inattention; and as there is no evidence that this field of inattention is broader than the Self, and none that the Self contains other elements than those which exist in this field of inattention, there seems no ground of objection to the assumption that the field of inattention and the Self are one and the same, and identical: the Self thus appearing as a part of consciousness, as a whole undifferentiated mass against which by contrast appear such parts of consciousness as are emphasized in attention.

Sec. 4. Those who have followed our study of the nature of the empirical ego will perceive, as noted again in Sec. 6 below, that it and the Self thus appear to be fundamentally of the same nature: and if this is true, and if the Self of each moment is the field of inattention, then we should expect to note the fading of the empirical ego into this field of inattention so far as it is still sufficiently marked to be in the least given presentatively. It is the recognition of the continuity of the empirical ego with the field of inattention which leads Mr. Bradley[1] to venture so positive a statement as that "there seems, however, no doubt that the inner core of *feeling*, resting mainly on what is called coenesthesia, is the foundation of the Self." In our view however the Self, while of the nature of this coenesthesia, is not such as can appear even as the most vague of presentations, not even as a mere background of "feeling" against which the non-ego appears. As Lotze says[2] "Selfhood, the essence of personality, does not depend upon any opposition that either has happened, or is happening, of the ego to a non-ego; but it consists in an immediate self-existence which constitutes the basis of the possibility of that contrast wherever it appears. Self-con-

[1] *Appearance and Reality*, p. 80 (italics mine).

[2] *Microcosmos*, bk. ix. ch. iv. sec. 5. x.

sciousness is the elucidation of this self-existence which is brought about by means of knowledge, and even this is by no means necessarily bound up with the distinction of the ego from a non-ego which is substantially opposed to it."

Sec. 5. The view as to the nature of the Self here maintained appears to me to be not very far removed from, and to be readily related with, that expressed by Prof. James[1] where he speaks of the passing thought as being the thinker. "Each pulse of cognitive consciousness, each thought," says he "dies away and is replaced by another. The other . . . knows its own predecessor, and finding it 'warm,' in the way we have described, greets it, saying 'Thou are mine and part of the same Self with me.' Each later thought knowing and including thus the thought which went before, is the final receptacle,—and appropriating them is the final owner,—of all that they contain or own."[2]

In my view this statement does not go far enough: it demands further development. The passing Thought in my view does not in itself and alone become the Thinker. Not because of its own specific nature does it become the Thinker, but in the fact of passing it becomes part and parcel of the vast field of inattention, which constitutes the Self, to which it adds its minute portion. The passing Thought, plus the vast array of psychic effects of past experience with which it connects itself, is what makes up the Self which is the Thinker;—this, and no less than this.

Sec. 6. Looking at the matter from another point of view we note that the very misconceptions of which we have spoken in Sec. 2 point to this same view as to the nature of this Self.

The fact that the Self is usually identified with the empirical ego of self-consciousness would seem to imply that it is of the same nature as the empirical ego, that perhaps the more definite empirical ego arises out of the Self,

[1] *Psychology*, vol. i. p. 342. [2] *Ibid.* p. 339.

that perhaps in a sense it is continuous with the Self. And this in fact is a fair statement of our theory as explained in Chapter III., and in Chapters XXI. and XXII. above, according to which the empirical ego is a mass of undifferentiable psychic elements sufficiently integrated to appear as a mass as a presentation to the Self, while within and in contrast with this mass appears the psychic emphasis which we speak of as the object. The empirical ego being of such a nature it evidently must be a simulacrum of the Self.[1] If it is such a simulacrum to the Self then it would follow that when it disappears as a presentation it must be absorbed into the Self of the moment.

If this is accepted as a proper view as to the relation of the empirical ego to the Self then we might expect to note that a special psychic emphasis which at one moment is given as a presentation to the Self might without essential alterations appear in another moment as part of the complex presentation of self-consciousness as an object in relation to the empirical ego, and this is evidently the case, as we have noted in the chapters above mentioned.

Again, the very fact that the Self is often thought of as outside of consciousness, in connection with the recognition

[1] One special fact may be well worth noting in this connection. When a "suggestion" to do some given thing in the future is made to a patient in the hypnotic trance, he often shows by his words that he is self-conscious in the trance state;—that he has in mind under the abnormal conditions an empirical ego which he thinks of as presently to perform a certain act, in accordance with the suggestion given to him.

When, being awakened from the trance, he performs this suggested act he in most cases merely does so without being in any measure self-conscious. He cannot remember that the act was suggested, he will say that he does not know why he performed it; all that he can tell of it is that, the appropriate signal having been given, he (that is his Self as viewed objectively) acted as he did; the suggestion originally given in the field of attention of the hypnotic state, and acquiesced in then as a future act of the empirical ego, appears in his normal life as arising from within the field of inattention, as coming from the man's very innermost Self.

of the similarity of the Self and the empirical ego, would seem to imply that the relation between presentations and the Self is appreciated as being of the same nature as the relation of the object and the empirical ego. For if in states of self-consciousness the object is thought of by the average man as entirely exclusive of the empirical ego, so the non-presentable Self would naturally be thought of as exclusive of that emphatic part of consciousness which the common man and psychologist alike all too readily assume to be the whole of the consciousness of any special moment.

Sec. 7. In connection with the movement of attention we find further support for this view. For when we are thoroughly self-conscious we note in the field of attention an empirical ego, and a series of objects related to this empirical ego. And when we are entirely lacking in self-consciousness we note in the field of attention merely a series of what we call presentations which are of the same nature as the objects in states of self-consciousness. The significant fact here to be noted is that the movement of attention as observed in the series of objects related to the empirical ego (and exclusive of this empirical ego) is appreciated as of the same nature as the movement of attention as observed in the series of presentations where no empirical ego is part of the field of attention: this being evidenced in the fact that in our consideration of the contents of, and of the movements of, attention we pass from the self-conscious to the non-self-conscious fields without the least hesitation, as though they were one and the same in kind and nature; as indeed under our hypothesis they must be.

But this is especially significant in connection with the fact that the object in states of self-consciousness is recognized to be necessarily affected by the nature of the empirical ego, that it is what it is because of the existence also in attention of the empirical ego, the empirical ego and its object being both partial presentations and both of the same general nature and

reciprocally reactive. If then the presentation to the Self when we are not self-conscious is of the same nature as the self-conscious object contrasted with the empirical ego, surely it would appear that the presentation to the Self can only be what it is because it is acted upon, and itself reacts upon, a somewhat which is in general of the same fundamental nature with itself, and which corresponds in its general nature with that of the empirical ego.

It would seem then to follow (1st) that the Self must be of the same general nature as the presentation to the Self, as the empirical ego is of the same general nature as its object; and (2nd) that the relation existing between the Self and its presentation must be fundamentally the same as that existing in our self-conscious states between the empirical ego and its object. For were there no Self to which the presentation is given, and were this Self not of the same fundamental nature as the empirical ego, then surely the presentation of non-conscious states would not appear to be of the same nature as the object related to and affected by the empirical ego in self-conscious states.

Sec. 8. Assuming then that the Self of each moment is the field of inattention of that moment, and that it is fundamentally of the same general nature as the field of attention; and that the empirical ego within this field of attention is a simulacrum of this Self, we must seek to determine what the nature of the Self must be by reference to what the nature of the empirical ego, as studied in reflection, actually is.

In general we may say, as we have seen, that the empirical ego is the psychic coincident of an emphasized vast mass of neural activities which are so fully coordinated that the elemental activities do not distinctly separate themselves away from the general pulse of activities of the mass. Still more thoroughly coordinated then must be the neural activities which are the coincidents of that vast field of inattention, —the Self. This thorough coordination of the countless

elements of this vast neural mass can only be accounted for as the result through inheritance of the experience of the ages through which the man and all his ancestors have passed. This experience has led to the coordination of which we speak in directions which have in the past served the purposes of Nature in the development of all the man's progenitors. The Self is thus fundamentally of the nature of the "instinct experiences": it speaks of the experience of all the vast array of ancestors from whom the man is descended, and its voice, as indicated in what we call the man's character, should be looked upon as telling of and in favor of this experience of countless ages. The Self thus appears as the conservative part of consciousness.

CHAPTER XXIV

THE RELATION BETWEEN THE EMPIRICAL EGO AND ITS OBJECTS AS COMPARED WITH THE RELATION BETWEEN THE SELF AND ITS PRESENTATIONS

I

Sec. 1. WHEN we consider the nature of the nervous system, and our usual assumption that all the activities within it are fundamentally of the same nature, we perceive in the first place that where a complex neururgic emphasis occurs, the minor neururgic emphases within this complex must display a reciprocal efficiency: and in the second place that an emphasis of activity in any part must affect the activities of the system in general; and that the nature of the activities of the system as a whole must affect the nature of the emphatic activity. If then a thoroughgoing neururgic and noetic correspondence exists we should expect to note in the first place that when a complex noetic emphasis or presentation occurs the minor emphases or minor presentations within the complex presentation must display a reciprocal efficiency: and in the second place that each noetic emphasis must affect the nature of the noetic system in general; and that the nature of the noetic system as a whole must affect the nature of the noetic emphasis.

Sec. 2. Taking into consideration in the first place the reciprocal efficiency between minor presentations within a presentational complex, we note that the presentations which

from moment to moment appear marked in attention, are dependent for their emphasis upon the nature of the discernible whole noetic pattern to which they belong: the "object of attention" is not isolated, but is part of a minor psychic system of more or less complexity the existence of which is more or less clearly appreciated. And on the other hand this noetic pattern shifts and changes as the psychic elements which appear as presentations themselves shift and change.

If, refreshed after the night's rest, I enter my study at my morning work hour, the papers and books on my writing table, and the comfortable divan, are both looked at, and both make distinct observable impressions; and the same thing happens when I enter my study at the close of a day of arduous work. But in the first case when I am fresh the impression of the papers and books, and in the second case when I am weary that of the divan etc., becomes important in relation to all else in the field of attention: in other words the nature of the whole complex noetic emphasis, different in each of the two cases, evidently acts upon the special presentations referred to, increasing or thwarting their development as the case may be. On the other hand the presentations determined by the impressions of the books and of the divan respectively act upon the whole of the presentative field to alter the form of all the emphases within the noetic pattern, as is clear in the fact that they lead to totally different reactions in the two cases.

We have above considered complex presentations of an impressional type; but it is clear that the elements of thought complexes react reciprocally also. If the whole presentation in attention consists of some special thought complex, say the "theory of organic development"; and if some fact in nature becomes noticeably correlated with the thought complex; then that aspect of this fact in nature which relates to the theory of development becomes emphatic, and reciprocally the "theory of development" is emphasized just so far as it

seems to be corroborated or weakened by this fact in nature. The noetic emphases which appear from time to time in our life of thought are dependent upon the existence, within consciousness as a whole, of recognizable apperceptive systems, to take Stout's term; and these apperceptive systems are themselves modified by the influence of the marked noetic emphases which they assimilate.

The case is similar where complex impulsive states occupy the field of attention. If the benevolent impulse fills attention when some evidently worthless tipsy tramp asks me for money, my benevolent impulse on the one hand tends to make me overlook the evil I may do him in giving him money to be used in obtaining drink, and to exaggerate beyond measure the relief of his misery which my money may bring to him, this resulting in the emphasis of the tendency to give. But on the other hand the emphasis of the tendency to give modifies sensibly the whole nature of my complex benevolent impulse of the moment, making me distinctly "soft-hearted" as the thought of giving is emphasized.

Sec. 3. We note thus that a reciprocal efficiency is observed between the diverse partial presentations within a presentative complex. If then we have in the state of self-consciousness a complex presentation of double emphasis in which both the empirical ego and its object are clear partial presentations, then in states of self-consciousness we should be able to note the existence of a reciprocal efficiency between the empirical ego and its object.

Again if it is true that the empirical ego is a simulacrum of the Self, and that the relation of the empirical ego to its objects is of a like nature with the relation of the Self to its presentations, then we might be led to hope to find evidence of a reciprocal efficiency existing between the Self and its presentations.

In our study of the reciprocal efficiency of the empirical ego and its objects we may hope for fairly clear data, for both

are partial presentations. Even here however we must be prepared to meet with introspective difficulties for the reason that of the two partial presentations under consideration the object is alone analysable with any degree of clearness, while the empirical ego must always appear as a relatively indistinct undifferentiable mass.

But when we turn to the study of the reciprocal efficiency of the Self and its presentations we face much more formidable difficulties. For as we have so often said the Self cannot be directly studied in reflection, and the reader who follows me in upholding the thesis here maintained must not hope to find evidence of a crucial character; he must be content with mere corroboration which can only appear effective as it is cumulative, and must feel satisfied if in the end of our examination he discovers no contradictions in introspective experience.

The action of the Self upon the presentations, and the modifications of the noetic forms resulting therefrom, we may hope to observe in some measure introspectively inasmuch as the presentations as thus modified are given in reflection. Nevertheless even here we must face the fact that, as we cannot observe the Self in reflection and therefore cannot note any definite sense of its activity if such occur, we can offer no positive proof that it is the Self which produces the observed modifications in the presentations under consideration: we must content ourselves with such indirect evidence as is found if we observe that the presentations are in a general way modified as we should expect them to be modified if the Self is of the nature suggested by our hypothesis.

Evidence of the action of presentations upon the Self and of the modifications of the Self resulting therefrom, if such modifications occur, can only be gained even more indirectly. For so long as these modifications are of such slight moment that they do not involve any indirectly resultant presentation to the Self they cannot be observed introspectively at all; and when such modifications are observable they are no longer

of the Self, but appear as themselves modifications of the field of attention of the moment.

We are greatly aided however by the observation that in every day life we do not hesitate to judge of the nature of other men's Selves in judging of their characters. And when we consider this habit of ours we note that we judge of the nature of other men's Selves by observation of the reaction of these Selves upon those presentations which we judge from our own experience must be in the individuals' fields of attention. And in truth we may and do thus in retrospect study objectively the nature of our own characters or Selves.

This judgment as to the nature of our neighbour's character turns upon the fact that we interpret his expressions which we are able to observe. Some of these expressions have to do with what we know to be presentations within his consciousness; but a very large proportion of them have to do with what are very slightly emphatic parts of his consciousness, and a still larger proportion with what are generally spoken of as "unconscious reflexes."[1] Evidently the "character" which we thus judge is as broad as the whole of the man's consciousness, and therefore its psychic correspondent is inclusive of that part of consciousness which we call his Self; and it is clear that when we speak of a man's character, while we refer to some extent perhaps to the emphases within the man's field of attention, we refer very much more to the nature of his Self: that is, we assume that a man's character on its psychic side includes as its most important constituent the man's Self. That we are justified in this manner of thought would not be disputed by the mass of men, and least of all by those who would agree with the positions thus far taken in this work, which present ample justification for

[1] It is very significant in relation to our general view that in judging of his fellow's character by the interpretation of his expressions, the common man does not draw any line of exclusion of the activities which he usually speaks of as unconscious.

upholding such a view: but to account for the common assumption that we have objective means of judging of the nature of other men's Selves would be no easy task for one who does not agree that a man's character as objectively viewed is the whole of his consciousness, and that this consciousness is much broader than the mere emphases in his field of attention, and that the vastly broader part is his field of inattention, *i.e.* his Self.

We may turn then to a study of the reciprocal efficiency of the empirical ego and its objects as observable in reflection; and may compare it with the action of the Self upon its presentations as these latter are observable in reflection, and with the action of presentations upon the nature of the Self as this is judged objectively.

II. The Reciprocal Efficiency of the Empirical Ego and its Objects, and of the Self and its Presentations

A. The Efficiency of Objects in Relation to the Empirical Ego

Sec. 4. Our thesis implies in the first place that the very existence of an object in relation to the empirical ego in a well defined state of self-consciousness must result in a modification of the nature of the empirical ego, and the reader will surely agree that there is no lack of evidence of such changes of empirical egohood under such conditions.

As I am now writing the most marked emphases within my consciousness are of a visual sensational type. One who watches me would say that the changes of light on my table affect me, but that the varying sounds in the street do not affect me to any noticeable degree: so far as I am self-conscious my empirical ego appears as that of the quiet writer. But suddenly I start up and go to the window with the remark did you hear that "clap of thunder." The loud noise has

changed my empirical ego as I describe it. I am now very susceptible to sound impressions and careless of light impressions. With the full self-consciousness of a very active personality I am listening to the sounds in the street, and asking my friend whether I could have been mistaken and could have misinterpreted some other sound.

It is equally clear that thought trains which are emphatic in attention as objects contrasted with the empirical ego react upon and modify the nature of the empirical ego. Let us suppose that I read a series of arguments in relation to the nature of light; and that having been taught in my college days that the undulatory theory of light is correct, I become convinced by the newer arguments that late discoveries tend to suggest the validity of some modified form of the older corpuscular theory. If perchance I find myself able to say at the moment that *I believe* in the validity of this modified corpuscular theory I can mean nothing more nor less than that the series of arguments have changed the very nature of my empirical ego. The empirical ego that to-day in believing holds the corpuscular theory to be real cannot be in any exact sense the same empirical ego that believed yesterday in the undulatory theory, even if it be contended that many unmodified elements remain common to both. And if this is true it seems clear that the objects related to the empirical ego have acted upon it to alter it while I have been concerned with the newer arguments.

That impulses which are emphasized in attention as objects related to the empirical ego react upon and modify the empirical ego is equally clear. For many years, led at the start by strong benevolent impulses, I worked on investigating committees of a "Charity Organization Society," and in the end I found myself in self-conscious reflection really becoming a "hard-hearted" person. On the other hand my experience showed me that the man who spends his life as a professional almoner developes a change in his empirical ego,

becoming distinctly "soft-hearted" and often unable to restrain himself from appeals of the unworthy if they are made with sufficient show of woe.

a. The Efficiency of Presentations in Relation to the Self

Sec. 5. In the preceding section we have illustrated the changes in the empirical ego produced by differences in the objects contrasted with it where one is fully self-conscious. But it seems very clear that very similar changes in the character of the man—*i.e.* of the man's Self, occur when he is utterly lacking in self-consciousness. As I watch my friend writing very rapidly, aiming to put into words the vivid thought which is interesting him, I know that he is altogether without self-consciousness, that his field of attention consists mainly of the partial presentations due to the visual forms of the page before him and to the muscular sensations due to writing, and especially of the partial presentation which we call the complex thought which demands interpretation.

The crash of thunder may awaken him to self-consciousness as in our example in the previous section, but on the other hand it may not. We may see him quite "absent-mindedly" rise from the table, step to the open window and close it, and then come back to his writing table; and when he acts thus we know that he, while without any self-consciousness, is vividly impressed no longer by visual but by aural impressions and their resultants in muscular reactions, as well as by the still persistent complex thought which demands interpretation. But in this moment his characteristics have been much altered, the whole neururgic and corresponding noetic patterns of the man must have changed; and this means a change at the moment in the nature of the non-presentable Self, the change being clearly due to the alterations in the nature of the presentations which have been given in the field of attention.

Or we may take an example where the change in the man's

Self is less ephemeral. The news of a falling market with danger of business disturbances is likely to make the previously cheerful banker a man of depressed and anxious spirit, unable to appreciate a good joke, silent at home, unable to force himself to enjoy his every day life in social relations: and this quite apart from any self-consciousness. A rising market and indications of the full success of enterprises in which he is interested will on the other hand make the man quite another creature, he will be gay and joyful, anxious to entertain his friends, and fond of the play of wit. His very Self is altered by the force of the diverse presentations given to him.

If we place a man in circumstances where his thoughts are given persistently to special considerations we are able finally to observe even more permanent changes of his Self. The adulation of the multitude which comes to the successful artist, or to the clergyman, or to the political leader, is very wont to "turn his head" as we all know. He becomes content to be dogmatic, unreceptive of criticism or suggestion; he loses the modesty of his earlier nature, appears to us dictatorial, "hard to get along with," and altogether becomes a changed character, a new and diverse Self.

It is to be recalled here that the Self, under our view, is much more thoroughly coordinated, so to speak, than the empirical ego; it is a vastly broader and more fully related noetic system than that which constitutes the latter. And for this reason we should expect to note that changes of empirical egohood are more easily made by the influence of its objects, than changes in the Self by its presentations: and this we discover to be the case. A man will listen to a cogent argument in opposition to the political views he has long held, and being aroused to self-consciousness the argument which is objective in relation to his empirical ego may change the latter; he may find himself saying "*I* see the force of your argument. *I* have been wrong all these years." But

when the day of election comes we are likely to find him, with no self-consciousness, hastening to cast his vote with the political party with which his affiliations have always been close. His Self has not been altered materially by the forces which were potent to change the empirical ego of one of his self-conscious states. Long years, and persistent reiterations of special presentations, are required to alter permanently and fundamentally the nature of the Self, in connection with changes in the nature of the presentations that are given; although less important changes in it do occur from day to day, and from moment to moment.

B. The Efficiency of the Empirical Ego in Relation to its Objects

Sec. 6. That in fully developed states of self-consciousness the empirical ego appears as efficient in relation to its objects most men will without doubt acknowledge at once and without hesitation. We have here before us the important problem as to the nature of conation which we have touched upon already but which we must here consider with greater care.

In the first place it is necessary to note again the fact that what at one time is the object related to the empirical ego of self-consciousness may be and often is the whole of the presentation to the non-presentable Self. A sensation for example which at one time is thought of as given to me, at another time may stand alone as a presentation when we are not in the least self-conscious. The empirical ego thus as it were comes out of the Self, and again is absorbed into it. The sense of the efficiency of the empirical ego thus fades off into a vague sense of efficiency attributable in later reflection to the Self. But it seems certain that whenever we deal with clear states of self-consciousness we are dealing with an empirical ego, and not with the Self; and thus in

all clear introspective appreciation of the action of an efficient "self" we refer to the empirical ego, and not to the true Self.

Sec. 7. Conation broadly speaking refers to every exemplification of the sense of the efficiency within the broad psychic system: and of the fullness of this conative aspect within consciousness we shall have ample evidence as we proceed. As we have already said, each psychic element has in it what we may describe as a "movement beyond itself"; and this it is that we call conation. At times this conation is not emphatic enough to be appreciated as such; but at other times it does become emphatic enough to be appreciated in such states as expectation, desire, impulse, resolve, consent; leading up finally to the volitional act, or choice.

It is not always however that this sense of conation is distinctly related to the empirical ego, and it may be experienced where we can scarcely be said to be explicitly self-conscious. These experiences we may pass over however, for we are here concerned to consider the fact that this sense of conative efficiency gains a special character when it is clearly bound up with the empirical ego of self-consciousness.

It is to be noted especially that we do not refer just here to the act of will, or choice; that we shall consider in the next section. Psychological students all too often fall into error in that they fail to distinguish between conation in general, and the will act; they thus look upon the latter as typical of conation in general, and are wont to treat of what they call *will* as if it were a special "faculty" of the human mind, speaking of it almost as though it were an entity apart from consciousness, and which acts from without upon consciousness.[1] What we are considering just here is self-

[1] Mr. F. H. Bradley (*Mind*, 44 N.S. p. 438) says that there is no will except in volition. He would thus appear to use "will" as identical with "the will act." In common language the word will is frequently used as the equivalent of what I here call conation.

conscious conative action in general. This becomes especially significant in all conscious states in which an efficiency in relation to the object is recognizedly bound up with the empirical ego. It is then appreciated as an efficiency which changes the object by the very process of the assimilation and enforcement of compatibles, and the rejection and weakening of incompatibles.

Attention as we have seen is always selective. But whenever this selection is appreciated in our self-conscious states the presented empirical ego always appears as the efficient agent in the selective act. The nature of the empirical ego of the moment determines the selective emphasis of sounds at one time, of visual sensations at others, etc., all of which are interpreted in relation to the needs of the moment. All will agree that the same selective emphasis by the empirical ego is noted in the realm of instinct-experience and impulse; and that it is distinguished also in the realm of thought is clear upon reflection, for as Prof. Royce[1] well says: "the essence of reasoning, as of the whole thinking process, is that I am not merely concerned with the way in which images float before me, but with *my consciousness of what I am doing with these images or with the objects that the images suggest.*"

This leads us to note one point already referred to which is perhaps not self-evident; viz. that the *I do* and *I think* processes are fundamentally of the same nature.[2] If they

[1] *Outlines of Psychology*, p. 294. In the immediate context Prof. Royce places mere assimilation in opposition to this action of the empirical ego. But in my view this action of the empirical ego is a special instance of assimilation.

[2] It appears to me fallacious to draw the sharp distinctions which Stout does between voluntary and impulsive action, and between deliberation and impulsive tendencies (Confer his *Manual of Psychology*, p. 583. Compare pp. 590-591, which appears in a measure to contradict his previous statement). The difference seems to me to be one of degree only. Conative efficiency (what most people call "will") is in all cases apparent. The difference is one of emphasis of this efficiency in connection with what we may call the violence of the will act to be considered later.

seem dissimilar it is merely because the objects upon which the empirical ego acts themselves differ in their nature, in the one case being ideational, and in the other being impulsive; the process in each case remaining the same. The *I do* process is more common than the *I think* process in the experience of the ordinary man who does not stop to weigh motives or to relate thoughts; and in fact this is true even in the average experience of the contemplative man. But the contemplative man often finds that the action of his empirical ego upon the field of impulse is of less import than its action upon the field of thought: the empirical ego in his case often emphasizes some thought element, which is forthwith expressed in action by what many would describe as a purely mechanical process, without the appearance of any impulse in attention. If the action of such a man is arrested however the impulse process appears in attention as it does for the man of uncontemplative habit, and as it does for himself in his uncontemplative moods. In fact the *I do* and the *I think* processes are both reducible to the emphasis by the empirical ego of some special objectified presentation, which being enforced works itself out at times in an expression of conviction, and at other times in an expression of bodily activity.

Sec. 8. We need not dwell longer however upon this particular aspect of the relation of conation to the empirical ego, but may turn to the consideration of an important special development of this conative tendency, which appears to us thus important because it is very much emphasized, and is always bound up very clearly in attention with the experienced efficiency of the empirical ego; I refer to what we call the will act, or voluntary choice.

We are all too apt to think of this choice as the act of an individual entity "the will," which is spoken of almost as though it were independent of consciousness. It may be well then to remind ourselves that, as Locke taught us, "the

Will, in truth, signifies nothing but a power or ability to prefer or choose." "If it be reasonable to suppose and talk of faculties as distinct beings that can act (as we do when we say the will orders . . .) it is fit that we should make a speaking faculty, and a walking faculty, and a dancing faculty by which these actions are produced, which are but several modes of motion; as well as we make the will and understanding to be faculties by which the actions of choosing and perceiving are produced, which are but several modes of thinking: and we may as properly say that it is the singing faculty sings, and the dancing faculty dances, as that the will chooses. . . ."[1]

It is to be recalled here especially that in cases of voluntary choice it is the empirical ego which is apprehended as efficient, and not the Self: for this Self is not given in attention, but is that to which the whole state of self-consciousness appears as a presentation of dual emphasis.

The act of will, so called, appears after a condition of inhibition due to the existence of two opposed and incompatible objective presentations each of which tends to develope. These objects may be in the realm of impulses to act, or in purely ideational realms; in both cases the process is the same. The mutual inhibition to the development of the two incompatibles carries with it an emphasis in attention of the ideas anticipatory of the acts whether these be impulsive or ideational.

The act of will appears when under such conditions of inhibition there arises from within the empirical ego an efficiency, appreciated as such, which enforces one of the two incompatibles, and minimizes the other; which welcomes one, and rejects the other.

That the essence of this *act of will* is the reaction of the empirical ego upon its object is of course perfectly clear. "There is," says Shadworth Hodgson[2] "a class of actions,

[1] *Human Understanding*, book ii. chap. xxi. 17.

[2] *Mind*, lxii. p. 177.

namely volitions and deliberations ending in choice, which cannot be disassociated from any positive idea which we can form of ourselves." And it is this "positive idea of ourself," which we have agreed to call the empirical ego.

Mr. F. H. Bradley[1] has described this experience very accurately as follows:—"Confining ourselves then to conation where it exists at its proper level,[2] we discover there in any case some inseparable characters. These essential features are the aspect of a 'not-myself,' and of a 'myself' hindered by this, together with an idea with which the 'myself' feels itself one. And all these aspects must be experienced at once if conation is to exist." Passing over other points in this quotation, we may note here merely the introspective experience described as the "idea of a change containing the removal of the hindrance, an idea with which the 'myself' *feels itself one*." The "myself," *i.e.* the empirical ego, emphasizes this idea which breaks the deadlock of obstructed impulses, or contradictory concepts,—which "removes the hindrance" as Mr. Bradley puts it;—and this because it is of the same fundamental nature as that element of the object which it thus emphasizes; *i.e.* the element emphasized is "an idea with which the 'myself' *feels itself one*."

So constant indeed is our recognition of the oneness of the empirical ego in the will act with the emphasized element in its object that our very cognition of the empirical ego is to a great extent bound up with our cognition of conative action. As Shadworth Hodgson well says[3] "our perception of ourselves as agents . . . takes place in and through complex acts of volition. These are the acts in which we trace

[1] *Mind*, N.S. 40, p. 438.

[2] I have already noted in the footnote to Sec. 7, and in a previous chapter, that Mr. Bradley would apparently have us limit conation to the distinct act of choice. In this, if I understand him correctly, I cannot follow him.

[3] *Metaphysic of Experience*, iii. p. 164.

the union of the subject and its consciousness"; or as I should say, the union of the empirical ego with its object.

In this connection it may be noted that this introspective recognition of the sameness of nature of the empirical ego, and of the part of its object which is emphasized in the act of will, which I with Mr. Bradley confidently ask the reader to test in his own experience, is a fact which is distinctly corroborative of the general view here maintained that all parts of consciousness are fundamentally of the same nature.

Sec. 9. We do not find any relation of "feeling" to objectiveness similar to that found in the voluntary act where the empirical ego is always explicit: and this we should expect would be the case if "feeling" is of the nature attributed to it,—if it is the empirical ego not yet explicit: for such relation to objectiveness would imply explicitness in the presented "feeling" which would therefore be transformed into the empirical ego, and would no longer be recognized as "feeling."

On the other hand, as the conative relation of the empirical ego to its objects is clear, we should expect to find a general acknowledgment of the inexplicit conative nature of "feeling" in relation to objective presentations. That the existence of this relation is very generally acknowledged I think will be granted; it appears especially clear when we consider the relation of "feeling" to attention and to belief to which we shall refer later.

β. The Efficiency of the Self in Relation to its Presentations

Sec. 10. We may now ask whether evidence is discoverable indicating that as the empirical ego is efficient in modifying the nature of its objects, so the Self is efficient in modifying the nature of the presentations to the Self.

We have just seen how clear is the recognition of the empirical ego as modifying the nature of its objects. And

when we study our neighbors, when we are reasonably sure that they are thoroughly lacking in the experience of the empirical ego in self-consciousness, and note their statements which indicate the nature of their fields of attention, then we as clearly note the action of the Self in modifying the presentations which accrue to it.

I listened lately to a vigorous friendly argument between a well known professor of Sociology, and an eminent "corporation lawyer," concerning the responsibility of the Directors of a certain railway for the fatalities attending a collision. The same facts were presented to both, in other words the presentations stimulating the flow of thought were practically the same for both, both were familiar with all the conditions, both were apparently devoid of self-consciousness. But the Selves to which accrued these presentations of approximately the same nature were diverse; and the complex elements of these practically identical presentations were most diversely emphasized by their diverse Selves. The lawyer unhesitatingly emphasized the elements of the discussion which tended to exonerate the Directors of the company; the professor with as little hesitation emphasized all the elements which related to the welfare of society at large, and to the interests of the masses rather than of the corporation which he claimed existed merely to serve society.

In like manner the same impulse complexes if aroused, where no self-consciousness is involved, in two men of diverse characters or in the same individual under diverse conditions result in very diverse reactions. The miser emphasizes the impulse to protect his property, dwelling on the fact that the poor man before him is merely one of many. The benevolent man, appealed to by the same poor man, emphasizes the impulse to help him, even at the cost of his own discomfort or loss. The same individual in like manner may act the miser's part on one day when the form of his Self is determined by the fact that he has been discouraged by a fall in

the price of stocks; or may act the part of the benevolent man on another day when his Self is diverse because he has heard from his banker of some successful sale of securities which he had thought to be of doubtful value. And all this may go on without the least recognition of the empirical ego in self-consciousness, when however we witness objectively the expression of the action of the Self upon its presentations.

CHAPTER XXV

THE RELATION OF EFFICIENCY BETWEEN THE EMPIRICAL EGO AND THE SELF, AND THE GENERAL QUALITIES OF PRESENTATIONS

We are now prepared to gather together certain important considerations which have been studied briefly from chapter to chapter in Part II. of Book I. If our hypothesis as to the nature of the empirical ego and of the Self is correct we should be able to verify it in connection with the observation of their influence upon the general qualities which are found in connection with all presentations, and with the reciprocal influence upon the empirical ego, and upon the Self, of these general qualities as developed in connection with presentations.

A. The Empirical Ego and the Self as Related with Manifoldness and Intensity

I. The Effect upon the Empirical Ego and the Self

Sec. 1. We have seen in Book II. that all presentations display more or less of manifoldness, and more or less of intensity; the emphasis of the one quality being inversely related to the emphasis of the other. A high degree of manifoldness in the object contrasted with the empirical ego implies widespread activities of about the same effectiveness

in closely connected neural elements; while a high degree of intensity implies a narrow range of such effective neural activities. It would appear that the former condition would be more likely than the latter to arouse to heightened activity a broad undifferentiable systemic neururgic mass such as corresponds, under our view, with the experienced empirical ego. We should therefore expect to find that a presentation in which manifoldness is marked is more likely, and a very intense presentation less likely, to appear in connection with the appearance of the empirical ego as a self-conscious presentation to the Self. The very intense presentation would be more likely to stand alone, *i.e.* without any empirical ego.

This is surely a matter of every day experience. I do not usually have in mind the empirical ego as affected by a vivid light, or by a piercing noise, or by a very sharp pain: the presentations consist of the light, the sound, the pain, almost in isolation: only after the presentations have passed or have developed, and have aroused other presentations of a broader manifoldness, (*e.g.* thoughts of the head light of the locomotive bearing down on me, of the whistle of the fire engine in the street, of the burning ash that has fallen from my cigar upon my hand,) do I note any experience of my empirical ego as contrasted with the objectified presentation. On the other hand it is the broader presentations which are most distinctly found to involve the appearance in consciousness of the empirical ego: for instance, the percepts of "objects in the outer world," which are of enormous complexity and of marked manifoldness; those objects which are bound together in that immensely complex system which we call our social life; these are the presentations which most readily compel the consideration in attention of the empirical ego in contrast with the related objects which appear in contrast with the empirical ego.

What we have said above may be restated in another form,

viz. that while all objects in self-conscious states must modify the nature of the empirical ego, nevertheless a notably manifold object must produce more distinct effects upon the nature of the empirical ego than one in which manifoldness is not marked, while intensity is.

Sec. 2. If our conception of the nature of "feeling" is correct we should expect to find that narrow, intense, vivid, presentations are less likely to arouse "feeling," than broader presentations which involve an emphasis of manifoldness. The reader will I think agree that this expectation is met in our experience if he refers to the examples given in the previous section, and notes that "feeling" is aroused by the same general types of presentations which lead to the appreciation of the empirical ego.

Sec. 3. If what we have said in Sec. 1 is true, and if the empirical ego is a simulacrum of the Self, it should be possible to make similar observations in relation to the Self: viz. that while all presentations must modify the nature of the Self nevertheless a presentation which has marked manifoldness is more likely to produce effects upon the nature of the Self which will be observable objectively, than one in which manifoldness is not, but intensity is, marked.

Objective observation shows us that narrow, unmanifold, presentations, of which vivid sensations are the best examples, produce narrow effects upon the character of the man to whom they are given. These effects are sometimes of very distinctive form, but in the main they do not seem to involve the whole system, being in fact, in a vast proportion of cases, of what we call the reflex type: *i.e.* they affect limited minor noetic systems rather than the complex system of noetic systems as a whole. On the other hand the broader, fuller, more manifold, presentations of which the best examples are what we call our thoughts,—considerations of objects in the

outer world, especially in their social relations,—very distinctly affect the nature of the Self as it is judged objectively: they change the mood of the man, they alter the very nature of his character from moment to moment, and if they persist for long, or are frequently recurrent, they permanently alter the form of the Self.

The vivid flash of lightning which has intensity but lacks manifoldness may make a man wince, or it may affect him somewhat more broadly and lead to an emotional state of fear, but without marked alteration of his general attitude towards life. But serious consideration of the objects around him in their multitudinous relations, which involves presentations of a high degree of manifoldness, invariably produces objective evidence of a real change in his Self.

II. The Effect of the Empirical Ego and of the Self

Sec. 4. If what we have said above is true we should expect to note that while the empirical ego must modify its objects in all cases this modification will be more noticeable where the object is markedly manifold than where it is markedly intense: the broad empirical ego must find more points of attachment as it were in the object in the former case than in the latter. If this is true we should also note similar characteristics in relation to the Self. And these expectations are met in our experience.

In our self-conscious states we do not commonly appreciate that we ourselves are concerned to alter the nature of our vivid sensations while we do concern ourselves with the manipulation of the presentations of thought which are notably manifold.

And the same without question is true of "feeling" which warps the realm of thought but is not appreciated as capable of modification of intense sensational experiences.

So of the Self. The character a man displays makes little

difference in his discriminative modification of presentations of a narrow, intense type: we assume that the vivid sensations remain about the same for each of us. But the man's special character does make much difference in the form of development of the broader and manifold presentations of thought: the example of the lawyer and of the sociologist in facing the same problem given in Chapter XXIV., Sec. 10, suffices to bring this matter before us clearly. Such instances are of every day occurrence, and go to show that in connection with a high degree of the manifoldness of presentations the opportunity is given to the Self to select in accord with its inherent nature, and to modify the presentations which are given, as would not otherwise be the case.

III. The Empirical Ego and the Self in Relation to Attention

Sec. 5. Attention, as we have seen in earlier chapters, is the appreciated relation of a given intensity to the manifoldness of the rest of the noetic pattern of the moment. The persistence of a state of attention is due to a persistence of a given intensity, and we should be led to expect to note that attention alters the whole noetic pattern and with it the nature of the Self, and of the empirical ego if it happens to be explicit.

Examples here are not needed, for in the instances given above of the modification of the empirical ego by its objects, and of the Self by its presentations, where we have referred to the objects and to the presentations, we have dealt with presentations which are almost always marked in attention.

Sec. 6. We may turn then to the consideration of the efficiency of the mass of the noetic system upon attention. Here we are dealing with the efficiency of the Self in relation to attention to given presentations; and, so far as this action is represented in self-consciousness, with the efficiency of the empirical ego in relation to attention to given objects.

If we consider first the relation of the empirical ego to its objects we note that if the empirical ego is of the nature claimed for it then its efficiency in relation to its object should be evidenced by the emphasis of certain elements in the object which are assimilable by it. This emphasis would have to do with changes in the relation of intensities within the whole mass of the object, and would therefore involve changes in the field of attention; and the very action of the empirical ego upon its object thus considered may as we have seen be equally well described as the influence of this empirical ego upon attention.

It is not worth while at this juncture to stop to illustrate this point, for in the instances given in the preceding chapter of the efficiency of the empirical ego upon its objects we have dealt with cases where these objects have been held in attention by the empirical ego.

Sec. 7. But if the relation of the empirical ego to its object in self-consciousness is representive of the relation of the Self to its presentation, then we should also expect to note distinctly certain changes in the nature of the field of attention as the result of the action of the Self. Here again we scarcely need to illustrate our point, for in the instances given above of the efficiency of the Self upon the presentations to the Self we have dealt with cases where the presentations are held in attention.

If in states of self-consciousness we study the objects related to the empirical ego which are in attention we discover them modified by the empirical ego through the emphasis of certain elements and the minimizing of certain other elements.

So when the field of attention is filled with successions of presentations which involve no recognition of an empirical ego, then in reflecting upon these non-self-conscious states we note that here also the presentations are modified by the emphasis of certain elements and the minimizing of certain other elements, and in a manner which cannot be accounted

for in any way by the nature of the presentations themselves. This modification comes from the Self.

Sec. 8. There are times when the stimuli from the outer world and their resultants are so forceful that they appear to be alone powerful in determining the form of the neururgic pattern which corresponds with the noetic pattern of the moment the marked configuration of which is the field of attention. But it is evident that this can never be actually the case. As the unemphatic neururgic mass always has its part in determining the form of the neururgic pattern of any given moment, so the Self must always have its part in determining the form of the noetic pattern of the moment. As the empirical ego acts upon its object in what we experience as voluntary attention, so in like manner does the Self in a more fundamental manner select, and exhibit conation or "will." But such action of the Self is not itself experienced as a presentation; it can be known only by its effect upon the man's modes of expression: for it is the empirical ego and not the Self that is given in the will-act of explicitly voluntary attention. It is true that only by objective observation can we note the action of the Self to be similar to that which appears in such voluntary action as can be experienced in our self-conscious states; but in such objective observation we see the Self acting upon its presentations exactly as we know by experience that the empirical ego acts upon its objects in volition. Subjectively all that we are able to note is a sense of the unity of the "rest of consciousness," *i.e.* the Self, with the presentation as modified. And we realize that the presentations which fill the field of attention are modified from no cause that is inherent in them: which is made clear in the fact that when in retrospect we consider such occurrences we are tempted at times to look upon the modification as due to a mysterious influence from without ourselves (our empirical egos); we are led to claim that we have an inspiration as we say; and because the recipient cannot

experience in attention the source of this "inspiration," as it comes from the non-presentable Self, prophets have often ascribed the result to some mysterious act of the Deity.

This influence of the Self upon its presentations is under our theory necessarily of constant occurrence and is clearly of the most fundamental importance. It influences the form of sense impressions, of perceptual and conceptual trains, and of impulsive reactive states, as they appear in attention.

Naturally this influence is most distinctly marked when sense impressions of diverse nature vie with one another to control the noetic pattern of the moment, when disparate percepts and concepts stand opposed, when diverse impulses clash. In our normal states of consciousness there are always co-existent many intensities of many elements, some of these elements quarrelling amongst themselves, if we may so speak, while some are perfectly harmonious;—some tending to produce a "noetic pattern" which demands separation from the prevailing Self, while others join with the prevailing pattern and bring out of it new forms without separating themselves from the main psychic mass.

When a special intensity fails to emphasize an element which is consistent with the noetic pattern existent at the moment in the Self, while another special intensity does emphasize an element which is consistent with the noetic pattern then existent in the Self, then we have a very clear case of the action of the Self. It acts as a whole to emphasize and hold in prominence the partial presentation which is compatible with its noetic pattern of the moment; and it as a whole fails to act in relation to the partial presentation which is incompatible with its noetic pattern of the moment. The incompatible noetic pattern, which under other conditions might be formed, fails: the partial presentation whose emphasis would be required for its persistence disappears from the field of attention. This constitutes the act of attention by the Self upon the presentations which accrue to it.

It is not self-conscious. No volitional act is appreciated. Nevertheless as objectively considered the efficiency of the Self appears definite and clear.

Sec. 9. There are many cases also where there accrue to the Self two partial presentations which equally tend to be held in attention. The state of tension may be, and usually is, dissolved by some change of character in the partial presentations themselves. But it may also be, and often is, dissolved by the reaction of the Self: and frequently in what upon reflection seems to be a most mysterious manner. If we are self-conscious we have the phenomenon of choice: but we are here referring to cases where not being self-conscious the act of will is not given in attention. Nevertheless an objective observer would note the same hesitancy, and final determination of a definite course of action, in the one case as in the other.

"We know" says Prof. James[1] "what it is to get out of bed on a freezing morning in a room without a fire, and how the very vital principle within us protests against the ordeal. Probably most persons have lain on certain mornings for an hour at a time unable to brace themselves to the resolve. We think how late we shall be, how the duties of the day will suffer; we say 'I must get up, this is ignominious,' etc.; but still the warm couch feels too delicious, the cold outside too cruel, and resolution faints away and postpones itself again and again just as it seemed on the verge of bursting the resistance and passing over into the decisive act." The state as thus far described by Dr. James is one of clear self-consciousness in which the empirical ego fails to break the deadlock. But he goes on to say "Now how do we ever get up under such circumstances? If I may generalize from my own experience, we more often than not get up without any struggle or decision at all." (Or to put it differently, we get up without any evidence of the efficiency of the empirical

[1] *Psychology*, ii. p. 524.

ego in determining in a voluntary act the emphasis of one of the incompatible impulses.) "We suddenly find that we *have* got up." Some influence from a source which is not in the field of attention has broken the deadlock. Prof. James explains the fact by saying "a fortunate lapse of consciousness occurs; we forget both the warmth and the cold; we fall into some reverie connected with the day's life, in the course of which the idea flashes across us 'Hollo, I must lie here no longer,' an idea which at the lucky instant awakens no contradictory or paralyzing suggestions and consequently produces immediately its appropriate motor effects. It was our acute consciousness of both the warmth and the cold during the period of struggle which paralyzed our activity then, and kept our idea of rising in the condition of *wish* and not of *will*. The moment these inhibitory ideas ceased, the original idea exerted its effects."

But what is it that makes "the inhibitory ideas cease," and "the original idea" remain to exert its force? It is surely due to no noticeable change in the environmental conditions of impression, nor to any change in the nature of the conceptual trains themselves. It is due to no influence of the empirical ego. But out of the air, as it were, comes some influence which emphasizes one and minimizes the other of the two incompatible impulses. This influence it appears clear is from the Self which cannot be given as a presentation; from the Self which, as it emphasizes one and minimizes the other of the two incompatible impulses, must evidently be of the same fundamental nature with that which is emphasized.

Sec. 10. The action of the Self and of the empirical ego is clearly observed in relation to the acquisition of habits. The musician who would learn to play the piano perfectly must in the beginning with voluntary effort attend to certain sensations telling him of artificially constrained motions of his fingers; as he continues his practice his efforts to maintain

attention upon these sensations becomes less and less prominent in consciousness; and finally he finds that actually he is unable to think of them at all. In the beginning the efficiency of the noetic system becomes explicit in the act of will of the empirical ego determining attention. But gradually, as the whole noetic system becomes modified, self-conscious effort disappears, although the Self still determines attention to the presentations. Finally when the neural activities correspondent with these presentations become fully assimilated with the whole neururgic system the presentations disappear, are absorbed into the Self as it were.

Sec. 11. We may note here one point of practical importance in connection with the action of the empirical ego in maintaining attention, in regard to the relation between voluntary attention and what we speak of as the retention of ideas, which is but another way of describing our ability to bring into attention certain presentations which we find important in our life. The acquisition of new ideas normally involves attention to these ideas for a longer or shorter period; and this acquisition is usually greatly aided when the active effort of the empirical ego appears in the rivetting of attention upon them. Now by the acquisition of a new idea we mean that this idea has become so connected with our every day normal waking consciousness that we are able upon occasion to retain it in attention. What we assert above therefore is that this connection is more likely to be made when the idea was originally so intense that it appeared in the focus of attention; but that it is especially likely to be made when the whole conscious system, as represented in the empirical ego, by its reaction upon the idea holds it in attention when otherwise it would have disappeared.

Evidently we might have been led to look for just these facts as the result of our study of attention had they not been brought to our notice by their importance in our normal life, and by their pedagogical significance. For the fact that a

new idea appears within the focus of attention means that it is in some measure related with the broad psychic system; and if it is thus related it must have gained attachments with this broad system which may at a future time lead to its revival. If the new idea does not appear in, or near, the focus of attention, if we may so speak, it is because it has not gained these attachments; and in such a case its revival in future moments might well be expected to fail.

But beyond this, the fact that a new idea is held in attention by voluntary effort means that it has been able to assimilate with the whole mass of the psychic system to such a degree that the Self clings to it, and sustains it to so marked a degree that the simulacrum of the Self, the empirical ego, appears in a state of self-consciousness as thus sustaining it; and under such circumstances evidently we should expect it to become part and parcel of the broad psychic system which prevails in our every day waking life, and therefore should expect it to be involved with those normal movements of attention to which we refer when we speak of the idea as being permanently retained.

B. The Relation of the Empirical Ego and of the Self to Realness

I. The Effect upon the Empirical Ego and upon the Self

Sec. 12. If the emphasized broad undifferentiable minor neururgic system which we suppose to correspond with the empirical ego is affected by a specially emphatic activity in a relatively limited neural part; then evidently the form of the whole neururgic pattern in the emphasized broad system will be more likely to be modified if the activity of the part is relatively stable than would be the case were this special activity merely of a fleeting type. Correspondingly we should say that an object which is relatively stable must affect

the nature of the empirical ego more quickly and effectively than an object that is relatively unstable. In other words objects in which a considerable degree of realness is developed should be those in connection with which we should note modifications of the empirical ego with which they are contrasted.

The most striking experiences of presentations that are relatively stable are those which are given when the psychic emphasis is determined by the stimulation of the body by a continuing stimulus from the environment. When a state of self-consciousness is developed under such conditions we should then expect to note some modification of the empirical ego which would not be noted where the stimulus is momentary and fleeting. That is, persistently intense sensations, and continuing percepts of objects in the outer world, if occurring in self-conscious states, should give us our clearest sense of the modification of the empirical ego.

This is unquestionably a matter of every day experience. A continuous sound of bursting bombs, as I am writing this, changes the nature of my empirical ego so that I feel myself a being that is interested in the display of fireworks, and all the attendant disturbance of an election mass meeting: while a moment ago I was quite a different ego, determined to write out a given expression of a given thought. Now that the noise has ceased I am again at the writing, practically the empirical ego that existed before the explosion occurred.

Sec. 13. If, as we hold, the relation existing between the Self and its presentations is analogous to the relation existing between the empirical ego and its objects: then we should expect to find evidence of modifications of the Self due to the action upon it of presentations in which realness is marked. While it is impossible to gain evidence of this from introspection, nevertheless we may expect to find some objective evidence: for if the Self is fundamentally of the same nature as its presentations, the Self must eventually be

modified by the persistence in attention of such very real presentations.

Clearly there is much objective evidence going to show that the nature of the Self varies thus within limits from time to time, as is indicated by the different moods of a man, as we say. And if we observe a man closely we note evidence that such changes of his Self vary with the recognizable realness of the presentations within his field of attention. Quite apart from any self-consciousness, the naturally joyous man may become morose if he hears of losses of property, provided these losses appear very real to him,—provided, as we say, he fully *realizes* their importance: and on the other hand the morose man may become a joyful happy one if some good fortune comes to him, and brings with it presentations of a pleasing nature which persist and thus become real.

Apart from such more or less superficial and transient modifications of the Self, it is exceedingly difficult, as we have seen above, to change the general nature of the Self fundamentally and permanently. We should therefore expect to find it possible to observe the effect of very real presentations in changing the more fundamental nature of the Self only in cases where they are markedly persistent: and this persistence itself involves a high degree of noetic stability or realness.

To illustrate this point we may take the case of what we call religious conversion, which at first sight does not seem very favorable to this contention. We see a man whose life is perhaps altogether given up to personal advancement, for whom the real things of life are those which concern his social preferment or business success, brought to think of the world in which he has been living as wholly hollow and false,—led even to abandon it altogether in favor of a monastic life of privation: for him then the real presentations are no longer the views of social life which had affected him before his conversion, but his notions of the value to his soul of what

he thinks of as not of this world. The changes in the nature of the man's Self thus described as objectively viewed seem often to be rapid and notable at the moment of conversion, but if so it is to be noted that we find ourselves unable to count on the persistence of the changed Self. The converted man may very readily become a backslider. The Self only becomes a fundamentally changed Self if the newly gained presentations within the field of attention of the converted man remain permanently real; *i.e.* if he persists in his new mode of thought for years; and then finally we find him a fundamentally altered Self,—a new man, quite diverse in character from the man of earlier years, as is shown by all the reactions he makes upon the many stimuli which reach him from his environment. What were temptations to him in his earlier life no longer affect his thought or action. His average mood will usually have changed altogether.

II. The Effect of the Empirical Ego and of the Self

Sec. 14. Turning now to the consideration of the effect of the empirical ego upon the realness of its object, we note that if our hypotheses are valid we should expect to find that if an increment of neural activity which reaches the neururgic system considered as a whole is assimilated by any broad minor neururgic system within the total neururgic system, the increment of activity will thereby become more stable, and will affect a change in the form of the neururgic pattern of the whole system. Furthermore we must expect to meet with cases where two neururgic increments, incompatible with one another, accrue to some broad minor neururgic system at one and the same moment. In such cases the form of the broad minor neururgic mass would itself determine which of the two incompatibles would be assimilated and become stable.

If our theory of a thoroughgoing neururgic and noetic

correspondence is correct, then correspondences with the above situations should be noted in our life of reflection. If in a self-conscious state an object, a psychic increment as it were, appears accruing to such a broad minor noetic system as we hold the empirical ego to be, and is assimilated by it; then we should expect that the influence of the empirical ego would appear in experience as tending to establish the stability of this object,—as tending to give it realness.

As has been already remarked in Chapter xv., to which I would refer the reader, no one who examines his inner life with care can fail to notice how constantly and persistently his empirical ego is bound up with, and appears to enforce the realness of, objects which are readily assimilable, and is appreciated as discouraging the realness of those which are not readily assimilable. But this influence of the empirical ego in establishing the stability,—the realness,—of the object becomes clearer when in relation with the empirical ego appear two objects the complete realness of one of which is incompatible with the complete realness of the other, both of which however persist for a more or less prolonged period in attention, *i.e.* have a relative stability or realness, because both are in part assimilated, and yet neither fully assimilated. Then finally we find ourselves emphasizing the realness of one of the incompatibles and asserting our *belief* that one of the two is true or real, and that the other is false or unreal. In such cases the empirical ego is distinctly experienced as active in establishing the realness of the one of the two incompatible objects with which it most fully assimilates: we distinctly appreciate that we believe in what seems to us most in harmony with our every day selves, *i.e.* with our empirical egos.

In all cases of belief the process is the same, and it consists in the appearance from within the empirical ego of some influence which constrains us to resolve in some one direction the conscious opposition involved in doubt. It is from within the empirical ego that proceeds the power to take that

active part in the process which Dr. James speaks of as "loading the dice," so far as this is apprehended.

Sec. 15. If now we turn to the observation of the action of the Self upon presentations, we find much evidence that the Self determines the realness of presentations which are assimilable by it, just as we have seen that the empirical ego determines to a large extent the realness of its objects in self-conscious states. In this case however we cannot observe the Self "in action" so to speak, as we can observe introspectively the empirical ego willing as belief appears; for the Self in its very nature cannot appear as a presentation. We do observe however certain presentations becoming real, and persisting as real, for no reason inherent in themselves. As observers from without we see that the establishment of this realness is due to the character of the man,—due to the influence of his innermost Self. It is the man's Self that thus to a great extent determines the realness of his presentations; which realness, as we have already seen *conditions* his beliefs.

Sec. 16. We are here dealing directly with the Self, and only indirectly with its simulacrum the empirical ego, which as we have seen is not implicated until a questioned realness is established in a self-conscious state in the field of attention in the act of belief;[1] and here I wish to emphasize the fact

[1] If the psychic system is always implicated in the appreciation of realness, although only appreciated thus explicitly in belief, it cannot be true, as J. S. Mill held (note to his edition of Jas. Mill's *Analysis*, p. 412), that the distinction "between thinking of a reality and representing to ourselves an imaginary picture" is "ultimate and primordial." Nor is it likely to be possible to hold with Stout (*An. Psy.* ii. p. 260) that "to imagine is simply to think of an object, without believing, disbelieving, or doubting its existence." Much more probable is it that we shall find fully defined belief fading off into states in which we recognize no measure of realness given from within. Taine indeed felt warranted in maintaining that each imagination involves a belief more or less momentary; but in speaking thus he seems to have failed to guard himself

that the Self is *always* implicated with the existence of the realness of the presentation of any special moment.

A. The stability of a neururgic emphasis must always be determined by two factors; 1st, by what we may call the inner efficiency of the emphasis itself, which is for the most part determined by the forcefulness of environmental stimuli, or of the resultants of such stimuli; and 2nd, by the nature of the sum total of activities of the mass of the whole nervous system as exclusive of the emphasis.

B. At times, a careless view might lead us to think that the stability of a given neururgic emphasis is given solely by its own inner efficiency; but evidently this can never be actually true, if it is true that a thoroughgoing reciprocal efficiency exists between all parts of the neururgic system. There must, if we may so speak, always be some measure of welcome, or rejection, of the emphasis by the whole neururgic system even when this is overlooked; and it would thus appear that the undifferentiable mass of unemphatic

against the common error of reading back into a past state the characteristics which we find in the revivals of self-conscious states as they are viewed in reflection.

The fact seems to be that our imaginations exist in different realms of realness from our every day conceptions of reality. Each imagination has some degree of realness in its own realm, and so far as it has this realness the psychic system must have its influence in the determination of that realness. That, however, does not imply that this influence of the system must always be in any sense explicit: it does, however, imply that it is in some measure implicit; and if this is true it is impossible to draw a hard and fast line between imagination and knowledge. This view is verified in the fact that those imaginations which we call "pure fancies," are closely allied with what we call the world of "make believe," which without doubt, most people would describe as involving imaginary states. Yet it is clear that in the very name "make believe" there is connoted a recognition of an act of the ego which compels the belief, which, in other words, wills to overlook the inhibitions of every day life, and to allow the flow of thought in the fanciful combinations suggested by mere association.

nervous activities always plays its part in determining the measure of stability displayed by a given neururgic emphasis.

α. Correspondingly the realness of a noetic emphasis must always be determined by two factors. 1st, by the inner efficiency of the noetic emphasis itself; and 2nd, by the nature of the whole noetic system as apart from the emphasis, that is by the nature of the field of inattention, *i.e.* by the nature of the Self.

β. At times, a careless consideration might lead us to think that the realness of a given noetic emphasis is given solely by its own inner efficiency; but clearly this can never be actually true. There must always be some measure of welcome, or rejection, of the noetic emphasis by the Self. It would thus appear that the Self always plays its part in determining the measure of realness displayed by a given noetic emphasis.

Sec. 17. Introspection tells us that the realness of our percepts and of a large part of our concepts is due to influences from without; and inheritance, tradition and custom must be classed with these influences inasmuch as they are influences extraneous to the concepts to which they relate. The realness of the sound of the church bell thus appears due to the persistent extraneous stimuli due to vibrations of the air with which I am now surrounded. In like manner the realness of conceptual "objects in the outer world" may be looked upon as largely due to the extraneous influence of inherited individual experiences: the realness of the verities of religion as largely due to the extraneous influence of tradition; the realness of the value of constitutional government as largely due to the extraneous influence of custom.[1]

[1] The reader of chapter xv. will note that so far as the establishment of realness by these extraneous pressures appears alone, as it does in such cases of reflection as we here describe, belief proper cannot be said to exist, and therefore cannot have been forced upon us. We have, as we have seen, the conditions which make belief possible, but not belief itself. We are not concerned with,—we usually pass over entirely and

Such cases may not unnaturally lead us to say that it does not seem in the least clear that the efficiency of the Self is always implicated in the establishment of the realness of a presentation.

But, after all, it appears upon examination that failure to observe the efficiency of the Self should be expected to occur in such cases: for when the conditions are such that the stability of a presentation appears to be as it were forced upon us from without, the influence of the psychic system,—of the Self,—in the establishment of this realness must necessarily be so unemphatic that even indirect evidence of the efficiency of the Self must often fail us. Some indirect evidence of this constant action of the Self we have to be sure if we agree that the empirical ego in self-conscious states is a simulacrum of the Self; for the empirical ego always appears as efficient in giving realness to its object in the moment of belief, although this efficiency of the empirical ego is at times easily overlooked; and if this is so it would appear that the Self must be at all times efficient in giving realness to its presentations, even though this efficiency of the Self is often entirely unevidenced in reflection.

Sec. 18. Nor are we without some direct evidence in favor of this view. We have it in many moments of our experience when all reasons which come before us in the field of attention lead us to question the realness of a given presentation; and when, notwithstanding this, we find an irresistible persistence of a realness which frequently results in the production of a belief which would be discredited were the presentations of reflection alone of moment. This influence

take for granted,—the realness of the conceptions thus enforced by inheritance and tradition and custom, and have no belief at all in relation to them. The most that we can say is that when we view our lives in retrospect we find that we act as we would have acted if, doubt having been aroused, we had experienced what we know as belief in the conceptions referred to.

which thus enforces the realness which conditions the belief is within consciousness; it does not inhere in the field of attention; it must come from within the very Self.

As we have seen in previous chapters, this Self is of the nature of a huge bundle of instinct experiences, which are so vague, and broad, and undifferentiable, that they cannot appear in attention, but make up what I have called the field of inattention. When therefore from within this Self,—this mass of undifferentiable instinct experiences,—there appears an influence which determines the realness of a presentation, this influence is due to the existence of instinctive tendencies of the most fundamental character, of the most thorough coordination, which act without telling us (by attracting our attention as presentations) that they are acting or are going to act.

This silently efficient Self is in the main the resultant of our inheritance from the ages, and is in only a relatively small degree due to our own experience in this life. It speaks of the experience of all our ancestors; of those who were men, and of that long line of living forms from whom the first of human beings were descended. These racial experiences have impressed upon us apperceptive systems, and impulse series, in which certain forms are implicit. When some conception presents itself to us in which this form is explicit, then it is that the Self silently acts to establish the realness of the conception: it stands ever ready to assimilate this conception. Thus the Self, altogether within consciousness but nevertheless not given as an empirical ego, acting so silently that it appears merely as a mysterious influence, "loads the dice" in favor of the realness of the conception which is assimilable. It is the existence of the implicit form in the Self that thus determines the realness of the conception, *i.e.* its relative permanence.

The Self as I have said above speaks of the experience of all our ancestors, of those who were men, and of man's long

line of progenitors of diverse animal forms. It speaks with impressive force the voice of this racial experience. If it breaks down a hesitancy, a doubt, it, in that very fact, raises objections from racial experience to the notion which is overthrown. It says to us, "the elements which are present in the field of attentive consciousness represent but a paltry array of experiential effects; I who am the resultant of the experience of the ages judge that what, speaking objectively, you call the belief which is appearing in the field of attention, and which I overthrow, has a dangerous outcome. It may be impossible to place my objection in the field of attention in ratiocinative form, but my experience from the vast aeons of time leads me to see that the realness, the truth, is on my side,—that the essence of the statement which appears in the field of attention must be modified if it is to harmonize with this racial experience. This realness is maintained by my influence; and the doubt, if it recur and persist, should merely serve to emphasize the necessity of restatement of the conceptual presentations involved, so that my act may appear to accord with the outcome of ratiocinative process."

We thus perceive more clearly the significance of the statement made in an earlier chapter that the Self is the conservative part of consciousness; its influence is habitually in favor of the old, and in opposition to the new that does not harmonize with the old.

Sec. 19. According then to the view here presented, the realness of a presentation is always determined in part by the influence of the whole psychic system;—*i.e.* by the Self. Extraneous forces, persistent and powerful stimulations from our environment, inherited "psychical dispositions," traditional influences, the habits engendered by custom, may at times, and in fact do to a large extent, have a large part in the making of this realness; but they do so only because they themselves have had to do with the moulding of the form of the whole psychic system the mass of which is the Self. And

this Self must necessarily in all cases be involved in the establishment of the realness of the presentations given to it.

In certain cases the measure of realness of a given presentation is placed in contradistinction to the measure of realness of an incompatible presentation, and then we have the condition of doubt. The efficiency of the Self is implicated in the momentary establishment of the realness of each of the given incompatibles. It is also implicated in the changed realness of the one of the incompatibles whose realness finally gains the ascendency. But this influence is not always explicit, and in fact in most cases it is not a matter which appears at all in the field of attention: usually quite without appreciation of the efficient Self, one of the incompatibles becomes real, the other unreal: the doubt disappears without anything like a recognition of the basis of the accrued realness.

But as we have already seen, whenever the action of the Self does become explicit in attention it appears as the action of the empirical ego which is efficient in the determination of which of the two incompatibles is to be real in clear consciousness;—which, in other words, wills, and leads the man to say "I believe."

Sec. 20. An interesting corroboration of our hypothesis that what psychologists call "feeling" is the inexplicit empirical ego, is found in connection with the influence which is attributed to "feeling" in relation to belief.

When we take an objective view and refer to those conditions of realness which are liable to lead a man to the experience of belief (which conditions as we have seen men often carelessly speak of as beliefs) we note that he is influenced by what we know to be the nature of the man's Self which when presented appears as its simulacrum the empirical ego. In like manner we find him influenced by what he would describe as his experience of "feeling."

And turning to the self-conscious experience of believing, we find as we have seen that when belief is clear cut we recognize the efficiency of the empirical ego. When however the state of belief is not distinct but is vague, then we are all likely to ascribe the breaking of the deadlock of doubt to "mere feeling." Prof. James makes frequent reference to this fact in his *Varieties of Religious Experience.*

III

Sec. 21. It seems appropriate here to consider a certain class of presentations the nature of which is dependent upon their experienced relation to the empirical ego, and in connection with which an especial degree of realness is developed. I refer to those special presentations which we experience in the process of sense perception, and which we designate as percepts.

As Dr. Stout says, it is not impossible to speak of the appreciation of the fact that I am desiring, doubting, impatient, or resentful, as cases of perception; but in the common usage of psychologists, which I shall follow, perception means sense perception. The fact that we find it possible to use the word in the broad way referred to by Dr. Stout merely tends to enforce the view that all presentations are fundamentally of the same nature.

Percepts proper involve sensational emphases, as is indicated by the above noted fact that we may always speak of them as sense-percepts. The fact that they thus involve definite sensational emphases distinguishes them from concepts, which latter do not involve distinct sensational emphases although they may involve characteristics which appear as reconstructions of sense data, and of many of the other attributes of percepts. That concepts as a class are to be separated from percepts as a class is clear in the fact that certain concepts *e.g.* "the functions of calculus," or "the law of development," seem to involve no possible sensational emphases.

Percepts are also distinguished from imaginations, which latter are when thus distinguished thought of as mere subjective states, which means that they are bound up with the appreciated empirical ego. The contrast between imaginations and percepts therefore indicates that the latter are always objects in a self-conscious state in which the object-subject relation is developed. It is clear however that not all mere objects are percepts for the distinctly non-perceptual concepts above referred to may well be objects in self-conscious states.

Again sense-percepts are always spatially qualified; that is they always involve as part of their essence characteristics which when developed lead us to their ascription to the influence of objects in a world outside and beyond ourselves. But clearly it is not the mere presence of this spatial quality which makes percepts what they are, for we experience certain concepts which also involve spatial characteristics: *e.g.* the concepts "the solar system as a whole," or "the other side of the moon." These concepts cannot be based upon what has been or can be perceived; although as they develop we find that they involve the connotation, that if the conditions were other than they are the appropriate object might be perceived: they may thus be described as permanent possibilities of perception, to change slightly Mill's phrase.

Percepts are notably qualified by realness. Nothing is more real than the existence of them and of their outer world basis which is of the essence of their connotation. But as other presentations than percepts are notably real this realness itself can of course not be the quality which gives them their special character.

But beyond all this, percepts are involved with an apprecia tion of an empirical ego alert and affected by them. Without this appreciation of the relation to the empirical ego we cannot properly be said to perceive. We thus find that the percept is a presentation which is sensationally and spatially qualified, and which developes a high degree of realness, but especially

in conjunction with a sense of an efficient relation to the empirical ego. If any one of these four characteristics is wanting in a presentation, this presentation is not a percept.[1]

Sec. 22. We may now turn for a moment to the consideration of a highly complex conceptual system which developes as the result of the experience of multitudinous percepts, in which conceptual system we recognize these percepts as subjective and set over against, and as representative of, real objects in an outer world.

These real objects in an outer world are notably real objects which have spatial attributes but they are not sensationally qualified, and are not necessarily appreciated as affecting me; the presentations related to them are thus not percepts, but are complex concepts which involve the existence of a broad outer-world conceptual system.

As we have said above this outer world conceptual system is set over against the percepts which give it birth, these latter being conceived of as less stable than the conceptual "object in the outer world," which is conceived of as existing through the past perceiving, and the present perceiving, and the future perceiving, or even in those moments when there is no perceiving. In all cases of self-consciousness, as we have seen, the less stable parts of complex presentations tend to attach themselves to the empirical ego; in the case here considered therefore the stable conceived "object in the outer world" is

[1] As we have seen in Appendix A, sec. 25. It cannot be held that percepts are what they are because of their social connotations. As Boris Sidis well says (*Psychological Review*, xv. 2, p. 119): "The percept is not experienced as external, because it is common to other people. We do not see the tree yonder, because other people can see it too; we would see it there even if, like Robinson Crusoe, we had no fellow-being to compare notes with. A hallucination is as fully a percept, and is perceived in the full garb of external reality, although it may have no currency with my fellow-men. The percept possesses the co-efficient of external reality, no matter whether or no others can share in it."

par excellence objective; and on the other hand the less stable percept as remembered, or experienced now, or expected, is attached to the empirical ego, *i.e.* is thought of as subjective.

We not infrequently overlook the true nature of this conceptual world because we are unable to reflect upon the nature of percepts without discovering that they carry with them, as a connotation, this outer world conceptual aspect which leads us to conceive of the outer-world objects which appear to arouse them as persisting whether the percept exists or not. Furthermore this outer world as a whole is conceived as persisting through all those less real presentations which were perceptual in my past, or are now perceptual, or which may be perceptual in the future. So parts of it are conceived to exist when there is no possibility of their perception, but where their perception might be possible were conditions changed (*e.g.* the opposite side of the moon). And it must be noted that all of these conceptions are appreciated in reflection as necessarily implicated with our experience of percepts.

It is by an extension of this reflective process that we reach the conception of the "ding an sich," and of Realities, which are not perceived, and which may even be conceived of as not within the realm of possible perception; but which nevertheless are appreciated as relatively stable in relation to our actually present, or remembered, or expected, percepts.

Sec. 23. The fact that percepts involve realness for me naturally leads to a further conceptual connotation of these conceived realities, which are thought of as bearing the same relation to other men that they bear to me. And this connotation is so firmly involved with the general body of our percepts that the realities conceived of as their basis are somewhat generally assumed to be what they are because of their relations with the empirical ego of the percipient, together with their imagined relations with the empirical egos of other percipients. That this assumption is made by the common man is clear in the fact that he hesitates to accept the existence

of these realities if he finds that he alone experiences the percept with which the reality is implicated.

This fact as we have seen has led a number of men of high authority to hold that the recognition of an outer world reality is necessarily bound up with the appreciation of social relations: a view which does not seem to me to be warranted. I conceive of the existence in space of cold dead suns, and if I alone of all men had attained the stage of mental development in which this conception is possible I might well believe in the existence of these suns even if no other man was living, or ever had lived. It is true that if doubt is raised as to the existence of these suns I naturally ask for corroboration in the concepts of other men; and it is also true that I conceive myself as so constituted that I might under other conditions perceive these suns of whose existence I conceive: but this permanent possibility of perception serves merely to make firmer in retrospect my belief in the reliability of my conception of the object in the outer world as originally given. In such cases I imagine myself,—and usually this is easily observable,—in a position to experience a percept of the conceived object, and as experiencing it, and as believing in the existence of the object I would then perceive; and this quite apart from any corroboration of any other possible perceivers than myself.

C AND D. THE EMPIRICAL EGO AND THE SELF AS RELATED WITH THE ALGEDONIC AND TIME QUALITIES

Sec. 24. The reader of Book II. may have noted that while we have held that we could never properly overlook the influence of the psychic system as this becomes explicit in the empirical ego, there was a difference between our treatment of this influence in relation to intensity and realness which we have again considered in the sections preceding this, and our

treatment of this influence in relation to pleasure-pain and the time quality.

In relation to intensity and realness we have shown the evidence of the influence of the psychic system as displayed in what appears as a creative activity, if we may so speak: the psychic system as explicit in the empirical ego is experienced as forcing attention and as producing objectivity, as we have just seen. But the same cannot be said in relation to the algedonic and the time qualities. We cannot say that we appreciate the empirical ego as active in the production of a definite time phase: the most we can say is that a definite time phase becomes attached to and bound up with the empirical ego, making the presentation appear familiar, or anticipatory, as the case may be; and that the empirical ego is active in being thus bound up. Nor can we say that we appreciate the empirical ego as active in the production of a pleasure or a pain; the most we can say is that a pleasure or a pain becomes especially linked with the empirical ego; and that, if a pleasure or a pain is once given, the empirical ego clings to the pleasure and revolts from the pain.

This marked distinction which at first seems baffling is in the end found to be corroborative of our general positions. If the empirical ego is of the same nature as, and reciprocally efficient with, the object related to the empirical ego, its efficiency can only be shown by the emphasis of certain assimilable elements in the object: and such efficiency would give us such influences upon intensity in attention, and upon stability or realness in objectivity, as have been discovered, because both intensity and realness are bound up with the mere existence of specific emphases in the presentations to which they attach.

But if our hypotheses are correct neither the algedonic quality nor the time quality can be thus related to the emphases as mere existents. Pleasure and pain are phases of a quality determined by capacity, which is due to past condi-

tions and is not wholly determined by the inner nature of the emphases, as is the case with intensity and realness: hence it is that while pleasure and pain bear close relation to the empirical ego, this empirical ego cannot directly enforce or minimize either of them except as it enforces or minimizes intensity and realness in relation to them. In like manner, if the time quality of a presentation is determined as we have suggested by relations of complexity which are determined by conditions extrinsic to the presentation as it appears, then its phases are only very indirectly determined by the inner nature of the emphases which give attention and objectiveness: hence it is that, while the time phases of presentations bear close relation to the empirical ego, this empirical ego is not appreciated as creating a time phase in connection with a presentation except as it enforces the attention upon this time phase, or makes it objectively real for me.

It is apparent therefore that we cannot expect to show the reciprocal efficiency existing between the Self and the empirical ego, and the algedonic or the time qualities, in as clear a way as we have done in relation to intensity and realness; it may nevertheless be interesting to consider briefly the effect which the several phases of these qualities as experienced in connection with objects have upon the empirical ego, and what effect the empirical ego has upon objects thus qualified; and less directly the reciprocal influences of the Self and its presentations as thus qualified.

C. The Empirical Ego and the Self as Related with the Algedonic Quality

I. The Effect upon the Empirical Ego and the Self

Sec. 25. That pleasant and painful objects very clearly transform the empirical ego is it seems to me as clear as any-

thing can be in introspection. If I am living in a world of pleasant experiences my empirical ego as a cheerful joyous man is surely a quite diverse entity from that which exists when I am living in a world of painful experiences and am depressed and sorrowful.

Objective observation makes the same fact clear in relation to the Self. If we may judge from the reactions of the individual man to whom we offer the joys of life, when he is entirely non-self-conscious, his Self is clearly diverse from the Self of the same physical individual to whom we bring disappointment, or care, or woe.

Evidently such differences of reaction upon the empirical ego and the Self by the pleasures and pains of life should be expected under our views; for the pleasant objective presentations involve neururgic conditions which tend to persist, while the painful objective presentations involve neururgic conditions which tend to disappear; markedly pleasant objects will therefore have more hold than painful ones upon their coexistent the empirical ego; and markedly pleasant presentations more hold upon the Self than painful ones. Pleasures then on the one hand will tend to transform the empirical ego and the Self in the direction of a greater breadth, as in joyfulness; while pains will tend to narrow and restrict the empirical ego and the Self, as in depression of spirits.

This will of course be distinctly marked only in relation to the clearly presented empirical ego; and that what are appreciated to be pleasant objects related to the empirical ego, (when both are experienced as parts of a complex presentation to the Self in self-conscious states) do result in an expansive attitude of the empirical ego is clear from the general experience of mankind; so marked indeed is this experience that it has led not a few writers to speak as though this transformation of the empirical ego were of the very essence of pleasure itself. That painful objects related to the empirical ego on the other hand do result in what appears in relation to the result of

pleasant experience as a narrowing of the "feel" of the empirical ego is equally clear, as is seen in the fact that the same writers have not hesitated to hold that this narrowing of the empirical ego is of the very essence of pain itself.

This experience of the narrowing of the empirical ego in the presence of painful objects, and of its expansion in the presence of pleasant objects, is interesting in connection with our theory as to the relation of the empirical ego and the Self. For if the empirical ego is narrowed it must be by absorption into a somewhat like itself which is not presented, and if it is expanded in like manner it must gain from this same non-presented somewhat of like nature with itself.

Now what was the Self before the pleasant presentation was given must be aroused during the pleasant experience to higher efficiency; and under such conditions certain of its elements will be likely to be split off, as it were, *i.e.* to become part of the presentation. If the presentation is one of self-consciousness this split off part of the Self will be likely to become attached to the empirical ego, if the empirical ego is of a systemic nature analogous to the Self. This would aid in the emphasis of that sense of expansion in the "feel" of the empirical ego under the experience of pleasure of which we have spoken above.

On the other hand what, under our theory, was the Self before a painful presentation was given, will be in general reduced in its efficiency during the painful experience, and into its undifferentiable non-presentable mass will be absorbed certain of the elements which before the moment of painfulness were part of the presentation. If the presentation is one of self-consciousness the absorption will be likely to be from the empirical ego. This would aid in the emphasis of that sense of restriction in the "feel" of the empirical ego of which we have also spoken above.

II. The Effects of the Empirical Ego and of the Self

Sec. 26. We turn thus naturally to the consideration of the reaction of the empirical ego upon those of its objects which are pleasant and upon those which are painful; and of the Self upon presentations respectively pleasant and painful.

Under the hypothesis maintained in earlier chapters an object related to the empirical ego is pleasant when the activity of its special corresponding neural element or elements involves the use of surplus stored energy. Other things being equal, this involves a spontaneous continuation of activity of the neural element or part; and, as the result of this, a tendency to the production of a higher general activity in the complex neural system as a whole, part of which complex system is the whole broad minor system corresponding with the partial presentation which we call the empirical ego.

Under the influence of a pleasant objective presentation therefore the constitution of the minor neururgic system which corresponds with the empirical ego is bound to be broadened, and elements within it as thus broadened to be raised to a higher grade of activity. Under such conditions the neururgic increment which involves a high grade of activity in a part of the whole system is more likely to act in harmony with some active elements of the minor system which is the correspondent of the empirical ego, to be assimilated by it, than would be the case if this minor system's activity were not increased by the fact that its increment induces a transformation of energy from a potential to a kinetic form.

We should naturally expect therefore, in the first place, to experience, in connection with a pleasant object in self-consciousness, a sense of expansion in connection with the empirical ego; and this we have seen in the preceding section is the case. In the second place we should expect to note that the empirical ego spontaneously acts to sustain the pleasant object in attention, and this is also clearly a matter of

every day experience. We choose to cling to pleasures, and to act in special ways to continue the pleasant experiences.

Sec. 27. Under the hypothesis referred to in the previous section an object related to the empirical ego is painful if the activity of its special corresponding neural elements is forced upon it by stimuli[1] to which it is unable to react spontaneously. Other things being equal this involves a tendency of these elements to desist from their activity, and a failure of complete answer to the stimulus which is producing the painful presentation. These conditions in themselves evidently involve no tendency, such as we find where the presentation is pleasant, to a heightened activity of the whole neururgic minor system which is coincident with the empirical ego: on the contrary they involve what is equivalent to a relative loss of energy within the neururgic system as a whole. Under the influence of a painful object therefore the constitution of the minor system which corresponds with the empirical ego is bound to be narrowed in relation to what it would be were the object a pleasant one; and elements within it are less likely than under other conditions to appear as acting in harmony with the elements emphasized by the presence of the painful object.

We should naturally expect therefore, in the first place, to experience, in connection with a painful object in self-consciousness, a sense of the narrowing of the empirical ego; and that this is the case we have seen above. But in the second place we should expect to note that the empirical ego fails in general to sustain the painful object in attention, and that this is in accord with experience is also very clear. Nothing can be more certain than that we (our empirical egos) have no welcome to give to painful objects.

Sec. 28. But evidently we go beyond the mere colorless

[1] The reader will, of course, see that the word "stimuli" is here used in its widest sense, and does not refer exclusively to those which reach the system from its environment.

warmth toward pleasant, and coldness toward painful, objective presentations. Evidently the mere tendency to the assimilation of a pleasant object by the empirical ego as above described is greatly emphasized in our complex life by processes which should be looked for in connection with the nature of organic development as we understand it. The general ebullition of activity within the neural system which accompanies pleasure is turned by nature's processes into special channels, and is made use of by her to induce continuance of the processes which occasion the pleasure: for organisms which as a whole act in a manner to welcome the effective activities which involve pleasure will on the whole tend to survive, and thus pleasures have in general become attached to activities which have been, or still are, conducive to organic well being. Those organisms therefore which tend to act in a manner which will emphasize and continue pleasant rather than painful elemental activities will be the more efficient as the result of this emphasis and continuance. It is possible thus with Mr. Spencer to describe pleasure as "a feeling which we *seek* to bring into consciousness and *to retain there*." It is the Self as explicit in the empirical ego that by its influence tends first to emphasize the pleasure which comes to us in itself; and then, as the result of complex collateral reactions, which have become fixed in us by the processes of development, tends to emphasize all sorts of activities which bring into existence, or continue the existence of, conditions which have part in bringing to us the pleasure, or continuing it in our experience.

The vigorous rejection of pain by the empirical ego in like manner is not adequately explained unless we bear in mind the enormous complexity of our neururgic systems, and of the nature of organic development as we understand it; for we perceive that the painful objective presentation could not appear in attention at all if its neural coincident were not compelled to an emphatic, even if impeded, activity

by the stimulus reaching it. Impeded though it be, the painful object therefore involves a relatively narrow ebullition of activity induced by the object which the system as a whole tends to reject and minimize. But Nature here steps in and as it were says to herself, "pains have become attached in general to processes which are disadvantageous, because the activities coincident with painful presentations tend to desist, and only those individuals which tend not to welcome disadvantageous processes can survive. The organisms which will tend not only to fail to welcome, but to actively reject, pains will on the whole be still better fitted to survive. Now here are certain activities forced upon the system by stimuli, even though the system does not welcome them. As these activities exist for the time being I may well use them for all they are worth to help the organism to cut off the stimuli which are causing the pain, and to minimize the effects of the stimuli if it cannot cut them off." Hence it is that we find the most violent reactions of the system given to the rejection of pain, which we may well describe in Mr. Spencer's words as "a feeling which we seek *to get out* of consciousness, and to *keep out*." It is the Self as explicit in the empirical ego that tends first to minimize the pain; and then to emphasize certain activities which tend to frustrate actions, or to change conditions, which have to do with bringing pain to us, or continuing it.

Sec. 29. When we consider specifically the influence of the Self upon pleasant or upon painful presentations, we find, quite apart from states in which we are self-conscious, some influence from somewhere, and which under our theory is from the Self, emphasizing and welcoming the pleasant, and rejecting the painful. The pleasures seem natural and our own. The pains seem unnatural and intrusive. The Self appears to appropriate the pleasures, it rejects the pains. It is this fact which leads us in our life of thought to the statement of the "problem of pain"; for pain does not seem

to belong to us, and this leads us to inquire why it is with us. But as we have already noted there is no problem of pleasure; no one stops to ask why pleasure is with us, because he appreciates it as his own by right. His Self, his whole psychic system, welcomes and grasps and assimilates it; just as it rejects and fails to assimilate what is painful.

Here again then, when we are not self-conscious, when we are attending only to the pleasures and to the pains as such, we find this influence upon the pleasant and painful presentations from the Self exactly correspondent with the influence which, when we are self-conscious, we recognize as exerted by the empirical ego upon its objects respectively pleasant and painful.

Sec. 30. If what men call "feeling" is the empirical ego not yet explicit we should expect to note that pleasant and painful objects induce diverse phases of this "feeling," which I think will be granted. We should expect also to note, as we do, that what we describe as "feeling" displays a welcoming aspect towards a pleasant presentation and an averseness towards a painful one. We are not surprised furthermore to discover that if we consider these attitudes of "feeling" in themselves we find it very difficult to avoid our reference of them to a distinct empirical ego.

D. The Empirical Ego and the Self as Related with the Time Quality

I. The Effect upon the Empirical Ego and the Self

Sec. 31. In order to complete our survey we must ask whether we find evidence of such a relation between the efficiency of the empirical ego and the time quality of objects, and between the efficiency of the Self and the time quality of presentations, as we would be led to look for if our tentative

theory as to the nature of the time experience as given in Book II. is well grounded.

If our notions are valid it would seem that a presentation which has the quality of pastness, and in that fact under our hypothesis displays a simplification of complexity, should in general show less tendency to arouse a sense of the efficiency of the broad minor psychic system which we call the empirical ego, than a presentation displaying presentness, where no change of complexity occurs; and still less than a presentation displaying the quality of futureness, in consideration of the increase of complexity with which this futureness is related.

Sec. 32. If we are to compare the effects of the differences of time phase upon the empirical ego we must establish an equality of vividness in attention between the presentations whose time qualities are compared. A presentation involving presentness is wont to be too vivid to allow either those which display pastness or futureness to arise in comparison with it: but where such a presentation is less vivid we oftentimes find possible such a comparison as we have spoken of above between the state of an empirical ego in contrast with an object involving presentness, and that of an empirical ego in contrast with an object having the quality of pastness. In such cases I think it is clear to introspection that I, as I consider myself in self-consciousness, am more alert in relation to objects in attention which are appreciated as present than to those which are appreciated as past: and this difference of alertness means a difference in the nature of the empirical ego.

Nevertheless that the empirical ego is necessarily closely bound up with the pastness phase of the objects in attention is clearly shown in the fact that memory is, as we have seen, determined by a recognition of the attachment of the real past presentations to the empirical ego.[1]

[1] Jas. Mill, it will be recalled, held that memory proper includes the representation of one's past self as agent or patient in the event or

Sec. 33. If in like manner we use care to consider cases where there is an equalization of vividness between objects which involve presentness, and those which display futureness, we seem to note that in the latter case (that of futureness) the empirical ego is distinctly more alert, more active, than in the former case (that of presentness); and this we should expect if our theories are correct. This consideration clearly indicates that the time phase of the object effects a difference in the constitution of the empirical ego in these several cases.

Sec. 34. The specific modification of the Self by the pastness, or futureness, or by the absence of both in presentness, of the presentations given to it, can of course be known only from objective evidence. But the man as viewed objectively appears to display, when he is entirely lacking in self-consciousness, just such special modifications of his Self in the presence of presentations which have pastness, or futureness, or which are distinguished as present, as we have noted in his empirical ego when he is clearly self-conscious, and when the pastness, or presentness, or futureness are attached to objects related to this empirical ego.

II. The Effect of the Empirical Ego and of the Self

Sec. 35. When we turn to consider the difference of reaction of the empirical ego upon those of its objects which have pastness, and those which have futureness, and those which involve the notion of presentness, we discover very marked distinctions between this influence in the several cases, of which we have incidentally spoken above.

Objective presentations which have pastness, *i.e.* which

situation recalled. But this would seem to be going too far. All that we can certainly maintain is that memory proper is bound up with this moment's empirical ego. For Dr. James Ward is certainly justified in objecting that whereas "memory is essential to any development of self-consciousness the converse is not at all clear, and would involve us in a needless circle."

under our hypothesis involve a simplifying complexity, are thought of in the main as irrevocable, they appear to float before the mind in a stream for the most part almost uninfluenced by any action of the empirical ego; and this is what we should expect to note if what has been said in the previous section is correct. For the simplification involved with pastness involves a reduction of the hold upon the manifold empirical ego. As soon as the objects are influenced by the empirical ego they are appreciated as having in them something of presentness. We may still speak of them as past, but we feel that we are modifying them for our service in the practical life of the present.

That objective presentations which display what we call presentness appear in our experience as constantly modified by the empirical ego is clear. Those however which are qualified by futureness, those in other words which under our hypothesis involve developing complexity, are, as we should expect them to be, the objects upon which the effect of the empirical ego is most marked. These objects are constantly "budding," to again use Prof. James' term: they are constantly developing new psychic elements upon which the empirical ego may lay hold, and which it may emphasize. This would lead us to expect that clear appreciation of the efficiency of the empirical ego would be bound up with the emphasis of the futureness in the object affected; and that this is a matter of common experience is attested by the fact that in all attention, and in all volition as involving attention, there is a prospective reference, as is agreed by all psychologists.[1] While we appreciate that we are to some extent in control of the present as we are not of the past, we have still greater confidence that the future is far from irrevocable and that to a great extent we may mould it.

Sec. 36. The diverse reactions of the empirical ego upon

[1] Confer Stout, *Analytical Psychology*, i. p. 184. Also Sully, *Human Mind*, vol. i. p. 151. Also Calkins, *Introduction to Psychology*, pp. 300 ff.

its objects which display pastness, or presentness, or futureness, have their exact parallel in the diverse reactions of the Self upon its presentations which display pastness, or presentness, or futureness. This is clear from purely objective evidence, and from such introspective evidence as we are able to gather from comparison of the modifications of non-self-conscious presentations with the modifications of what are recognized to be objects related to the empirical ego in self-consciousness. The man whom we watch, and who is so vividly affected by his presentations that no state of self-consciousness can exist in him, acts upon a presentation which displays pastness, or presentness, or futureness, exactly as he does when we know he is fully self-conscious, and recognizes the diverse actions of his empirical ego, in the several cases, upon its objects which display the corresponding temporal characteristics.

Sec. 37. As we have already seen above, certain very marked special forms are given to presentations in which pastness and futureness are distinctly developed, by the appreciation of their close relation with the empirical ego; an appreciation which transforms familiarity into memory, and anticipation into expectation.

Sec. 38. If what men call "feeling" is of the same nature as the empirical ego, as we have suggested, then we should expect to note, as we certainly do, that "feeling"[1] is aroused less by what we consider past and gone, than by what is here now; and aroused less by what we look upon as present than by what we hope for, or dread, or expect, in the future.

We should also expect to note that the reaction of "feeling," the "feeling attitude" so called, is less marked in relation to pastness than to presentness or futureness; and this is surely the case.

[1] It must again be noted that we do not here refer to emotional states, which are often called feelings.

CHAPTER XXVI

THE MUTABILITY OF THE EMPIRICAL EGO AND OF THE SELF

I. The Mutability of the Empirical Ego

Sec. 1. The reader will recall that in Book I. we have seen that each noetic pattern is new and unique, and that each complex presentation within each noetic pattern is a new and unique presentation; this conclusion not being inconsistent with the fact that in retrospect the representatives of successive presentations may be so closely identified that they are spoken of as "the same." Evidently then if it is true, as we have seen, that the empirical ego is a complex presentation of a special form, it follows that the empirical ego of each moment is a new and unique empirical ego:[1] and this notwithstanding that in retrospect the representatives of successive empirical egos may be so closely identified that they will be spoken of as "the same." This may seem to some reader

[1] The reader, I trust, will not imagine that I overlook the recognition by earlier writers, especially by Hume for instance, of the fact that the ego of self-consciousness is a new and unique existent in each moment; but inasmuch as their teachings in this respect have not been taken with sufficient seriousness, and as our method of approach and our object in entering into this discussion are quite diverse from those of the writers to whom I might refer, the reader will understand why the questions involved are here treated with few references to the work of others.

a hard saying; and it may be well therefore to recall briefly our considerations of Chapter v.

Sec. 2. Considering in the first place the nature of presentations in general we may note with Bosanquet[1] that "each moment of consciousness is full of a given complex of presentation, which passes away and can never be repeated without some difference." And again with Prof. James,[2] that "no state once gone can recur and be identical with what it was before." "Every thought we have of a given fact is, strictly speaking, unique, and only bears a resemblance of kind with our other thoughts of the same fact."[3] I think that all psychologists will agree that these statements are sound:[4] and this means that the emphatic part of each noetic pattern is in all cases new and unique.

Quite apart from introspection it is apparent that this must be true, if it is true that these emphatic parts of noetic patterns correspond with neururgic emphases: for as Prof. James says,[5] "Whilst we think our brain changes, and like the aurora borealis its whole internal equilibrium shifts with every pulse of change. The precise nature of the shifting at a given moment is the product of many factors. . . . But just as one of them certainly is the influence of outward objects on the sense organs during the moment, so is another certainly the very special susceptibility in which the organ has been left at that moment by all it has gone through in the past. Every brain state is partly determined by the nature of this entire past succession. It is out of the question then that any total brain-state should identically recur. Something like it may recur; but to suppose it to recur would be equivalent to the absurd admission that all the states that had intervened between its two appearances had been pure

[1] *Essentials of Logic*, p. 74. [2] *Psychology*, i. p. 230. [3] *Ib.* p. 233.

[4] Confer Shadworth Hodgson, *Metaphysic of Experience*, i. p. 166; and Prof. Royce, *Outlines of Psychology*, p. 199, for similar statements.

[5] *Psychology*, i. p. 234.

nonentities, and that the organ after their passage was exactly what it was before."

Sec. 3. Let us turn now to the more specific consideration of the presented ego.

A. Under the theory here examined each consciousness is a system of mentalities which has as its coincident a system of neural activities which we have agreed to call a neururgic system. Where such a neururgic system becomes complex, it is discovered to be a system of minor neururgic systems, and this system of systems as developed in man is of enormous intricacy. In such a complex system of neururgic systems, minor systems are developed which are more or less completely disparate. These diverse minor systems themselves are more or less complex, and the elements composing them may be more or less differentiable as the grades of activity of these elements vary.

Such diverse minor systems may under certain conditions be called into activity as wholes, usually as the result of systematized stimulations of diverse nature which we may speak of as stimulative systems. The more complex are the stimulative systems and the neural minor systems which are called upon to react thereto, the less probable will it be that any one complex minor neururgic system as a whole will be persistently and continuously aroused to emphatic activity. It is true that, if the general conditions of stimulation are relatively stable, what is practically one specific minor neururgic system, which changes little, may be, and will be likely to be, persistently called as a whole into activity. But this cannot be thought of as being in two successive moments exactly the same minor neururgic system unmodified, if the stimulative system varies in these two moments as it usually does, nor even if the stimulative system does not appear to vary; for in this latter case the effects of reaction in one moment must result in modifications within the neururgic system of the next moment even though the stimulative

system be practically unaltered. If the two neururgic systems of two successive moments appear to be the same it is not because they really are exactly the same, but because they appear in reflection to be but slightly diverse.

a. Now under our hypothesis the empirical ego of any moment is conceived of as the psychic coincident of such a highly complex minor neururgic system as we have been above describing,—a minor neururgic system within a vast system of neururgic systems,—which is emphasized as a whole because the elementary parts of the minor system are in themselves so well coordinated that the system cannot be raised into prominence except as an undifferentiable whole.

It appears therefore that an empirical ego may be practically unchanged from moment to moment; and may in reflection appear to be persistent as unchanged in successive moments provided the stimulative system which arouses it does not change in any important particular in these successive moments. This is the condition of the ordinary experience of man as he views in retrospect his successive empirical egos of states of self-consciousness.

But it is equally clear that this appearance of lack of change must be an illusion. For in the first place the empirical ego cannot remain unchanged from moment to moment if the nature of the stimulative system which leads to its emphasis changes in two successive moments, as it necessarily does in some particulars, and usually does in some noticeable degree. And in the second place even if the stimulative system is conceived to remain the same from moment to moment, which can seldom be the case, the neururgic system with which the empirical ego corresponds cannot be conceived to remain unmodified if it is affected by successive stimulations.

In other words the empirical ego, being the psychic coincident of an undifferentiable mass of nervous activities which is emphasized *as a whole*, must vary from moment to moment just as these nervous activities vary from moment

to moment:—and as these activities must be of new and unique form in each successive moment, so the empirical ego must in each successive moment be a new and unique empirical ego.

Sec. 4. It may be well perhaps to present the facts before us in terms of symbols similar to those used in a previous chapter (Chapter III.) according to which the whole complex state of self-consciousness may be represented by Fig. 9 below,

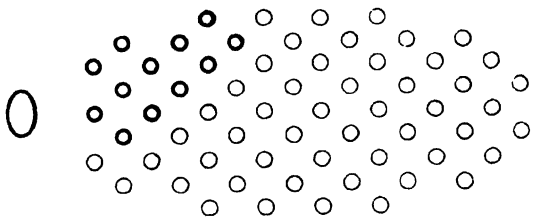

FIG. 9.

in which the undarkened small o's as a whole represent the non-presentable Self; in which the large O represents the object contrasted with the empirical ego; while this empirical ego is represented by the group of darkened small o's as in Fig. 10.

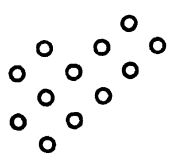

FIG. 10.

Evidently if Fig. 10 represents the presentation which we call the empirical ego, it will be differentiated if any one of the psychic elements within it is properly reduced in emphasis, and this would be represented by replacing one of the

darkened small o's in Fig. 9 by a light small o: this meaning that the particular psychic element in question had lost its position as a partial presentation, and had become part of the non-presentable Self. In an opposite manner the empirical ego represented in Fig. 10 will be differentiated if any one of the closely related psychic elements within the non-presentable Self is sufficiently increased in emphasis; and this would be represented by replacing one of the light small o's in Fig. 9 by a darkened small o.

We might thus find the state of self-consciousness symbolized, not as in Fig. 9, but as in Fig. 11 below,

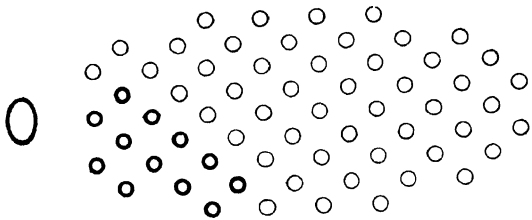

FIG. 11.

in which case the empirical ego would be symbolized, not as in Fig. 10, but as in Fig. 12 below.

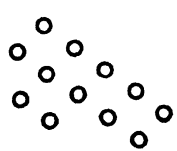

FIG. 12.

Here the differences in the two states of self-consciousness would not lie in the object O as related to either empirical ego, but in the nature of the empirical egos symbolized by Figs. 10 and 12.

It might well be that the diverse empirical egos thus considered might have elements which in reflection appear to be identical, as certain of the darkened o's in Figs. 10 and 12 are common to both symbols. Thus we may represent the identities which in reflection lead us to think of what we may speak of as an empirical ego continuum.

Sec. 5. When one turns to introspection for evidence of this mutability of the empirical ego he is likely at first to question the truth of the statement, for if there is any one thing that seems clear to the plain man, and to us in our usual moods, it is that our every day selves are persistent enduring entities.

It appears evident however upon further consideration that there are morbid cases in which a mutability of egohood is clearly evidenced; and if we study these cases we find them shading off into others which appear more nearly normal, until finally we become convinced that our own empirical egos are not so fully stable as we are wont to imagine them. In this connection we may well turn our thought again for a moment to the consideration of the hypothetical neururgic basis of the presented empirical egos.

Sec. 6. A. The active nervous system as we have seen is composed of more or less closely related, and more or less complex, systems of minor neururgic systems, some of which act as unified wholes when stimulated by what we have spoken of as unified stimulative systems.

So great is the complexity of the nervous system that two or more diverse neururgic minor systems of this type may be simultaneously stimulated to activity as wholes by one and the same complex stimulation; and then these diverse minor systems will contend with one another for dominance. Under such conditions although at any one moment one of these minor systems will tend to become predominant, yet the predominance may rapidly shift from one to another minor system, and we may have before us an appearance of two or

more predominant minor neururgic systems co-existing within the same great system of systems.

Usually however noticeable variation of stimulative conditions will be needed to call into prominence the disparate minor neururgic systems; and in such cases the shifting from the predominance of the one to the predominance of the other will be less rapid, so that we may often be able to note the predominance of one minor system at one time and under one set of conditions, and of another minor system at another time and under another set of conditions.

a. Now under our hypothesis any special empirical ego when it appears as a presentation is the correspondent of such a complex system of undifferentiable neururgic parts which is emphasized as a whole: and if this is true then to such diverse, and more or less exclusive, minor neururgic systems as we have above described there should correspond diverse empirical egos. And if we are justified in our contentions we should be able to recognize in every day life the diversity of these empirical egos; although in certain cases it might be expected that this diversity would be overlooked and scarcely noticeable even under careful introspection. At times however diverse empirical egos might be expected to appear to contend for mastery; while at other times where the minor systems involved are altogether lacking in common elements, they might be expected to appear as thoroughly diverse and disparate and entirely separated from one another.

What we have just said may become clearer if we refer again to the symbolization given in Sec. 4; according to which it would appear that in many cases these diverse empirical egos might so far overlap, *i.e.* might have so many common elements, that when considered together in reflection their differences might be overlooked (as represented in Figs. 9 and 11 above). And furthermore if this diversity were marked, yet not complete, more than one empirical ego might appear in experience at one and the same moment. This

would be symbolized by something like a combination of Figs. 9 and 11 as in Fig. 13 below.

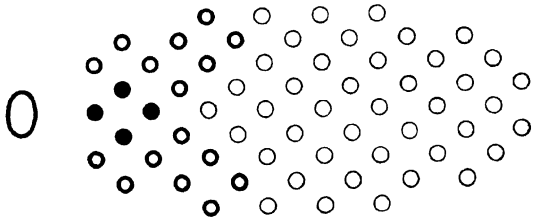

FIG. 13.

Beyond this it would appear that in other cases these diverse empirical egos might be so far disassociated as to appear quite diverse in reflection. And again if this diversity between the empirical egos were very marked, and so complete that the complex minor psychic systems involved were quite disassociated, then it might well be that the object contrasted with the one empirical ego could never appear as a revival in the field of attention when the other empirical ego became prominent in attention.

Sec. 7. When we ask ourselves whether such empirical egos are observable in our experience objective and introspective, we find it well to consider the cases referred to in the preceding section in reverse order, for evidently the empirical egos which are most diverse in their characteristics, if such exist, will be most readily noted by us in introspection and by objective signs.

We are here evidently led to the consideration of the phenomena of multiple personality, which have been made so familiar to the reader by modern psychiatrists, and which receive so clear an elucidation in, or at all events in an extension of, the "disaggregation" theory of Prof. Pierre Janet, and especially in the "dissociation" theory of Morton Prince

and Boris Sidis, with which on the whole the positions here maintained are in full accord.

In what follows I shall ask the reader to note, not only that psychologists very generally explicitly or implicitly make the assumption of the existence of a multiplicity of empirical egos in connection with the activities of one human individual, but also that the common man in every day life implicitly makes this very same assumption.

Cases of recognized "double personality" have become thoroughly familiar to the psychologist during the past twenty years; but nothing more convincing has been given to the world than the case of Miss Beauchamp studied in detail by Dr. Morton Prince in his "Dissociation of a Personality"; a work which is of the utmost importance in this field; and in which we deal, not with a mere doubleness of empirical egohood, but with multiple egohood: for all the diverse personalities that from time to time inhabit, so to speak, the body of the patient are thoroughly self-conscious, and are able to consider their nature and in a measure their relations with one another. Recognized double personalities, like that of Ansel Bourne mentioned by Prof. James in his *Psychology*, are perhaps more generally familiar: cases where the disjunction is so complete that the two personalities are entirely unacquainted with one another; a situation which must be looked for if the general positions explained in this work are well taken. For it is clear that presentations that are utterly diverse cannot be subject to recall by the processes which are ordinarily described as associative: and therefore if empirical egos of an utterly diverse nature, being diverse presentations, do exist at different times in connection with the activities of one and the same human body, it will be impossible for the empirical ego of one moment to be recalled in the form necessary for comparison with the utterly diverse empirical ego of another moment, the noetic patterns in which the two empirical egos appear being utterly diverse. If

therefore such utterly diverse empirical egos exist in one and the same individual man they will not be discovered by his introspective differentiation of them, but inferred only from purely objective evidence.

But we do find objective evidence of the existence of just such diverse empirical egos in connection with the activities of the same human individual, who himself fails to recognize them introspectively, in the cases here referred to, which are observed not uncommonly in the insane, and at times in those who are ordinarily sane but who are under conditions of temporary mental derangement, and not infrequently in hysterical patients, and with practical invariability in those who are hypnotized. Here we have evidence of the existence of diverse personalities at different times, each of which is described by the patient at the time of its existence exactly as each of two different men would portray his own empirical ego of the moment.

Examples to illustrate this are perhaps unnecessary, but as typical we may refer to the cases of those who are subjected to the hypnotic trance. The hypnotic patient may be fully self-conscious, *i.e.* the empirical ego may be distinctly developed in his field of attention, as is evidenced by questioning him when in this abnormal state. He then however is often unable to recall the episodes of his normal life; that is it is impossible to associate with the empirical ego of the abnormal moment occurrences which would associate easily with the empirical ego of normal life. When he awakens to normal life he in like manner is often unable to recall the episodes of the hypnotic trance; that is it is then impossible to associate with the empirical ego of the normal moment occurrences which naturally associate themselves with the empirical ego of the hypnotic trance.

Those who are familiar with the literature of trance phenomena, and of morbid mental life, will realize however, that such cases of complete disjunction are relatively rare. In a

large proportion of cases there is sufficient bond between the two diverse psychic systems to allow of some association between the two empirical egos. The empirical ego of one moment recalls something of the experience of the other; and in a measure the empirical ego of the one state accepts the empirical ego of the other state as being more or less closely related to it, as is seen in the fact that suggestions made in one state are acted upon in the other.[1]

Sec. 8. We have thus stepped gradually to the ordinary conditions of self-consciousness: for a little thought will convince us that in normal life we are often able to recognize diversities of the empirical egos of separate moments, which at times are so disparate as to compel our attention to the disparateness, but which in the majority of cases are felt to be

[1] It must be apparent to the reader that the acceptance of the existence of multiple empirical egos, in connection with the activities of what we look upon as one human individual, enables us to explain in terms of normal psychic activities a very large proportion of those phenomena which have been collected by the Society for Psychical Research. If in our every day life we experience different, yet closely allied, empirical egos which fuse together so completely that we do not stop to consider their differences; what wonder that we are startled by a shifting of our thought from one empirical egohood of a form with which we are familiar. to another which is of very diverse form and unfamiliar to us;—what wonder that we are at times tempted to believe that the expressions of the empirical ego of unfamiliar form are the expressions of other individuals than those we are accustomed to call ourselves.

Nor is it surprising to us, with our knowledge of the complex processes of organic development, that these empirical egos of unusual type should appear at times as survivals of conditions of existence long since passed away. They may be like the empirical egos of men of low development, of rudimentary morality. They may be dwarfed, or deformed, or even mutilated, personalities so diverse from our normal empirical egos that we are unwilling to believe we are not temporarily "possessed," by devils, if the distinction is very marked between the empirical ego which we for the moment experience and our normal empirical egos; or by the "spirits" of men whom we have known but who have died, when the distinction is less marked.

so far alike in their nature that we are commonly led to think of them as identical and the same. In fact I think the reader will find, as I find, not so much evidence of his body being dominated by dual, as of it being dominated by multiple personalities at different times. I am one person when I direct the conduct of constructional works; quite another when in church I listen to a dogmatic sermon. I am still another personality when I converse with deeply loved friends; quite another when I discuss philosophical problems; quite another when I am in the fields playing golf.

These examples might be multiplied indefinitely were it worth while. The personalities differ in greater or less degree. In some cases it is not difficult to pass from one to the other; in other cases it requires a real "wrench" to pass from the state where the one personality is dominant to the state where the other is dominant. In extreme cases, as we have seen, the personalities are so divergent that the associations attached to the one empirical ego cannot be attached to the other, and we find that the one personality is utterly unable to recall the experiences which have been closely and intimately attached to the other. Those who have read thus far in this book will be ready to believe that it would be natural for me as a psychological personality, and in my ordinary social life, to drop anything I happened to be at work upon to meet and greet Prof. Wm. James if he were announced. Yet one morning in my studio, when I was immersed in business affairs, one of my clerks came to me and said "a Mr. James is in the outer office and asks to see you." I said to myself "who can that be?" and then to my clerk "ask him to sit down and wait for a few moments," and proceeded calmly for some little time with the dictation of a letter I had begun. When presently I went to the outer office I found to my chagrin that I had kept waiting a man whose friendship I highly cherish. To my architectural empirical ego the word James meant nothing at all; while to my

psychological empirical ego it meant the quick response of a friend and admirer.

Sec. 9. The multiplicity of the empirical egos which we commonly hold to be one and the same personality is also clearly brought into view when we consider the empirical egos of far separated times in the lives of perfectly normal men. When we say that the empirical ego of an hour ago and of this moment are the same, we are making a comparison of two empirical egos one of which is bound up with what we call the past, the other of which is in the "specious present." Where the past empirical ego is one lately experienced, say an hour ago, we seldom note much difference between the two that are compared. Where the past empirical ego is one of last year we note some difference, where it is one of ten or twenty years ago a marked difference. And when we reach mature years, and look back to the years of our youth or childhood, it must appear evident to any candid mind that the empirical ego of those joyous days of light heartedness was quite a different entity from the empirical ego of the present moment with which we compare it. "There are many regions of thought," says Lotze,[1] "in which while young we were quite at home, which in age we can only bring before our minds as alien phenomena; feelings in which we once revelled with enthusiasm we can now hardly recover at all, we can now hardly realize even a pale reflection of the power which they once exercised over us; endeavors which once seemed to constitute the most inalienable essence of our ego seem, when we reach

[1] *Microcosmus*, p. 687. Hamilton and Jones' translation. Lotze is led by these observations to go so far as to proclaim that "in point of fact we have little ground for speaking of the personality of finite things; it is an ideal which like all that is ideal, belongs unconditionally only to the Infinite, but like all that is good appertains to us only conditionally and hence imperfectly." I for one cannot thus deny to myself the right to speak of my personality, and I think myself justified in proclaiming its real existence, if only I agree that it is my name for an ever varying and constantly developing succession of empirical egos.

the path along which later life conducts us, to be unintelligible aberrations, the incentive to which we can no longer understand."

Sec. 10. If it is true, as we argue, that at each of two successive moments the empirical ego is new; it is easy to account for the fact, to which we have been referring, that we are able to recognize the multiplicity of our personalities in an objective study. But if this view is warranted we surely ought to be able to observe this multiplicity of empirical egos also to some extent in our introspective life; not only as closely succeeding one another, as appears in the comparison of the empirical egos of the past and present referred to in the last section; but also at times as co-existent.

Some little time ago I had an experience, which I think may probably be repeated upon occasion by many among my readers, in which the recognition of a co-existent doubleness of personality (*i.e.* of empirical egohood) was clearly distinguished in the course of my appreciation of the experience itself, of which I made careful note at the time.

I sat reading in an American railway carriage with my feet crossed so that one foot projected into the aisle. Presently my head nodded, my weary eyes closed, and my fellow passengers, if they noticed me at all, probably thought I was fast asleep. As a matter of fact only part of me was asleep, for I found myself thinking somewhat as follows: "This is very restful, it will be delightful to have a nap; but I have my foot out in the aisle where the first passer-by will surely strike it and waken me up." Here the empirical ego described as *I* was thinking of the sleeping empirical ego described as *me*.

Now under normal conditions I should have dropped soon into so profound a sleep that I should not have been able to recall any of this train of thought when I awakened. If aroused to full consciousness by the guard striking my foot, I should have merely changed my position and settled myself again to sleep. But as it happened the *I* remained sufficiently

active to carry on the following train of thought. "It will be a pity to be (to have my *me*) awakened by the guard: *I* wish my foot were not stretched out into the aisle. If *I* move my foot out of the aisle the movement may possibly waken *me*. If it remains where it is the guard will almost certainly awaken *me*. Will it be better to run the risk of moving my foot voluntarily, (that is will it be better to run the risk of the *I* in moving the foot awakening the *me*), or shall *I* let it remain and allow *myself* to be awakened by the guard? *I* will run the risk of moving the foot hoping that in so doing I may not wake up; (*i.e.* hoping that in so doing the movements resulting from the efficiency of the *I* may not awaken the *me*.)"

But as a matter of fact the movement accredited to the *I* did awaken the *me*: and being interested in introspection I promptly pulled out a sheet of paper and jotted down the notes which form the basis of the above paragraphs. Had the *I* not moved the foot, the sleep would probably have become more pervasive and "sounder" as we say, and all relation between the empirical ego of that half-asleep state would have been lost to the disparate wide awake empirical ego of the moment when I would have been awakened by the guard stumbling over my extended foot, and all record of it would have been thus lost just because of the utter disparateness of the two empirical egos which had been involved.

The case above described exemplifies very clearly the introspective recognition in the same moment of two diverse empirical egos. But a little consideration will I think convince the reader that closely allied recognitions of doubleness of empirical egohood are made most constantly in his every day life; for in fact he acknowledges such doubleness of personality whenever he compares, as he so commonly does, the impulses followed in his actions of a certain past moment of his life, with those which he wishes he could believe he had followed: that is when he thinks of the "self" that acted (meaning the empirical ego), as quite diverse from what he is

wont to call his "better self," or his "true self." It must of course be acknowledged that the ordinary man does not easily lay hold of the distinction upon which this common acceptance of the "true self" or "better self" is based, for reasons connected with the urgency of practical life to be spoken of below: but it is clear to my mind that he does experience the differences which must be involved if the empirical ego is of the nature which we claim for it, even though he fail to interpret them correctly.

We have a peculiar instance of this discrimination, in the reprobation of attempts at suicide, which in some States are treated as criminal offences, just as if the man who had attempted to take his life had attacked an entirely different individual than himself.

It seems highly probable that the child often naturally notes the distinction between the several empirical egos of experience, and often naïvely refers them to diverse individuals, only gradually learning to think of them as referring to one and the same individual which he comes to call his self: among my notes I find a record of very strong evidence that my daughter of seven years exhibited a distinct tendency to think of her little sinful acts of her past as having been performed by quite another person than herself. But evidently even if this tendency to observe differences of empirical egohood were usual in early youth it would be one which would be rapidly lost with maturing years: for the empirical egos of immediately successive moments must usually have relatively few elements of marked differentiation, and must tend to fuse with one another. Those cases where they do not fuse are the only ones a man can hope to differentiate; and the developing man must soon learn by experience in practical life to act as though even his more distinctly differentiated empirical egos were really connected with the activities of himself as one and the same individual: he could not live an effective life unless he did learn to make this

judgment and became thoroughly convinced of its correctness. It is natural therefore that we find fixed most firmly in our minds the notion of what we call our personal identity. We learn to believe that all our varied empirical egos, however much they are differentiated, are in some manner or other really one and the same empirical ego.

II. The Mutability of the Self

Sec. 11. Under our view the Self of an individual in any moment is all the rest of the consciousness of the individual other than the marked emphasis within it. At any moment each consciousness displays a noetic pattern consisting of the noetic emphasis or field of attention, and of the Self or field of inattention: and correspondingly the man's nervous system as a whole displays a neururgic pattern, which consists of the neururgic emphasis and the neururgic background against which this emphasis appears contrasted.

Now we have already seen that the neururgic situation of an individual man must be new and unique in each successive moment. And if this is true of the whole neururgic pattern of any moment it is true also of its parts; *i.e.* it is true not only of the neururgic emphasis, but also of the broad undifferentiable unemphatic neururgic mass against which the emphasis stands contrasted. And the broad neururgic mass must therefore be held to display in each moment a new and unique neururgic form.

In like manner we have seen that the noetic situation in any given consciousness must in each moment be new and unique. And if this is true of each noetic pattern as a whole then it is true also of its parts. If this is true of that part of the whole noetic pattern which we call the field of attention, as we have above seen is acknowledged to be the case; then it must be true also of that part which we call the field of inattention,

unless we deny that the field of attention and the field of inattention are fundamentally of the same nature.

We are led thus to hold that in each moment the field of inattention is a new and unique thing. And, if we assume that the field of inattention and the Self are the same and identical, as we are here contending, then we are necessarily led to hold that the Self of each moment is unique: that no Self "once gone can ever recur and be identical with what it was before:" that the Self of any individual man, in each moment, is a new and unique Self. It seems impossible to avoid this conclusion without denying the truth of the neurological and psychological statements above made, which are very generally accepted as valid; nor without showing that the various positions here referred to as maintained in the previous chapters are invalid.

Sec. 12. When we ask ourselves whether it is possible to adduce evidence in favor of this purely theoretical position we find ourselves again face to face with the difficulty that we have no means of learning by direct introspective observation what our Selves are like; for the ego of introspection turns out to be merely a presentation of a special type. As the result of an indirect mode of reasoning, however, we have come to believe the empirical ego to be a simulacrum of the Self; and this leads us to hold that we can indirectly judge of the nature of the Self of which this empirical ego is a verisimilitude. But we have seen that we discover in introspection that the empirical ego of each moment is new and unique, and we are therefore led to hold that the Self of which it is a simulacrum must in each moment be new and unique.

We also recall our observation that a man's character as objectively viewed corresponds with the whole of the man's consciousness; and that this consciousness is inclusive of his Self which is unpresented.

When we judge thus objectively of the nature of other

men's Selves we are especially struck by what we call their individuality, *i.e.* by the fact that no two of them are ever exactly alike; and we are all ready to agree that in any one moment chosen for consideration the Self of each of all the individual men under observation is a unique Self. But when we come to study the matter more closely we note that just such differences as appear in different individuals, and which lead us to hold each of them to be an unique Self, appear also in one and the same individual at different moments. If we have judged correctly in the first case we should therefore be led to say that a man who displays such differences in two successive moments has different Selves in the two moments.

When we consider such cases as that of Miss Beauchamp referred to above, we note that in a large proportion of the observations of Dr. Prince he was judging of the woman's Self of the moment. At times to be sure she was self-conscious and appreciative of the existence of her empirical ego, but in the main her varied Selves were judged of by reference to her changes of character.

But we may turn from the abnormal to the normal, and if I may be allowed the privilege may consider the evidence in connection with an ordinary man like myself. When in the routine of life I reach my business office of a morning, my character, as it would appear to an observer who judged solely from the nature of my reactions, would seem quite as diverse from the character of the man who writes these words during the quiet of a country visit, as could be the case were the two characters observed in different individual human bodies. But for the fact that the outward appearance and certain mannerisms of the person in the architect's office, and of the person in the country library, are the same, it would never occur to an observer of the two that the characters, as inclusive of the Selves, were those of one and the same personality. The architect deals almost exclusively with concrete objects;

finding himself constantly called upon to render prompt decisions; busied with considerations of design; aiming to produce works of beauty; actively engaged through the instrumentality of his own pencil, or through the direction of his assistants, in the preparation of the drawings which are the effective tools of his guild. The psychologist on the other hand deals with generalizations of a broad nature; with introspective observations which are as far as possible removed from the every day objects in the outer world; he deliberates long before reaching conclusions, being often content to hold in abeyance decision as to the validity of conflicting notions; he searches after truth rather than beauty, and aims at schematic arrangement and logical results: he is slow of thought, and deliberate in action in the preparation of what he merely hopes may some day stimulate the thought of others who like himself search for truth in a very special field.

It may be claimed that I am an abnormal person, that it is unusual for a man to have such very fully developed diverse interests as those which engage my thoughts, and that it is relatively rare to find any one man of such diversities of characters as I have been above describing; but I believe this is not nearly so unusual as it at first sight appears. The closer we observe our fellow men the more clear seems the correspondence between such Selves as we consider unique when given in any one moment in different individuals, and the Selves which are judged to exist in successive moments in one and the same individual: and were there no evidence other than this, it alone should lead us to see the strength of the hypothesis that each Self, of each man, in each moment, is a new and unique Self.

Sec. 13. It is of course Self-evident that if it prove true, as Dr. Morton Prince's experiments above referred to seem to imply,[1] that thoroughly systematized diverse consciousnesses

[1] Confer also chapter vi.

can co-exist in relation with the body of one individual, as "co-consciousnesses" to use Dr. Prince's phrase, then diverse empirical egos, and diverse Selves, must co-exist as co-ego's and co-Selves, if we may so speak.

III. Corroborative Evidence

Sec. 14. When we recur to the considerations set forth in Chapters XXIV. and XXVI. above, we perceive that we have there actually assumed the mutability of the empirical ego and of the Self without any appearance of contradiction of experience. The relations between the empirical ego and its objects, and those between the Self and it presentations, treated of in Chapter XXIV., have everywhere indicated a reciprocity of efficiency; and evidence has there been constantly forced upon us that the nature of objects given from time to time to the same individual is changed because at different moments the empirical ego is diverse in its nature; and in like manner that the form of presentations to the Self is altered from moment to moment because the Self changes. And again in Chapter XXV. we have seen that the emphasis of the general qualities of objects and presentations changes the nature of the empirical egos and Selves respectively; even as the varying nature of these empirical egos and Selves changes the emphasis of the general qualities in the objects and presentations respectively.

Sec. 15. But had we been led to this result by no other considerations we might properly have concluded that each empirical ego is unique, and each Self unique, from the well recognized fact that both are subject to development. As the reader will recall, we have already seen reason to hold that the neururgic modifications which are involved in what we call "learning by experience" are not of occasional, but of universal occurrence throughout the organic world: it is

difficult to understand the basis of organic development unless we acknowledge this general principle. And if organic development involves this principle it should also be traceable in the psychic coincidents of this organic development.

If then we discover any process of development in the empirical ego it must be because it is subject to this universal process of being affected by experience, and because it is in each successive moment a different entity. That each individual's empirical ego is a thing which has in the past developed, and which is constantly developing during life, is a fact that we need not stop here to illustrate, for it must seem evident to any one of mature years that his ego of self-conscious states is a much more complex and fuller experience than that of his youth as he is able to recall it.

And surely the same is true of a man's Self, if its nature from youth to age may be judged by his objectively observed character. That the character of a man changes as he developes from childhood to youth, from youth to maturity, from maturity to old age, will not be questioned; and this means that not only his experienced ego but also his Self has correspondingly changed. While these changes in some persons appear to be momentous and sudden at certain exceptional periods, it will be generally agreed that for the most part they are exceedingly gradual; so gradual indeed that a man is often surprised, in looking back upon the years past, to find how much his character has altered without any recognition of the changes which have been going on.

If then we are once led to acknowledge that such gradual changes do occur it is most natural surely to assume that they are the result of a continuous process; and this again carries with it the view not only that each man's empirical ego, but also that each man's Self, of each moment is new and unique.

IV. Of Personal Identity

Sec. 16. It would seem needless to dwell, as we have done, upon the evidence in favor of the view here discussed, were it not for the fact that it is repulsive to the average man, and this largely because he is very generally accustomed in his daily conversation to make the explicit assumption that his empirical ego and his Self are unalterable and persistent entities; and in fact upon this notion, as we shall see in Chapter xxvii., he bases certain of his most cherished conceptions and doctrines. I am referring here of course to our conception and experience of what is called "personal identity."

Of the concept of personal identity so far as it relates to metaphysical positions we have not a word to say, except that it actually implies the existence of variable experienced empirical egos in its assumption that a certain core or essence which is the true and real Self remains unperturbed through all these variations. Why metaphysicians persist in speaking of what are acknowledgedly shifting attachments to this postulated core or essence, as part and parcel of our every day egos or Selves, as do those who uphold this widely accepted dogma, is a question the mere psychologist cannot be expected to comprehend.

But apart from this and kindred questions we may lay aside all considerations of this nature for the simple reason that we are concerned to deal with the egos of experience, and with Selves as parts of consciousness in the moments of their existence.

It may be noted however in the interest of clearness that no concept of the Self can be the real Self; for being a concept it must be a presentation to this true Self which is non-presentable. Nor is it in the mind of the ordinary man a concept which relates to the existence of a true Self that is not given as a presentation: rather is it for him a concept which relates

to the succession of empirical egos, with which as presentations in attention he is familiar.

Sec. 17. The objector to the position we maintain may claim that his opposition is warranted just because introspection tells us that our own successive experiences of the Self are the same: even though it be agreed that in these successive experiences there are differences of superficial attributes, he is likely to persist in holding that these attributes cling to an experienced unchangeable core, which is the true Self. He will tell us, to use the words of Miss Calkins,[1] that "the self is . . . in some degree permanent and persistent."

Yet it is clear that this fact does not substantiate his position, for evidently we are here dealing with the appreciated empirical ego. As Miss Calkins goes on to say, "by persistence is not meant the ultimate self identity which may well be part of the Self as conceived by the philosopher, but rather the kind of identity of which one is immediately conscious, notably in anticipating and recognizing." And when we note this then we are led to see that when any man claims that he appreciates the persistence of an empirical ego he is making a comparison: that he is recalling two successive empirical egos, and noting in connection with these revivals the attendant "likeness sense of relation" which leads him to call them "the same."

But as we have noted in Chapter v. we can never make a judgment that two mental items are very much alike, or even are "the same," unless in some measure they differ. Were they identically the same the revivals would be fused into one, and no ground for comparison would exist. As we have seen in the chapter above referred to, while it is true that comparison cannot exist except where there exist identities within the partial presentations compared, these identities are *within the experience of comparison*, and do not necessarily imply an identity inherent in the original elements which we speak

[1] *Journal of Philosophy*, etc. v. 3, p. 65.

of as the same. As Prof. James[1] well says "The sense of our personal identity, . . . is exactly like any one of our other perceptions of sameness among phenomena. It is a conclusion grounded either on the resemblance in a fundamental respect, or on the continuity before the mind of the phenomena compared"; the phenomena compared in this case being separate, but closely allied, empirical egos. "Where the resemblance and continuity are no longer felt, the sense of personality goes too." . . . "Resemblance among the parts" (in this instance the differentiated empirical egos), "of a continuance of feelings (especially bodily feelings) experienced along with things widely different in all other regards, thus constitutes the real and verifiable 'personal identity' that we feel." Or as Locke[2] long ago said, "whatever has the consciousness of present and past actions is the same person to whom they both belong;" a statement which Prof. James[3] has picturesquely paraphrased in saying that this personal identity experience "is just your chain of particular memories." But, as we have seen in Chapter XIX., the fact that memory exists does not imply any persistent unalterable condition of a somewhat which remembers; and so we have a final break down of the argument from the experience of personal identity in opposition to the notion that each empirical ego is new and unique.

Sec. 18. When we turn to the consideration of the Self we see that the experience of "personal identity," relating as it does to the empirical ego, cannot relate to the Self: and if this is true this experience presents no objection whatever

[1] *Psychology*, vol. i. p. 334 ff. [2] *Essay*, chap. xxvii. sec. 16.

[3] *Varieties of Religious Experience*, p. 443. Confer J. S. Mill's note to Jas. Mill's *Analysis*, chap. v. p. 228. "The notion of a Self is, I apprehend, a consequence of Memory. There is no meaning in the word Ego or I, unless the I of to-day is also the I of yesterday; a permanent element which abides through a succession of feelings, and connects the feeling of each moment with the remembrance of previous feelings."

to the view that the non-presentable Self of each moment is new and unique.

As psychologists we realize that when consciousness is viewed in retrospect successive presentations appear to develope one from the other, so that we come to recognize the existence of what Dr. Ward calls the "presentation continuum," notwithstanding that, as we are convinced, each specific presentation must be new and unique. So also we have no difficulty in holding that as the Self is part of conscious experience, and is fundamentally of the same nature as the presentations to the Self; so although each moment's Self is new and unique, nevertheless each Self developes as it were from the Self of the preceding moment. And in reflection we may well conceive of a Self as a whole which will appear as a continuum; a continuum in which the psychic elements are never identically recurrent, although their differences cannot be noted even objectively, inasmuch as the elements themselves are undifferentiable.

The repulsion which we are likely to feel to the doctrine here maintained is largely due to the attribute of instability,—of unrealness,—which thus becomes attached to the notion of the Self, which most of us have come to feel is of all conceptions the most real.[1] Those who have studied the nature of realness with us in previous chapters must see however that none of the realness which is properly attachable to the Self is lost as a result of this view; and that the exemplification of the true nature of, and the practical value of, this attribute of realness in connection with the Self goes far to answer the objections to the doctrine of the relativity of realness upheld in previous chapters.

[1] Confer Bradley, *Appearance and Reality*, chapters ix. and x.

CHAPTER XXVII

COROLLARIES

I

A

Sec. 1. It will be conceded I think that the average man's conception of his responsibility for his acts in the past is very clearly bound up with the notion that his true Self is something which is permanent; which was the active agent in the performance of a deed which he recalls in memory; and which, as now again capable of action, must bear the burden of guilt if that past action was culpable, or enjoy the meed of satisfaction and of reward if it was praiseworthy. In other words the common conception of responsibility relates to the experiential Self, and involves the notion of the continuing persistence of this Self during life.

But we have seen in the preceding chapter that our studies lead us to the conclusion that the Self is always a new and unique Self, and we are at once led to see that if this is true we are forced to search for some rational ground for this conception of responsibility which has been based upon the notion of a persistent Self; for it is not clear that we are justified in holding that this new and unique Self of mine, as it exists in this present moment, is culpable or worthy of praise, as the case may be, for the act which I ascribe to the efficiency of my Self in a past moment: for, under our hypothesis, the Self which was involved in the act of the past is not the Self

which now exists; and in connection with the actions of my individual body in the past there seems at first sight no more clear reason for praising or blaming this new Self of mine, than for praising or blaming any other new Self existing in this present moment in any other individual man than myself.

As this question of man's responsibility is of the deepest moment in relation to his moral life, and of the greatest practical importance in relation to his development, the questions above raised evidently demand very careful consideration; and it will be worth our while to begin our study of them by an attempt to analyse the notion of responsibility itself, and to consider the basis of its validity, and how far this validity is dependent upon the notion of the permanence of the Self with which it is usually so closely interwoven.

Sec. 2. *a.* It seems clear in the first place that this subject may be looked upon from two entirely different points of view. If in the first place we could study mankind in a thoroughly objective manner, as we study the activities of the insects, for example; that is, if we could consider man's life from the standpoint which might be maintained by a non-human "spirit" unaware of man's conscious states; we should then observe men capturing an individual in the act of committing what we call a crime, and treating him in a certain manner; and we should observe in other cases the same body of men treating another individual man in practically the same manner long after the commission of the same kind of crime, and when the criminal appeared to be perfectly passive and harmless. We might for instance see a man killed by a constable who happened to catch him in the act of murdering his wife: but we should also observe certain cases where the murderer is killed by hanging because he had been seen to murder his wife long before the execution, and notwithstanding that at the time of his hanging he appears to be a perfectly quiet and well mannered member of society. We should see a thief, who was caught stealing some one's watch, compelled

to hand it back to the owner; but in other cases we should see learned judges and lawyers joining forces in the civil courts to compel a man A to restore property to another man B when it became evident that, if A had improperly appropriated the property of B, he had done so, not at an immediately preceding moment, but years and years before. These observations, could we maintain this ultra objective attitude of mind, would be made without any consideration whatever of the conscious states of the men who were active in the several cases: and we should conclude that the individual man of today, although now perfectly harmless, is held responsible for the acts of his individual body in previous days or months or years.

β. But we, as men, are forced to consider this question of responsibility also from a subjective point of view; we are unable to avoid noting the sense of guilt and remorse we experience in connection with evil deeds which we recall in the active life of our own individual bodies in days that are past; and unable to avoid taking satisfaction in good deeds which we in like manner attach to our own individual bodies as they existed in the past.

It will be desirable to consider this subject more at length from these two points of view; to ask ourselves in the first place, whether it is rational, from an objective standpoint, to hold a given individual responsible today for the deeds of his individual body in the past, now that we have come to realize that the man's Self today is a different Self from that which in the past led him to his culpable deeds; and then to ask ourselves whether it is rational, from a subjective standpoint, to allow ourselves to be burdened by remorse for deeds of the past, when we know that our present Selves are new and unique Selves, and not the Selves that voluntarily committed those deeds which we recall with regret.

Sec. 3. Before taking up this study from the objective point of view it may be well to forestall criticism in one

direction. It may be claimed by some that the maintenance of such a purely objective attitude as we suggest is impossible; for it may be held that we cannot account for the acts of men as objectively viewed without considering their conscious states, and noting that no individual man would be led to hold other men responsible for their past acts did he not in his innermost experience find the sense of responsibility for his own individual acts in the past.

The objective view of responsibility has doubtless been bound up with, and has developed coordinately with, the subjective sense of responsibility; and I am free to admit that probably the early man would not have held his neighbor in any measure responsible had he not felt the germs of the sense of obligation within himself. On the other hand, however, it seems clear that the objective knowledge that other men are held responsible for their past acts has had, and still has, much to do with the development in us of our own inward sense of responsibility for what we recall as the voluntary acts of our past Selves; although as we shall see presently it cannot be maintained that this objective knowledge is alone of import in relation to this development.

The point I would make here is that this inward sense of responsibility could never have developed from its germ to what it is in us today, had not the application of this sense of our own responsibility to other men been of very great practical benefit to man in the course of his development. For we must grant I think that, had it been *disadvantageous* to the human race as a whole to hold other men responsible for their acts of the past, we men might indeed still feel a certain undeveloped sense of guilt and remorse, and yet would find ourselves impelled usually to refrain altogether from practical efforts to enforce upon other men the reality of the responsibility which they incur in each act.[1]

[1] For a fuller study of this question compare my *Instinct and Reason*, chapter xv.

It is desirable therefore, in relation to our theory of the nature of the Self, to consider quite objectively the advantage to the race connected with the responsibility which we demand of other men, which in its reaction has had so much to do with the development of our own sense of personal responsibility.

B

Sec. 4. Taking then this objective point of view we may remind ourselves that all men are practical before they are self-consciously rational. We inherit, or acquire, habits of action which are followed without thought; and only later, when doubt arises as to the meaning or propriety of these habits of action, do we stop to consider why we have followed them, and then for the first time do we question the rationality of the acts to which they lead us.

It is thus that man has formulated the complex system of legal restrictions which involves what we here speak of as objective responsibility. The individual in the beginning has adopted certain self-protective habits which involve the punishment of one who does him harm, in order that the latter may be immediately disabled or otherwise prevented from repeating his hurtful act. These self-protective habits in their elementary nature are purely instinctive, but they have been elaborated as man has gained intelligence to recognize ends and means to ends, and as such have been handed down from generation to generation by tradition, until we find them developed first into a body of customs, and finally formed into systems of law, which themselves have been widened in scope so that they no longer relate only to the protection of the individual, but relate more especially to that of the race to which the individual belongs.

If this view is correct it appears that punishment for crime has not been primarily due to a belief in the responsibility of the criminal, but rather to the necessity of devising

measures of protection, which were adopted first by the individual, and then extended to include protection of the social body by the state. This is made the clearer when we note, for instance, that at certain stages of development a man who is known to belong to a class which is looked upon as dangerous is under certain conditions punished as a representative of this dangerous class, although he may not himself have committed any overt act of a hostile nature: among barbarous tribes all strangers are treated as enemies; and even in our own day, in our punitive expeditions against the "lower races," the men and boys of a tribe that is thought to be hostile are at times ruthlessly slain by those whose atavistic passions have been aroused, even when these members of the hostile tribe have shown no signs of evil intent.

Without question, *pari passu* with the growth of these systems of protective punishment, there has appeared an emphasis of the notion of responsibility which is found in its germ in the inner sense of every man: nevertheless an objective view so clearly shows the priority of practice to insight that Herbert Spencer and others, as the reader will recall, have been able to argue that the sense of obligation is altogether a result of what are collaterals of the habits of reward and punishment,—that our sense of obligation is entirely due to the fact, as Prof. M'Gilvary puts it, "that commandments get their binding character because of the 'reasons annexed' to them and that these reasons consist in threats."[1]

Sec. 5. As self-preservative punishment has developed in this way until it has come to relate to the preservation of individuals as elements of a social whole, the relation between the commission of the crime, and the action protecting the individual or social body, has become changed. The savage individual who is attacked strikes the attacker without a moment's delay; but under the complex development of legal systems the protection of the social body by the punishment

[1] *Philosophical Review*, xi. 4, p. 349.

of the offender cannot be so summarily accomplished: and in our day this punishment is usually dealt out, not by the one attacked, but by authorized agents of the state; and then only after the offender has been tried by a "jury of his peers," and judged by them after cool deliberation to have been guilty of the crime. Beyond this we find a growing tendency to punish a man for a crime once committed, even if his guilt remains undiscovered until many years have elapsed, during which he may have lived an altogether harmless life, and may have become a thoroughly reformed and highly useful citizen.

So firmly established has this habit of punishment become that, as the reader knows, it has often led to the notion that the punishment of crime is in itself of prime importance; and this in its turn has led certain barbarous peoples to suppose that the crimes committed by one man, perhaps unknown, could be expiated by the punishment of a recognizedly innocent person. As a rule however, where the criminal has been known, the responsibility has always been felt to rest upon him, and upon him alone; and if vengeance was wreaked upon others it has been because these others were felt in some way to be in part responsible for his acts. The will of individuals, which on the whole is represented in existing customs and laws, would not in general lead to the punishment of one man for a crime which another had committed; and as it has been easy on the whole to keep in mind the individual human being, and to prove that what we know as the same human body which existed when the crime was committed exists on the day of punishment; so it has been assumed that the Self which actuated the man to commit the crime, was the same Self that actuates the man who is punished, it may be years after the crime was committed.

The change of procedure between summary immediate retribution upon the offender, and that of even the crudest of legal systems of punishment, has involved slow development through so many ages, and such slight advances in

successive generations, that no circumstances would be likely to occur to raise the question as to the identity of the Self of the criminal, and of the Self of the man punished; and it is not surprising therefore that the notion should naturally be held today that, in any instance where we have not lost sight of the individual man, the Self which actuated the crime is the same Self which actuates the living individual from whom we demand retribution.

We have, in my view, in this gradual growth of legal systems, in connection with the enforcement it has brought of the notion of a persistent Self, an adequate psychological explanation, were there no other, of the fact that this belief in an unchangeable Self has become so fixed in our whole scheme of thought that it can with great difficulty be displaced.

Sec. 6. It is evident thus that the common assumption that the Self of a man remains unchanged from day to day, and from year to year, is one which has become inextricably bound up with conceptions which have been of great value to the race, and that in this way it may be said to have been indirectly of very great service in the protection of individual and social life in the past; and it is equally clear that it has been most natural to make this assumption because we have during the passing days and years noted no sufficient visible change in the body of the man, which appears as the instrument of the Self, to warrant us in believing that he has not remained the same man during the observed intervals of time.

On the other hand it seems equally clear that even if men had long since recognized as a fact that the Self which actuates the man when he commits a crime is not the same Self that actuates the man who is punished, nevertheless they would not have been deterred from adopting the self-protective devices which we speak of as the punishment for crime; and this for the simple reason that the development of civilization could not have occurred without such self-protective measures.

It is certain however that, had the changeable nature of the Self been recognized, men would not have been content with the rationalized basis of their conceptions of objective responsibility which satisfies them today; but would have modified these long ago, as they surely must eventually if the theory here upheld is a true one. It remains for us then to enquire in what respect our views of objective responsibility must be altered if we accept the theory that the Self of a man is in each moment a new and unique Self.

Sec. 7. That we may make this enquiry intelligently it will be well for us to ask what element in this assumption of the continuity of the Self is of fundamental import to the perfection of the protective systems in connection with which this assumption of continuity has been maintained.

Now clearly it is not of any great importance to such a protective system whether the Self be the same from moment to moment or not, provided the acts of the individual man whom we keep in view are practically the same from moment to moment under like environmental conditions. We are thus led to see that the fundamental conception upon which is based our notion of objective responsibility is, not the notion that the Self is a persistent unchangeable entity, but rather the notion that the Self of the present moment would act under similar conditions just as the Self of the man did who in some past day committed the crime. This in truth those of us who think carefully know is not actually the case; but we also know that the changes in the manner of the man's reaction from day to day are so slight that in general they may be overlooked.

Our law then, and the opinion of men which it represents, in affirming objective responsibility merely holds that the Self of the individual man of this moment would not be what it is had not a Self of a certain recognized type existed in connection with the body, which we call the same individual man, at the time of his criminal act. But beyond this it holds also,

more broadly, that each Self of a special man of each moment would not be what it is but for the previous existence of all the Selves of this special man with which it is acquainted; as is shown by our efforts to discover the general character of the man who has committed a crime, and by the lightening of his punishment in many cases where it is shown that the Self which actuated the crime was not the man's *usual* Self. It is really because of this assumption, viz. that the man's Self of each moment is dependent upon the nature of all the Selves which we picture as having actuated the man's deeds in the past, that we hold that, were the situation repeated, the Self of this moment would act, were it allowed to do so, practically as the Self did in the moment of the criminal act; and for that reason the law maintains that it is warranted in entering in and protecting the social body, either by the killing of the criminal, or by isolating him and thus avoiding the occurrence of opportunities for him to act as he once has acted, or by the infliction of penalties which will tend to change his Self so materially that under the same given conditions he will not act as he did when he committed the crime.

Now it is perfectly clear that the modern psychologist, if he maintains that the Self of an individual is always a new and unique Self, must nevertheless also hold the view which would be gained from the standpoint just described. He will find it necessary in other words to hold that the Self of an individual at any moment, although a new Self, is nevertheless what it is only because other Selves of a definite character have in the past existed in connection with his individual body. This Self of this moment must be what it is because of the inheritance of forms which have occurred in the life history of an indefinitely long line of ancestors, and because of modifications which have been effective during the existence of his body as a separate individual; and we realize that in no way can this form of the Self of this present moment be altered in a manner which can eliminate the influences due to

this inheritance, and to these past experiences, which have determined the nature of the Selves which have previously existed in connection with the individual under consideration.

It becomes clear then that the assumption which is really the basis of objective responsibility is one which is quite compatible with our assumption that the Self of an individual is always a new Self; and it is evident therefore that this latter assumption which we are making will in no manner affect current customs based upon the notion of this objective responsibility.

Sec. 8. Before we turn from the consideration of objective responsibility it may be well for us to note certain corollaries of the views here maintained which have bearing upon current practice in relation to the punishment of crime.

If it is true that the Self of each man at any moment is what it is only because of the previous existence of all the other Selves which have appeared in connection with his individual body during his life; and if our notions of objective responsibility are based upon this fact; then it appears clear that, if a man is held to be responsible for the acts initiated by his Self of any one moment, he must be also held to be responsible for *all* of the acts initiated by *all* of his previously existing Selves. Or in other words if it is held that a man is responsible at all, it must be held that he is never irresponsible, that he must always bear the burden of his deeds in the past.

That this is not in accord with current views is evident: for it is commonly held that men whom we call imbeciles, or insane, are irresponsible; as are also the very young, and men who are temporarily maddened, say by excessive drinking. And in consideration of their supposed irresponsibility, such people are often relieved from punishment to which they would be liable if they were held to be responsible, and which it is of evident advantage to the state to inflict.

As a matter of fact I think it may be maintained that we

do not in general punish a man because we hold him responsible for his deeds in the past, although we usually lay claim to such a rational procedure: rather on the contrary do we hold a man responsible because we think he ought to be punished. When it is clear that a human individual has committed a crime, but when we do not deem it in our interest, or in the interest of humanity as a whole, that his crime be punished; then we, quite irrationally if we hold to current notions, trump up some reason for declaring him to have been irresponsible at the time of the criminal act. When we pity the girl who has killed the man who has wronged her, we say that she was temporarily insane when she committed the murder; that is, we do not wish to punish her as a murderer, and we therefore declare her to have been irresponsible at the time of the act. When we see the child steal, and are overcome by compassion, we claim that its youth carried with it irresponsibility, and that the child should go unpunished.

The practical difficulty in connection with such a view as that commonly held lies in the great diversity of opinion, and the great uncertainty of opinion, as to when a human being is to be held responsible and be punished, and when he is to be held irresponsible and go free. This difficulty disappears entirely however if we once accept the view here maintained, that a human being is at each moment to be held responsible for *all* the acts committed by him as an individual; and if we then acknowledge frankly that we punish crime not because the criminal is responsible, (for that he always is,) but because we wish to protect ourselves, and the society of which we are elements. At once then our action becomes thoroughly rational.

With this aim clear before us we may hold that, although the child is responsible for its theft in the past, it is not worth our while to punish him as we would an adult, for the reason that, if put under proper guidance in a better environment

than that in which he was born, he will in all probability develop a moral sense that will produce in him Selves incapable of theft. We may hold that although the wronged girl was responsible for the murder of her faithless lover, she is a woman who under proper guidance may lead a normal life of usefulness; and we may quite rationally decide not to punish her by hanging, but to place her under such educative restraint as will enable her to avoid such conditions as those which led to her crime. We may believe that a man was an imbecile who killed his devoted mother, or that another was what we chose to call insane when he killed his wife; and we may judge this from the evidence of continued imbecility in the one case, and in the other from the fact that the man was subject, before the criminal act, to fits of madness: but we will not hold either the one or the other the less responsible for their acts. We will rather argue that society must be protected from the danger of having in its midst men who are liable to murder other men, either through imbecility or because they are subject to attacks of homicidal mania, and that we may therefore quite properly incarcerate them in asylums. If the man who has been subject to attacks of mania is held to be curable, and after a long test is believed by expert psychiatrists to be cured, then we may quite rationally release him, with warnings to his friends to watch him closely for recurrence of the symptoms of the old disease which led him to commit the crime.

Such a rational course of procedure would obviate many a scandal in our courts, where criminals so often set up the plea of insanity in order to prove themselves to have been irresponsible at the time of the criminal act, hoping thus to avoid punishment. Were we perfectly rational we would say to such an one:—"You are thoroughly responsible for that act of your past-Self. All that you can attempt to prove is that you are a man who has once been mad, and when thus mad has committed a crime. Against such a man we are bound

to protect ourselves, for the reason that if like conditions recur you may again commit similar acts; and to this end we shall incarcerate you permanently, or long enough to assure ourselves that you are no longer the kind of man who is likely to commit such criminal acts; or we may even determine to hang you, if we believe that others who are of your type may be deterred from like crimes by the knowledge that the punishment for such crimes is death."

If once our people at large acknowledged that each individual could in no way escape from the responsibility attaching to all of his acts in the past our penal enactments would be in the long run much more rational, and much more just. We would then concern ourselves no longer with questions as to when men are responsible and when irresponsible, but with questions relating to the value of punishment and its practical effects. We would consider more thoroughly the cost to the State of its corrective institutions and constabulary, and judge how far the restrictions thus maintained are of value: we would enquire how far restrictive punishment is necessary for the protection of society; and, where it is not deemed absolutely necessary, how far it is of value to the individual as a member of the social body. In my view such a rational consideration of the subject would lead to a surer and more speedy betterment of social conditions, than a consideration based upon the notion that responsibility for one's acts may in certain cases be shifted by appealing to the surroundings and conditions which have led up to the criminal act, or to the unfortunate state of the man's health, or to his morbid development, or to his youth and inexperience.

C

Sec. 9. Let us now turn from this objective, to a subjective, view of responsibility. As we have already noted, it seems highly probable that, unless the inward sense of

personal responsibility for his own past acts had existed in man in its germinal form, it would never have occurred to him that it was rational to hold his fellow responsible for acts which could be traced to him in his past life. The notion of objective responsibility, as thus derived, has as we have seen been greatly changed in connection with the development of practical protective measures with which it has become associated; and these protective measures have without doubt had a very profound effect in emphasizing in the minds of men the force of this inward sense of personal responsibility: but it cannot be claimed for a moment that the sense of our own responsibility is determined by the pressure of social institutions alone; for on no such ground can we explain the self-evident fact that our inner sense of responsibility goes beyond the limits set by law and custom, and involves the recognition of responsibility for sins of which the law takes no cognizance, and which custom condones if it does not altogether overlook.

But in the thought of the average man this inner sense of responsibility for the act of his individual body in the past is bound up with the conviction that his Self is an unchangeable entity. He may well then ask us why we should burden ourselves with remorse, if the Self of the moment is not the same Self that willed the act which we recognize now to have been sinful. Surely, he may say, if the Self of each moment is a new and unique Self, then this moment's Self cannot rationally be called to account for what a quite other Self did in the past, and the man cannot be warranted in worrying himself about these past acts.

Here again we must go back of our crude notion of our own individual responsibility, and note that what is important in that crude notion is the conviction that the Self of this moment is what it is because of the existence in the past, in connection with the same individual body, of other Selves that performed acts which we now regard as having been

sinful. And this, as we have seen, is exactly what our doctrine teaches; for it tells us that our present Selves are products, as it were, of all other Selves which have existed in connection with the past acts of our individual bodies; and that we cannot disconnect our present Selves from those previously existing Selves, without assuming that our present Selves are other than they really are.

Sec. 10. It may be claimed that, even if we view the matter thus, an acceptance of our view would weaken our moral fibre, in that it would lead us to think less of the import of our past acts. This view however I think cannot be seriously defended, rather must it be maintained that under our view these acts of the past acquire for us a new significance. For we see that, as we now understand the meaning of responsibility, we must hold ourselves responsible, not for some, but for all of our past acts. We are all too apt to attempt to shirk this responsibility; to lay it upon our youth and inexperience, upon circumstances and pressure upon us, upon temporary conditions of passion. But under our view it appears clear that no such shifting of responsibility can be allowed to us. My present Self is what it is because of the previous existence of the Self that acted in youth and with lack of experience, of the Self that allowed itself to be influenced to sin by circumstance and pressure from without, of the Self that succumbed to the passion of a moment: and in my present Self I bear the marks of all these past acts of my previous Selves, and cannot "count out" the effects upon me of any single one of them.

Thus it appears that the view here maintained, far from lessening, materially adds to the seriousness of the implication of our inner sense of personal responsibility. If it be true that we can never cast behind us the effects upon us of our acts of the past, we surely must feel enforced within us the great importance of careful consideration of each motive to action, and must be pressed to strenuous effort to prevent the

recurrence of deeds such as our past Selves have produced, and which we now acknowledge to have been sinful.

Sec. 11. But it may be held that the current view of the personal responsibility of a continuing Self is a most important aid to man's moral regeneration, and of practical benefit, in that it leads him to make reparation for the results of his past sins. It may be justly claimed however that in this view of ours we find a much more efficient aid to one's moral regeneration, and a more urgent pressure to make restitution for the loss to one's fellows of goods or welfare caused by the act of our past, but other, Selves.

The reparation for past sins is called for, under our view, in order to truly re-form our Selves ;—to make of them Selves of so diverse a type that, not only will they not by their acts bring about loss of welfare to our neighbors, but will actually bring gain of welfare to them.

It appears further that effort towards moral regeneration is more easily maintained under our view than under a view which holds that the same old Self, which in the past worked evil to his fellows, remains with us. For under the current view this old continuing Self must continue to remain with us to all time as it has in the past. What warrant have we, under such a view, for belief that this Self, which persists as it was, can be so changed that it will not repeat its sins of the past, if the same conditions are again given? With greater hope, under our view, are we able to maintain that the Self of the past which sinned can never recur: that although the new Selves to arise will be in part what they are because of the existence of the particular Self whose act we deplore, and of all other past Selves; nevertheless that each future Self will be a new Self which may be so remoulded as to be altogether different from the Self that in the past has sinned. We see thus no reason for aught but courage in our effort towards our moral improvement. Under a view that holds the Self to be a permanent, and unchangeable, and

persisting, somewhat, one may well be led, beyond remorse, to hopelessness and despair: while for us, under our view, there is no place for despair, as we realize that the Self of each moment must be a new and unique Self, and never the same Self as of old; and that its opportunities for improvement are thus continuous and without limit.

II

A

Sec. 1. It is generally found that our definite conceptions are based upon certain fairly clear introspective experiences; and the conception of the "freedom of the will" is no exception to the rule. As we shall presently see it must be granted that this notion is valid if it is stated in proper terms; but the meaning of the experiences which gives rise to this conception has been too often misinterpreted, and as a result the average man finds himself confronted with certain very puzzling philosophical difficulties, which in my view arise primarily in connection with the attempt to harmonize the current theory of responsibility with the current notion that the Self is an unchangeable entity; and if such is the case we may well ask ourselves whether our interpretation of responsibility as presented in the preceding pages, and the view as to the mutability of the Self which we find ourselves led to maintain, serve to remove these difficulties.

If one holds the common view that the Self that actuates a man is an unchanging entity, and if he is led to enquire whether our mode of rewarding or punishing an individual today for his acts of yesterday is rational, he finds what are apparently fairly good reasons for our ordinary procedure if he assumes that the acts performed by the man yesterday were so undetermined that he could then have acted differently than he did; but holding this view he finds no clearly valid ground for praise or condemnation if he assumes that the man could not have acted otherwise than he did act. At first sight this assumption, that the individual could have acted otherwise than he did act, seems to find sufficient ground in our experience of voluntary choice of which we speak below; and the

common man therefore takes the position that his Self of yesterday, remaining the same Self, might have acted differently than it did; *i.e.* that in acting he had a choice which was determined by a Self which without change of conditions might have acted in either of two contradictory ways, according as it chose to act.

As President Arthur T. Hadley[1] well says: "The moral sense of those who reason about these things today demands some distributive fairness in the allotment of rewards and punishments. If a man really has a choice this necessity is met. To save its sense of justice, while imposing physical penalties and preaching moral ones, society asserts the existence of such a choice and the responsibility that goes with it. These facts go far to explain the teaching and general acceptance of the theory of the freedom of the will. From the standpoint of modern science this theory is little short of an absurdity. From the standpoint of modern morals it is little short of a necessity. The community must compel its members to exercise self-control, and must justify itself for punishing them when they fail to exercise it. Both of these results are secured by the teaching of the 'freedom of the will.'"

Sec. 2. I think it must be granted that as President Hadley puts it "from the standpoint of modern science this theory is little short of an absurdity." For if we agree that the events in the natural order are subject to law, and are determined *in this sense*; and if we agree that man is a part of Nature; then we cannot but hold that man's acts, whether instinctive or volitional, are subject to Nature's laws. From this point of view it therefore appears that in his volitional

[1] *Freedom and Responsibility*, p. 69. Confer also Prof. J. S. Hyslop, *Mind*, N.S. 10. "It is only the question of punishment that can give any importance to the freedom of the will and responsibility. Were it not for this very practical problem, there would probably be no interest attached to the problem."

acts, with which we are here concerned, an individual Self in any special moment cannot act otherwise than it does act, inasmuch as this Self is part and parcel of the Universe in which law prevails.

Sec. 3. But if on these grounds we are forced to deny that a Self of any given moment could act differently than it does act, we are brought to face the fact that "from the standpoint of modern morals" the defence of this notion "is little short of a necessity," to quote again the words of President Hadley. So far as I can see it is thus a necessity only because of the usual assumption that the Self is an unchanging entity; for resting upon this assumption it justifies itself for punishing those who fail to exercise self-control by holding that this persistent Self might have acted as it did not act.

If on the other hand the Self that acts is in each moment new and unique, then at once disappears all the cogency of the main argument set up for the defence of this "scientifically absurd" doctrine by those who accept the current basis of the doctrine of responsibility. For if a man's now existing Self is not the same as the Self which committed act α in the past, then, according to the current conception of the basis of responsibility, it appears irrational in any event to reward or punish this now existing Self for what was the act of quite another Self in the past: and it is therefore of no importance whatever, for those, who defend this particular view in relation to the doctrine of responsibility, whether this other Self of the past could or could not have committed the act β, instead of the incompatible act α which it did commit.

In either case then we are compelled to find other than the current grounds for the enforcement of the notion of personal responsibility. That these other grounds are discoverable I have endeavored to make clear in the preceding division of this chapter: and thus we are left free to consider the real questions involved in the "free will controversy" without any such pressure as is brought to bear upon us so long as we

hold that the doctrine of moral responsibility is necessarily based upon the notion that the Self is undetermined in its acts.

Sec. 4. With the ground thus cleared we are better prepared to deal with the problem before us, which may be profitably considered from two points of views by asking, 1st, whether the Self, which acts in a certain manner in a given moment, could have acted in any other manner in that same moment "had it chosen to do so"; and 2nd, whether the Self which acts is free.

Before we attempt to consider these questions we must remind ourselves again that the Self of the man that acts must be discriminated from the empirical ego of the man that is appreciated as active when he makes a voluntary choice. While we may well claim, as we have seen, that the empirical ego is a simulacrum of the Self, it seems clear that it is itself merely a specially interesting form of the so called presentations to the Self. It appears to the writer that the failure to keep this distinction in mind is responsible for much of the confusion that has entered into the discussion of the subject here considered. For where we question whether the Self is free, we speak objectively and refer to the true Self of the man when he acts: where, on the other hand, we speak of the self as "willing" we are usually dealing with states of self-consciousness, and are referring to the empirical ego which is given as a "presentation" to the Self, and which as such appears to be efficient in the act of will. This distinction must be borne in mind in what follows.

B

Sec. 5. When, turning to the first of the two questions stated in the opening paragraph of the preceding section, we ask whether the Self, which acts in a certain manner in a given moment, could have acted in any other manner in that same

moment;[1] we are compelled to face the fact, spoken of in Sec. 2 above, that if our Selves are part and parcel of the universe in which law appears to prevail, then, just so far as the forms of all other parts of Nature are determined, so the nature of my Self and its forms of functioning must be determined. It is to be acknowledged of course that this notion of the determination of Nature to act in accordance with law is itself an assumption based upon our general experience which in the nature of the case cannot be more than limited: but if we grant the validity of this assumption, as most men do, then it appears that the nature of each Self of each moment, as part of the Universe, must be determined, and that its mode of action must in like manner be determined.

What Prest. Hadley calls the "absurdity" of the indeterminist position stands out even more clearly if we shift to some extent our point of view. And here it must be noted that we are forced to deal with one of those difficulties which we make for ourselves by using our terms carelessly. The word freedom is employed by us commonly to indicate lack of restraint, while at other times it is used to indicate the possibility of the choice of either one of two incompatibles; and in most discussions of this subject the contestants shift from one of these meanings to the other with little hesitation.[2]

Modern psychologists recognize very generally that while it is at times convenient, it is not scientifically accurate, to speak of "the will" as though it were in itself an entity. What we really refer to when we speak of the "freedom of the will," is

[1] Some reader who has in mind the arguments of others, especially those of Edwards in his *Freedom of the Will*, may think it unnecessary for me to lead him over this well-trodden ground; but evidently Edwards approached the question from a standpoint very different from ours, and, as I have said above, the problem gains new meaning in connection with the thesis of the mutability of the Self here maintained.

[2] Confer Prof. Fullerton's article on "Freedom and Free Will," *Popular Science Monthly*, Dec. 1900. Confer also Hume's *Human Understanding*, sec. 8, last sentence of part i.

the freedom of the individual man in an act of willing. As Locke[1] put it long ago "the question is not proper whether the will be free, but whether a man be free." If, with such an understanding we contend that the will is free, then we mean to claim that the man who wills is free in his willing; and this, if stated in other words, means simply that the Self is free to act, and always does act, in accord with its own essential nature, as that is at the moment of the act. If then I am able at any given moment to perform act α, and in so doing am free to act in accord with the nature of my Self, then evidently I cannot in this same moment be able to perform act β which is incompatible with act α, while still remaining free. For if I could perform act β, I should not be acting in accord with the nature of my Self of the moment, and should therefore act under compulsion, *i.e.* without freedom.

It would thus appear that under this view we must accept one of two alternatives; we must either abandon the notion that the Self is always free to act in accord with its own nature, or else the notion that in any moment it can act otherwise than it does act. But there are strong reasons, as we have seen, why we should abandon the latter position, and we therefore do not find ourselves led by this consideration to abandon our belief in the freedom of the Self to act in accord with its own nature, of which we speak more at length in the third division below.

Sec. 6. But we cannot leave this first question with so simple a statement as this. If such an argument is to carry conviction it will be necessary to present some adequate explanation of the fact that so many thoughtful people have found themselves constrained to uphold the doctrine that in any moment of action the Self, had it so chosen, might have acted in a different way than it did act, and that such a possibility is of the essence of the Self's freedom.

Here it is to be noted that we appeal to the sense of lack of

[1] *Essay*, etc. book ii. ch. xxi. sec. 21.

restraint in evidence of the possibility of indeterminate action. Bearing in mind the confusion of language above referred to let us examine the evidence of an introspective nature which seems to warrant the contention of those whose position we oppose, who are wont to hold that the Self in any moment of action might have acted differently than it did act, mainly on three grounds. 1st, Because we have the experience of being in doubt as to which of two incompatible acts we shall will; and a sense of choice between the two; with a conviction, after the act, that we had the power to choose the one not chosen. 2nd, Because we experience within ourselves a sense of freedom in willing. 3rd, Because we feel a sense of responsibility for our acts in the past which we would not feel were we not assured that either of the alternatives might have been chosen.

Sec. 7. We may dismiss at once with few words the third point just stated in consideration of what has been said in Sec. 3 above, and in the preceding divisions of this chapter, where we have shown; 1st, that the doctrine of responsibility cannot be properly based upon the notion we are here considering, if it be held that the Self in each moment is a new and unique Self, as we contend; and 2nd, that a perfectly adequate and more satisfactory basis for the doctrine of responsibility is found which has no reference to the notion that the acts of the Self are undetermined.

Sec. 8. We may turn then to the consideration of the claim, the justice of which must be acknowledged, that, whether the argument from responsibility above discussed is valid or not, it could not have been made did not men have experiences which lead them to agree that they are often in doubt as to which of two incompatible acts they are about to will, and did they not have a conviction after the act, that they had the power to choose the act which they did not choose.

This experience we cannot afford to overlook. But when we study it with care we at once see that we are here considering

evidence gained in states of self-consciousness in which we deal not with the Self, but with the empirical ego; and it is clear that the experience here referred to must be very differently interpreted if one holds that there is a permanent Self which is in some manner given in self-consciousness, and which is referred to in this experience of hesitancy, and choice, and conviction of lack of determination; or if one holds, as we do, that the ego of self-consciousness is not in any sense the true Self, but is merely a special form of "presentation" to the Self, viz.: is an empirical ego which is itself in each moment new and unique.

The interpretation of the facts here under consideration, as given above, is clearly based upon what we hold to be the false notion that there is a permanent Self which acts, now in one way, and now in another. In thus interpreting our experience we think of the same Self being in doubt, and actually deciding to do one of the two incompatible acts, and then looking back and thinking that, had it chosen, it might have performed the other of the incompatible acts.

But under our view these experiences must be interpreted quite differently, and as follows. We often note in experience, in rapid succession, diverse empirical egos which appear as about to emphasize elements of a given object which are incompatible with one another. These diverse empirical egos may have many elements in common, but that they are appreciated to be diverse empirical egos cannot be doubted by one who has followed our thought in Chapter XXVI. As such diverse egos they may even appear to co-exist; we actually think of them often as standing over against one another, as when we speak of one as a "better self" than the other.

Quite apart from the claim that each empirical ego must be new and unique, it seems clear that such empirical egos as we are here describing are altogether diverse in the very fact that, if practically the very same object is given to each of them, each tends to react differently upon the object. As one of

these empirical egos is about to act upon the given object by the emphasis of certain of its elements, its action is inhibited by the appearance of the other empirical ego which tends to act upon the object by the emphasis of quite incompatible elements. Finally one of these empirical egos does act,—becomes effective,—and then in the "act of will" the deadlock is broken. We then look back in retrospect and see the two empirical egos in contrast, and we realize that one of them did act in a certain way, and that if the other had acted it would have acted in a quite incompatible way.[1]

Thus far we have been dealing with introspective facts which cannot be denied. At this point however we are wont to be obfuscated by the intrusion of our usual but unwarranted assumption of a permanent Self of which both of these empirical egos are equally representative; and we say that the Self might have performed either of these two incompatible acts; and in the fact that it did the one and not the other, while it did "choose" the one it might just as well have chosen the other. But clearly this conclusion is altogether unwarranted, for the simple reason that if our view is correct neither of these empirical egos is representative of a persistent Self: they are diverse "presentations" to the Self of the moment of reflection; and they themselves are each new and unique "presentations" in any event, whether or not it is agreed that the Self of each moment is a new and unique Self. The notion of freedom, understood as the ability of the same Self to act in either of one of two incompatible ways, clearly finds no confirmation then in the misinterpreted introspective

[1] Confer Bradley (*Mind*, N.S. 43, p. 306). "Moving ideas A and B" (incompatibles) "cannot, while really taken thus as alternative, be present together,, and we are able to think this possible only because we really do not take them as opposites. We, for the moment, may merely ignore their reciprocal exclusion, or we more or less consciously may fancy some wider arrangement in which they cease to conflict. But while each appears simply and unconditionally as containing the negatives of the other, I am confident that both practical ideas, as ideas, do not come before us at once."

experience above described, which in any event relates not to the Self but to empirical egos; and it surely cannot therefore be said that the indeterminist's position is substantiated by any such appeal to introspection as that here considered.

Sec. 9. But the third point mentioned at the close of Sec. 6 above may still be urged in favor of the view we here oppose; viz. the fact that we certainly have an immediate sense of freedom in the act of willing. This I not only would not deny, but would myself affirm. Yet I would hold that this fact has no direct relation to the question as to freedom, if we use that term as opposed to necessity, which is the real point now at issue. It has relation only to the question of freedom where the term is used as opposed to restraint.

Granting that we appreciate a sense of freedom in the act of willing, this fact throws no light whatever upon the question whether we could have willed what we did not will, as becomes clear when we note that had we willed what we did not will, we would have experienced the very same sense of freedom in connection with the will act. When we appeal to the experience of the sense of freedom in the will act we are merely referring to the fact that a self-conscious act of will always follows an inhibition due to opposed tendencies; and that with such an act, whichever of the two tendencies prevails, must go the sense of relief from strain which in common language is spoken of as the joy of liberty or freedom. But evidently the freedom thus referred to is not the indeterminate freedom of the Self which we have here under discussion.[1]

[1] In this connection I may call attention to the view of Prof. Charles A. Strong (*Journal of Philosophy*, etc. 1. 5, p. 127), who, in somewhat the same vein, has held that "the consciousness of freedom arises when alternative courses of action are weighed against each other. Neither is strong enough to draw us automatically in its direction; if it were there would be no deliberation, and only in deliberation can there be a sense of freedom. We are free to choose either course; that is with reference to neither are we forcibly led captive by the other. . . . Freedom is the opposite of bondage. The bondage is to any thought of action that determines the act automatically."

C

Sec. 10. If now we turn to the second of the questions as referred to in Sec. 4, and ask whether the Self which acts is always free to act in accord with its own essential nature, we must at first note that in speaking of this freedom of the Self we cannot refer to a hypothetical condition in which the will act arises without cause. That this is the essence of volitional freedom has indeed often been, and is still implicitly maintained by those who do not think clearly: but surely there has been no excuse for clinging to any such notion since Edwards wrote his famous essay.

Now can we hold that volitional freedom fails us if obstacles inhibit the fruition of the will act. We surely see no reason to uphold such a view when these obstacles are in the world without us; and careful consideration convinces us there is as little reason to maintain this view when the obstacles are found in the nature of the "psychical dispositions" which we have inherited from our ancestors, or which have been produced by our previous experiences inclusive of our previous volitions.

The freedom of which we enquire must belong to the Self in the moment of the will act, and if we assert this to exist we can mean nothing other than that in each case of willing the Self acts in accord with what is its essential nature at the moment of action.

In considering the question before us in the light of our view as to the mutability of the Self, we may note in the first place that, if the Self in each moment is a new and unique Self, we may hold that the Self is free in the sense here considered without taking a position in opposition to those who hold that the acts of the Self as part of Nature are in each moment determined in one, and only one direction. For we may hold that when the Self performs act α it is a new and unique Self of a special kind which we may call A; and that if it had performed act β which is incompatible with α it would have

been a new and unique Self B, which would have differed from A. And it is clear that this does not in any way lead us to deny that each of these Selves A and B, when they act, are free to act in accord with their essential and diverse natures.

And when we turn to the main question, whether the Self, when it acts, is really thus always free to act in accord with its innermost nature, we find ourselves forced to give an affirmative answer. For as we have seen the Self is part and parcel of the whole psychic system of consciousness in any given moment. As such it is always efficient in some measure in giving the form to the noetic pattern of the moment; and it is thus efficient because its nature defines the mode of its action upon the rest of this noetic pattern of the moment.

Environmental influences as involving momentary psychic emphases, and pre-existing "psychical dispositions," also always have to do with the form which is given to the noetic pattern of a given moment, and their psychic resultants are also efficient because their nature defines the mode of their action upon the noetic pattern of the moment. Thus we may truly say, not only of the Self, but of each part of consciousness, that so far as it is efficient it is free in the sense that it acts in accord with its own innermost nature.

There are cases, as we all know, where the psychic resultant of these environmental influences, or of these pre-existing "psychical dispositions," appear to be alone efficient in giving form to the noetic pattern of the moment; and in such cases, while the "presentations" given in attention appear to be free to act in accord with their own nature, the Self seems to us to be inefficient, and lacking in freedom. But evidently this appearance must be illusory: for the Self being part of the consciousness of the moment must, even in such cases, always have its part in the forming of the noetic pattern; it must always tend to assimilate or not to assimilate what is given to it; it must always either welcome or reject the form of emphasis which thus appears to us to be forced upon it, and in

thus acting it must always act in accord with its own essential nature: *i.e.* with freedom, in the sense in which this freedom of the Self is here considered.

The form of the noetic pattern of any moment, *as objectively viewed*, is determined as all situations in nature are determined; and this involves the determination, in this objective sense, of the nature of the Self which is part of the noetic pattern of the moment. But on the other hand, *as subjectively viewed*, the Self within the noetic pattern must necessarily react in accordance with its own nature, just as all other parts of the noetic pattern act.

Sec. 11. Evidently then if a Self as thus conceived acts to emphasize one of two incompatible "presentations," and in a manner that is determined, it does so only because it is free to act according to its own innermost nature, which itself is determined. Just as evidently if, in the moment in question and *remaining unchanged*, it had acted to emphasize the other of the two incompatible "presentations" it would have acted *not* in accordance with its own innermost nature, but in some other way; and clearly then it would no longer have been free in its action, but would have been restrained from its freedom because forced to act in a manner not in accord with its nature.

But if we once agree to the doctrine that the Self is at each moment new and unique, then we may hold that, as the Self of an individual man changes from moment to moment, two Selves may be developed in succession in the same individual: one of which would act, with freedom, to emphasize one of two incompatible "presentations"; and the other of which would act, also with freedom, to emphasize the other of the two incompatible "presentations." Under this view therefore we are under no compulsion to deny the real freedom of each Self to act in accord with its innermost nature, when we appeal to the experience, considered in Sec. 8 above, of the sense of two empirical egos as contending together for the mastery: and this experience itself, upon which mainly is founded our

notion of the doctrine of freedom as usually improperly stated, is found, as we have seen, to be altogether in harmony with the conception of the real freedom of the ever changing Self; while it is not thus in harmony if we look upon the Self as a persistent unchanging entity, the nature of which is reflected in these two empirical egos given in self-consciousness.

D

Sec. 12. We are led here to consider an important question which does not seem to me to receive in our day the attention it deserves. It is a very old one, as the reader will recognize, but one which in the light of modern psychological development appears in a new form. It has been overlooked, or glossed over, by those who should have seen in it ample reason to modify theoretical positions of great importance.

We all recognize in ourselves the experience which leads us to acknowledge that at times we have erred, that at times we have sinned; or in other words we agree that we, like all other men, have acted voluntarily in ways which in retrospect appear to have been irrational. We acknowledge this without hesitation but, strange to say, without asking ourselves how this can be true if the Self is conceived as a persistent entity, which acts voluntarily, and is at the same time free to act in accordance with its own essential nature. For if it be true that a persistent Self wills irrationally, and if that Self is free in its voluntary acts, and if its freedom involves action in accord with its essential nature, then evidently a Self may under certain conditions be irrational in its essential nature, for thus alone can its willing be an irrational willing.

Such a view as to the nature of the Self cannot be pleasing to any of us, and must be especially distasteful to those idealistic metaphysicians who are wont now-a-days to teach that Will is in its very essence rational. Nor can such a view appeal to the introspective psychologist who is wont to assume what I

believe to be true, as I have attempted to show in earlier chapters of this book and in my *Instinct and Reason*, viz.: that the natural outcome of the process of reasoning is a volitional act; and that the antecedent to the volitional act always appears to be implicitly of the general form which becomes explicit in clearly defined ratiocinative process. Thus I am led to hold that all volitional acts are necessarily rational acts *at the moment of their occurrence.*

Sec. 13. It is of course clear enough that we recognize in ourselves what we call "unreasonable action"; but as we have just said it is not easy to see how voluntary irrationality can be compatible with our views as to the nature of rationality, and at the same time compatible with the thesis that the Self which is assumed to be active in this volition is always free to act in accordance with its own essential nature.

Now it appears to me that the difficulty thus presented is entirely based upon the prevalent, and as I hold fallacious, view that the Self is a persistent entity; and that it is solved at once if we accept the views here defended; 1st, that the Self of each moment is new and unique; and 2nd, that voluntary action involves the appreciation, not of the act of the Self, but of the act of an empirical ego which itself is also in each moment new and unique.

At this juncture it must be noted that if we state that the Self does ever act voluntarily and irrationally, *i.e.* does ever err or sin, and then appeal to our self-conscious states to corroborate this statement, we are not presenting effective evidence, for it is not the Self that is given in self-consciousness as acting voluntarily, but the empirical ego. Yet even if it be held that it is really the Self, although perhaps represented in the empirical ego, that acts in what we know in self-conscious states as volition; even so, if it is held, as I have argued above, that each voluntary act of the Self is rational, and that the Self thus acting is free to express its essential nature; then clearly we must deny that a Self ever does in fact act voluntarily and at

the same time irrationally, *i.e.* that a Self ever does err or sin.

Or suppose we state the matter in accord with the view that it is not the Self, but the active empirical ego, that is appreciated in our voluntary acts. This empirical ego under our view is a simulacrum of the Self, and has the characteristics which lead us to describe the Self as rational; and it, like all parts of consciousness, acts in accordance with its essential nature, and hence with freedom. But if it be held that each voluntary act is rational, and that the empirical ego thus acting is free to express its essential nature; then again we are brought to see that we must hold that we in our self-conscious states never do in fact act voluntarily and at the same time irrationally; *i.e.* that we never do err or sin.[1]

Strange as this statement may sound to some readers I believe it must be held to be true: but I hasten to add that this assertion contains no denial of the fact that we recognize that we *have* sinned or *have* erred.

It is perfectly true that, if we hold that the Self as represented by the empirical ego is a persistent entity, it is impossible to assert that a Self can never act voluntarily, and at the same time irrationally, without having our assertion combatted by the clear consciousness of our own sins and errors. But, if we agree that each Self at each moment is new and unique, and that each empirical ego at each moment is new and unique, then we do not find the least difficulty in harmonizing this assertion with our experience. For we are able to explain that the empirical ego always, in acting voluntarily, acts also rationally; but that nevertheless an empirical ego, or an imagined self, may be recalled which in acting freely and rationally, acted in a manner which would be irrational for the Self, or for the empirical ego, *of the moment in which this*

[1] Cf. Bradley, *Mind*, N.S. 43, p. 307. "If I acted knowingly for the bad, the bad must *ipso facto* have become good, and otherwise the act would certainly not be my volition."

recall occurs. We merely assert then that the recognitions of error and sin are recognitions of what is past; are due to a comparison of the acts of a past Self, which are represented in reflection by the acts of an empirical ego of a diverse nature from the Self, and from the empirical ego, of the moment of reflection;—of a past empirical ego which at the moment of its existence, freely and rationally, willed an act which the diverse empirical ego of the moment of comparison, in its freedom, could not will: and thus it is that we recognize that we *have erred* and *have sinned*; that we *have acted* in a manner which, if we could now act thus, would be irrational, and not in accord with the nature of the empirical ego of the moment, nor in accord with the nature of the Self of the moment as this Self is conceived.

When we look forward and say that if we act in a certain way we shall err or sin, the process is fundamentally the same; for then we picture to ourselves a Self acting freely in accordance with its own nature, but in a manner that would be irrational for the Self of the moment of comparison, *i.e.* in a manner that would involve this present Self's acting in contradiction with its own essential nature.

Under such a view this whole difficulty turns upon the fact that the notion of erring and sinning is an illusion due to our inveterate bad habit of dealing with retrospective acts as if they were occurring in the present moment. When we seem to catch ourselves in the act of sinning, or erring in the broader sense, we overlook the rapid transition between the actual rational experience in the act, and the experience of having acted, or of imagining ourselves acting.

It is to be noted here that if it were true that we experienced ourselves as souls in bondage acting irrationally, *i.e.* as sinning; this fact would have little ethical significance. It is the recognition that we *have* sinned that induces repentance, in which lies our hope of moral regeneration.

In April, 1893, Professor Henry Sidgwick published in

Mind a searching investigation of what he called "unreasonable action." This was later republished in his *Practical Ethics*. I shall hope that the interested student will read this paper carefully, as the analysis there given is an almost complete vindication of the views here presented. In *Mind* for January, 1894, I made a reply, the substance of which is republished in my *Instinct and Reason* (p. 418 ff.), in which I attempted to show that if Prof. Sidgwick carried his thought to its legitimate conclusion he would find it necessary to maintain the position above upheld. The question was there considered without any reference to the thesis as to the mutability of the Self, which gives us further ground for defence of this position.

Sec. 14. Here again then we perceive that a formidable difficulty disappears if we once acknowledge that the free Self is ever a new and unique Self. What can we mean by saying that I can either sin, or not sin, if I am an ever persistent unchanging Self, and withal a free Self. How can my Self, as objectively considered, at one time sin, acting freely in accord with its innermost nature; and at another time not sin, also acting freely in accord with its innermost nature which remains unchanged. No; the very fact that we recognize thus objectively that we have sinned is a witness to the truth that each free Self must at each moment be a new Self. For it is certain, if the Self is free, that it acted when it sinned in accord with its innermost nature; and it is equally true that it acted when it did not sin in accord with its innermost nature; and as the acts of sinning, and of not sinning, are incompatible acts, it must be because the free Selves at the moment of these diverse actions were diverse Selves. We are thus led to see still more clearly that the Self has at all times true freedom to express its own innermost nature in each act of will, and this only because we have learned to see clearly that each Self must be new and unique.

III

Of those who read the pages to follow, there are not unlikely to be some who, led by their deep and sincere interest in the subject to be treated, will turn to them without a careful study of what has preceded them; and without the special training necessary to enable them to comprehend the intention of my argument, or such significance as it may have.

To such readers I may say that they will find nothing whatever in what follows that can be read with profit by any who are not fully acquainted with the present status of psychological discussion.

We deal here with a highly technical analysis of certain concepts from the psychologist's standpoint; and attempt to indicate wherein they lack consistency and require restatement. So far as this restatement is attempted it is regarded by the writer as purely tentative, and as in no sense minimizing the deep significance of the concepts with which it deals; concepts which have broader than mere psychological bearings, and which must ever ennoble the lives of those who interpret them aright.

A

Sec. 1. Few readers of the preceding chapter can, I imagine, have failed to ask themselves whether the doctrine of the mutability of the empirical ego and of the Self which is there defended is compatible with the conception of the immortality of the soul which has in the past been, and is still, commonly held as a cherished and sacred belief by the very noblest of men and women.

No serious writer can touch upon this subject without hesitancy, for he must realize the danger of misinterpretation

and misconstruction on the part of those who have failed to gain his own point of view; and must dread the results to follow from an imperfect comprehension of his position by those whose faith in a deeply significant doctrine may be too easily shaken, without the compensating gain of conceptions equally significant and satisfying. And he must feel a greater hesitancy if he is convinced, as I am, that conceptions which have gained that realness that leads the common man to call them established beliefs, and which have maintained this realness for the best and most intelligent of men during long ages, must certainly express fundamental truths of value to mankind. This we may hold even though we acknowledge that in these conceptions the truths involved are but inadequately expressed, and are commonly misinterpreted.

But those who follow me in my general views must agree that human thought can in any event express only approximately the full truth; and that the conceptions current in any period must be modified in future ages, if with advancing knowledge they are to continue to appeal to men as true. The most that we can hope is that, as our knowledge increases, and as our conceptions alter, the approximation to truth expressed in these conceptions will become closer; and that, as we develope, these conceptions will more and more nearly represent what is wholly true.

If this position is accepted then it must be agreed that for those who appreciate the seriousness of life it is a duty to face from time to time the problem of the re-expression of truths which come to them clothed, as it were, in conceptions, in dogmas, in what men call fundamental beliefs, which nevertheless give rise to questionings drawing attention to their inadequacy as such expressions of truth.

One cannot properly undertake such a task however without a full recognition of the fact that such re-expression as he attempts to make may prove to be utterly inadequate. Where a given expression of a truth has persisted long, it is

certain that in many respects it has proved adequate; and before we can hope to gain a new conception the acceptance of which may justly be urged in its place, many an attempted re-expression must surely be expected to be found unsatisfactory in unforeseen particulars.

It is in this spirit that I undertake to consider the problem before us.

Sec. 2. It will be well for us in the beginning to ask ourselves what aspects of the problem we are in any way bound to treat in connection with the studies made in the preceding chapters; and what, if any, we may properly leave unconsidered.

We have dealt with the nature of consciousness, and of the empirical ego and the Self as parts of consciousness; and the general thesis of psychic mutability which we have emphasized in the preceding pages, so far as it has reference to our present problem, has related only to the empirical ego and to the Self of the experience of successive moments as such parts of consciousness.

If it be true, as may perhaps be well claimed, that the problem of the immortality of the soul is a broader problem than that relating to experience as such; if it be true that the problem is one in connection with which metaphysical considerations, other than those of which we have there incidentally taken account, are of essential importance; then it must be agreed that we are not prepared to deal with these broader, these metaphysical, considerations by the studies recorded in these pages. We are warranted therefore in treating only of such limited aspects of the problem before us as bear distinct relation to the nature of consciousness as we have considered it: and these limitations I accept. What I shall have to say in what follows may well be but a partial expression of a broader truth, even if as such a partial expression it is accepted as adequate.

Nevertheless I think it will become clear as we proceed

that the form of the problem with which we are, or should be, prepared to deal, is the only form of it in which the questions involved come before the average man for his consideration.

B

Sec. 3. The current conception of the immortality of the soul has an ancient lineage, and in all probability was derived from, and as an extension and refinement of, the ancient animistic view which assumed the existence of a "spirit" that dwelt in a man's body during waking life, that left it temporarily during sleep, that might under certain conditions be displaced by some alien spirit when the man's body was said to be "possessed," and that finally left it for good and all at his death. Most naturally those who held what seems to us today so crude a view were led to assume that the spirit at death continued its existence outside of the body, as it was believed to exist apart from the body during sleep.

The derivation of the word spirit shows us that it was originally identified with the breath of life; and such an identification would for us be crassly materialistic. We are thus too ready to assume that those who first conceived the distinction between matter and spirit were thinking in terms of modern materialism.

When however we put ourselves in the place of the men of old we perceive that this warm, vital, breath must have seemed to them to be a type of existence entirely diverse from the hard, and ponderable, and measurable matter with which their daily activities made them familiar. And then we are led to see that in this ancient distinction we probably have the record of the primitive form of that introspective experience upon which are based all our more explicit idealistic systems, as these are distinguished from the materialistic.

That the word spirit does however retain something like a materialistic connotation among the less intelligent of our

own time cannot be doubted when we consider the still persisting belief in "ghosts," and in "astral bodies"; nor can the more intelligent be said to have freed themselves entirely from this materialism so long as they are content to describe the tenet of immortality as a belief in eternal *life*.

We may take it for granted nevertheless that most men of intelligence now-a-days will be unwilling to grant that they refer to anything of the nature of a material entity when they think of an immortal spirit; and we are therefore led to ask what meaning they actually do attribute to the word in this connection.

They will agree I think that the spirit of a man is an individual entity of a psychic nature; that its existence is evidenced during the life of the individual in connection with the activities of his body, both voluntary and involuntary; that its existence is not evidenced objectively during deep slumber; and that all direct evidence of its existence disappears with the stillness of death. But this description applies also to what we call consciousness, and I think that it must be agreed that when the average man who would cast aside the materialistic conception speaks of an individual spirit he refers to an individual consciousness, or to something within such a consciousness.

If he declines to agree, as he is very likely to do, that the spirit of a man includes what are usually described by psychologists as the presentations within the field of attention of the individual consciousness, then we must believe that he refers to what is commonly thought of in his self-conscious states as that to which these presentations accrue,—to what in ordinary life he identifies with that special complex presentation which we have described as the empirical ego, and which we have claimed to be a simulacrum of the non-presentable Self.

Or if he does not refer to this empirical ego as directly experienced, he refers to what we have called the conceptual

empirical ego, a concept based upon his experience in reflection of the revivals of successive empirical egos.

That we are correct in this view is shown in the fact, which cannot be questioned, that he refers to something that is of the essence of the individual's character as objectively viewed, and that is efficient in relation to his field of presentations in attention, and that has the attachment to the man's past conscious experiences which constitutes memory: all of which points to an identification of the "spirit" with the conceived empirical ego of the individual, the persistence of which during life is assured to the common man by his experience of the "sense of personal identity" in connection with his appreciation of successive empirical egos.

All this becomes clearer when we note that the common man has no interest whatever in any hypothetical monad-like entity, apart from the every day experience of life, such as the Self is held by some to be. We may as we have seen assume, if we choose, that the objectively judged alterations in the Self, as represented in the subjectively observed alterations in the empirical ego, are merely changing characteristics which cluster around what we may call a *quasi* punctual core: and may assume that this core continues to exist permanently; and that around it ever new characteristics may cluster to all eternity. But for such a metaphysical entity the common man cares nothing whatever. He will not even trouble himself to enquire whether he believes in its existence or not. What he asks for is the persistence of a *full blooded* thing, if we may so speak. What he wishes to have persist, so far as he himself is concerned, is the psychic entity that he finds bound up with his daily conscious experience; and as far as his friend is concerned, he wishes the persistence of that which is effective in the constitution of the active living individual, —appreciating thinking, loving, and striving.[1]

[1] Confer Wm. James, *Psychology*, i. p. 323. "But which of my spiritual selves do I really care for? My soul substance? My 'transcendental ego

We are therefore prepared to state our problem as follows. Can we properly hold that the empirical ego of a man, or his Self of which this empirical ego is a simulacrum, persists eternally? We thus again, and here very clearly, see that the theses maintained above as to the mutability of the empirical ego, and of the Self, have direct relation to the problem of immortality as it is held by the common man.

C

Sec. 4. But when we consider the nature of this supposed persistent entity which we thus identify with the empirical ego, and note how changeable the empirical egos of an individual man are, how interesting some, how distasteful others; and when we note further that many of our own empirical egos of the past are of so unsatisfactory a nature that in retrospect we set them over against what we call our "better selves": then we are led to enquire whether that which we desire to have persist is anything like an average of these experienced empirical egos. And rejecting this notion, as we must, we are led further to ask whether any one of these specific empirical egos of the individual in all its complexity is the one that we wish to have persist. And then we perceive that even the very best of these empirical egos, as viewed in retrospect if it is one's own, or as conceived of as existing in our friend, has in it, notwithstanding its perfections, something of evil or weakness which we would fain eliminate. And then taking a step further we see that the individual empirical ego which we desire to have persist eternally is one

or thinker'? My pronoun I? My subjectivity as such? My nucleus of cephalic adjustments? or my more phenomenal and perishable powers, my loves and hates, willingnesses and sensibilities and the like? But they, relatively to the central principle, whatever it may be, are external and objective. They come and go, and it remains,—'so stands the magnet, and so stands the pole.' It may have to be there to be loved, but being there is not identical with being loved itself."

that never in fact has actually existed, but is really an ideal which we have constructed from our experience of our own empirical egos in the one case, and from our conception of the varied empirical egos of our friends in the other case;—an ideal produced by the inclusion of all those qualities which in ourselves, or in our friends, we find satisfying and lovable; and by the elimination of all those unsatisfactory and unlovable qualities which in some measure attach to all our own experienced egos, and to each and every empirical ego of the friend whose individuality we wish to believe may persist eternally.

For what justification have we for assuming the persistence of the most perfect form of the conceived self as we imagine it to have existed in any given moment, rather than that of any other such conceived self which we must agree to have belonged, as it were, to the individual in whom we are interested? Why not hope for the persistence of the conceived self of the child's impulsive and ungoverned youth, or of the aged man's infirmity and senility, as well as for the persistence of the conceived self of the man in his prime, with all his characteristics of strength and lovableness, as we do? Why should we hope that this special phase of his individual existence which we delight to recall should go on developing to higher perfection through eternity, and close our eyes to the existence of the undeveloped and deteriorated conceived selves which have belonged to the same individual?

Sec. 5. To the difficulty above presented we find added one at least equally formidable if we ask ourselves what we mean by this *individual* entity which we desire to have persist; and if we come to the conclusion[1] that the term individual can have no meaning without an implicit recognition of a system in which the individual inheres;—that an individual entity is merely a special minor system within a broader system, which minor system is at the moment considered in

[1] Confer chapter vii. sec. 7.

and for itself: and if in addition to this we note the changeableness of systems in general, and the well recognized changeableness of psychic systems in particular; and then consider that this changeableness must alter the nature of the individuals within these systems in general, and in particular any individual existences within conceived conscious systems.

The difficulty in our attempt to clarify the conception here considered is emphasized most markedly however in connection with the view which we are here especially considering, according to which it appears that no noetic pattern can ever be exactly reproduced, that each must be new and unique; and that the Self, and the empirical ego, must in each moment be a new and unique Self, and a new and unique empirical ego.

Sec. 6. It would thus appear that the every day conception of the eternal existence of a human soul is found to be self contradictory, or devoid of meaning; and therefore that it can be truly said that the problem it sets for us lacks all significance from a theoretical point of view; so far as it relates to the conceptions considered in this book.

It may be true indeed, as I have suggested above, that the conception of the immortality of the soul may involve a truth which can only be properly considered from other than the psychological standpoint, and that when thus considered it appears self-consistent, and full of deep meaning. But if such be the case, then it seems to the writer that those who deal with this subject from these other than psychological standpoints should earnestly endeavor to gain a re-expression of their conception in a form which will not be self-contradictory, and which will differentiate it from the conception of the common man which we here consider. For it is clear that the doctrine of immortality as it is held by the average man, whether he be unlearned or of high intellectual training, is one which is bound up indissolubly with the psychological conceptions which we have been concerned to study; and

equally clear that these psychological conceptions when critically examined show us that the conception of the eternal existence of a human soul involves contradictions which lead us to the conclusion, as I have just said, that the problem it sets for us is from our standpoint meaningless, and without theoretical significance.

D

Sec. 7. The position we have thus reached cannot be accepted however without taking cognizance of certain important considerations other than those thus far noted; for it is impossible to read with care the pages of religious and ethical history without being convinced that this doctrine of the immortality of the soul has had, as it still has, the most momentous practical significance in relation to the development of mankind. Not only has the conception a nobility which thrills many a man; but beyond this it has served, and still serves, to ennoble the lives of many who otherwise might question whether in truth this life is worth living.

In what follows I shall hope to show that although the studies we have made lead us to see that this conception is unsatisfactory; yet that on the other hand they give us ground for holding all the more firmly to that in this conception that is noble and ennobling; and that we may therefore hope that we have taken a step in the process of the re-expression of truth, as humanly conceived; and that we have gained a conception that may possibly be found to be a nearer approximation, than that abandoned, to what we may describe as the Real Truth.

Sec. 8. Those who see the value to man of this conception of immortality tell us that they cling to it in the main for four reasons.

α. Because, without it the enforcement of moral responsibility would be difficult, or even impossible.

β. Because, without it the maintenance of a belief in the

prevalence of Justice in the universe would be impossible; this belief being, from an ethical point of view, especially important to foster.

γ. Because it leads us to look forward to a future life in which our ideals may be realized, in which the sinfulness and folly of this human existence may be replaced by righteousness and wisdom.

δ. Because it enables us to look forward to the influence upon us in the eternal future of the characters of those who have influenced us to our advantage and joy in this ephemeral life.

Let us consider each of these points in their order.

α

Sec. 9. It is true that the enforcement of moral responsibility has been greatly aided in the past by the teaching that hidden sin will be punished, and that unrecognized holiness will be rewarded, in an eternally existing world to come. But it is evident that in our day the terrors of hell, and the bliss of heaven, have lost their influence upon the more intelligent of mankind; and that the pressure exerted in the past upon men by these conceptions in relation to the development of moral qualities is lacking today: so much so indeed that if we were convinced that man's moral advance were really dependent upon the prevalence of the belief here studied we might well despair of the future.

Such despair, however, is to my mind altogether unwarranted; for I cannot but believe that the diverse conceptions developed in the course of our study of the real basis of individual responsibility in Part I. of this chapter, or kindred conceptions, will take the place of that influence which has been lost through the weakening of the motives, so powerful in the past, which were determined by the somewhat ignoble fear of pain, and longing for pleasure, in a future life.

That the insistence upon what we have called objective

responsibility as formulated in our legal systems is warranted, and that, if the views here maintained are valid, the law involving this insistence upon responsibility may be administered more consistently than is generally the case today, has I think been shown in the preceding pages just referred to. But here we are concerned mainly with the development of that inner sense of responsibility which is of such great importance to the ethical development of the individual: and it seems clear to me that the obligation to yield to the call of duty, to avoid sin and to search after righteousness, must necessarily be strongly enforced by such a view as that already maintained, viz. that the nature of each moment's Self of an individual, new and unique though it be, is what it is because of the previous existence for the individual of all its past Selves; and that the nature of all future Selves of the individual must necessarily be influenced by the act of the man's Self in any moment under consideration. This means essentially what is meant by the usual conception of moral responsibility; viz. that the present Self of any man in any given moment must bear the burden of guilt, or enjoy the credit of righteousness, due to the nature of the acts of the individual in the past; and that the individual's future Selves will bear the burden, or enjoy the credit, due to the nature of the present act of the Self.

I cannot but believe that the influence of such a conception of subjective individual responsibility as that here suggested is likely to prove a stronger incentive to the development of a high moral standard among the thoughtful men of the future, than was found by their more ignorant forefathers in the fear of eternal damnation, and the longing for ever continuing bliss.

β

Sec. 10. Let us now turn to our second point made in Sec. 8.

The belief in immortality has without doubt, as we have

just seen, strengthened the sense of moral responsibility by teaching the individual that punishment for his sin, and reward for his right living, are certain to be given in a future life. But it has had a value beyond this for those who take a broader view of life, and who see distress and injustice dealt out to men who have not sinned in manners which seem to us to call for retribution in the form of bodily pain, or loss and misfortune. As President Arthur T. Hadley[1] well says: "To a nation with a conscience the Gods of mythology give place to a God of righteousness. From this point it is but a short step to rationalism itself; to a time when men begin to judge God by their own laws. A people which had reached the stage of Jewish morals in the time of Nehemiah could not wait long before developing the Pharasaic rationalism of the centuries before the Christian era. The obvious inequalities of justice that troubled them forced them to the doctrine of immortality as the only means by which the goodness of God could be vindicated,—not the vague immortality of the tribal religions, but a system of immortal rewards and punishments whereby the glaring injustice of this world should be corrected in another."

That the doctrine of a readjustment of rewards and punishments in a future world has in the past had much to do with the persistence of the morally helpful belief in the prevalence of justice in the universe cannot be questioned. Without such a belief many a man of low intelligence would be led in his despair to throw off all restraint and live for the moment's gratification. But when we consider this point with care it becomes apparent in the first place that this rationalistic conception of the working of God's laws involves, as of essential moment ethically speaking, a comparison of the working of these laws with the individual's ideals of justice and righteousness. And this may properly be interpreted to mean that the fundamentally important moral

[1] *Ethics as a Political Science*, p. 116.

element in connection with this belief lies in the fact that it involves the concentration of the individual's thought upon his ideals of justice and righteousness, and in the fact that this leads to a strengthening of the hold upon him of these ideals, which in turn affect his actions in relation to his fellow men.

But men of the type for whom I write will surely need no such pressure upon them as that given by the dread of punishment, or the hope of reward, in another world, to lead them to cling to their ideals of thought and practice. We know that these ideals are the individual's mental constructs, conceptions which are formed in us by the nature of our characters as these are influenced by the powers within the universe: and we have a conviction that these ideals of ours, faulty though our descendants may think them to be, are based upon real situations and conditions in the universe, and are approximately true expressions of these situations and conditions. We need no such pressure as that given in connection with a belief in a future hell or heaven to teach us, as all the higher religions have taught, a humble trust in the righteousness which governs the universe; and we feel full warrant for our belief that the higher ideals which are given to us point the way to a fuller realization in our daily life of this universal righteousness.

Beyond this, if we accept the view[1] that a universal consciousness exists, in which our human consciousnesses are as it were elemental; we see that, as in our microcosmic bodies pain in, and curtailments of the normal functioning of, the parts is necessary at times if the health of the body as a whole is to be maintained; so we are ready to believe that the individual's pains and misfortunes, which often seem so undeserved, may be equally necessary to the development of the fuller life to which corresponds the universal consciousness.

[1] Confer chapter vii., especially the last part.

γ

Sec. 11. We are carried thus naturally to the consideration of the third reason given by those who maintain the value of the commonly accepted conception of immortality. We long for an assurance that the movement of affairs in this world in which we think ourselves efficient is to lose none of our helpfulness when we die. We loath the thought that the influence we exert in this life is to cease at death.

But it is apparent that the moral significance of this longing for a continuance of our efficiency lies in the fact that it is coordinate with the persistence and strengthening of our ideals; and, as we have seen in the preceding section, our enthusiastic and devoted effort towards the realization of our ideals is not dependent upon the influence upon us of any such pressure as is given by the doctrine of immortality here considered.

And beyond this we recall that in connection with our view we must necessarily believe in the persistence of the influence of our acts through the eternal future, although in a sense somewhat different from that believed in by the common man. For as we view ourselves as parts of the universe it seems impossible to believe that the world, after the efficient activity of a human Self, can be the same that it was before this activity occurred; or that the influence of such action of a Self can ever be lost while time itself exists. We are led thus to the conviction that such efficiency as we have exerted towards the realization of our ideals in this life will certainly persist to all eternity.

δ

Sec. 12. We may now turn to the consideration of that enforcement of the common man's belief in immortality which is due to his longing for the continued influence upon him of the lives of his loved companions who have slept the sleep

of death. No one can exaggerate the comfort that has been given to those in sorrow by the belief in the immortality of the soul; nor can one over estimate the value of this belief in the courage to live effective lives that it has given to those who mourn, notwithstanding the loss of those upon whom they have been accustomed to lean.

It is difficult for one who has suffered thus deeply to treat the data in relation to the problem before us with logical fairness; the ground upon which we tread is sacred for most of us, for none more so than for the writer of these lines. Nevertheless I think we are bound to agree that the desire for an immortal life for those of our loved ones who have left us is largely given in answer to demands of our emotional life, rather than to demands of the intellect: and we, from our present standpoint, must endeavor to deal with the subject before us, not as a matter of sentiment, but as a matter of reason.

When we take such an attitude we at once see that what we long for is the continuing influence of an ideal life; and that this ideal life is a *conception* of a life which was yesterday enforced by a bodily presence, with all its expressive activities, but which today is not thus enforced. And then it becomes apparent that this ideally conceived life is a special item within the thinker's field of attention; and that the persistence of the influence of this ideally conceived life is what we wish for; and that this persistence may be gained provided the nature of that ideal life is maintained in our thoughts, and is allowed to influence our active life, even though its physical embodiment no longer affects our daily experience.

As with our own Selves, so with the Selves of our loved companions, no efficiency that was once theirs can ever be lost; and if this remain to me in the guidance of my life I may truly say that it is here, and now, real for me; that I need not wait for a future life in which I may commune with my friend who has died; that he, in all that was of his essence

for me, is with me still, as a real influence, as part of the eternal that ever envelopes us.

For me, as a conscious living being, what is the significance of this conception of the immortality of another soul except as it results in a satisfactory and effective experience *for me*? If my experience as such disappears at my death, then this recurrent concept of the immortal ego of the one I loved will truly dissolve away also. But surely that life which the world says is gone lives for me while I live, so long as its influence governs my thought and act; if this influence persists its gracious life is with me still. Upon my own Self depends its life for me. If with my death it, as it was for me, will disappear; still while I live and answer to its influence, so much of it as was of the Eternal is mine. I do not have to wait for some future time for its realization; it is mine now and here. And beyond this it does now, and will in the future belong to others while they live and answer to its influence: and when I die, so much of my Self as is of the Eternal will join with it in that future of efficient influence which we short-sighted creatures call the realm of Death.

Sec. 13. We have thus considered the principal reasons why men of our type cling to the current conception of immortality. There is however a further reason of a more intricate nature which appeals with force to many men, and which we must briefly consider in closing this chapter.[1]

Our close students of the philosophies of the East, in which the conception of the immortality of the soul is unrecognized, or unimportant, note that those who are bred under their influence come to look upon the life of the individual as of relatively small importance. To them therefore perhaps the most striking point in connection with the teaching of

[1] I am indebted to Dr. Geo. W. Knox for having drawn my attention to this point.

Christianity is the stress it lays upon the conception of immortality; and the significance it gives to the life of the individual, in the fact that the individual soul is looked upon as an entity destined to persist to all eternity in certain relations with an ever living God, the nature of these relations being largely, if not wholly, determined by the attitude of the individual soul towards God during the course of his earthly existence.

Now evidently such a view as to the importance of the individual soul carries with it certain moral values which are of the highest importance. 1st, It must lead to an emphasis of the individual's sense of responsibility for his deed, and for the motive which inspires it. 2nd, It must lead to effort on the part of the serious believer to perfect his character. 3rd, It must lead him to take a fuller and more sympathetic interest in his fellowmen who are dignified, as he himself is dignified, by the assumed eternally existent relations with God.

Clearly then the convert from the indifferentism and fatalism of the Eastern manner of thought must find in the Christian doctrine of immortality an incentive to earnestness in his life; and to thought concerning the propriety of his own conduct, in itself and especially as it is related to those with whom he comes in contact: and as clearly these same influences must have been felt by those of our own race to whom this belief has come as an heritage from their forefathers.

And here again we are led to ask whether any or all of these valuable moral influences are to be lost if we find ourselves forced to hold that the doctrine of the immortality of the soul is self-contradictory.

We have already shown in Sec. 9 above that our sense of responsibility is not dependent upon a conviction that the Self is to exist to all eternity; and that the sense of responsibility is not weakened, but is rather strengthened, if we take the view of the nature of consciousness and of the Self which

we have maintained: we may therefore turn at once to the consideration of the second and third points made above.

And then we are led to ask whether from our point of view we find ourselves without as great incentives to earnestness in the effort to perfect our own characters, and to deal sympathetically with our fellowmen, if we are led to abandon the current doctrine of the immortality of the soul. I think not. Holding that the nature of each individual Self in each moment is certainly efficient in the determination of the nature of all other Selves which in future are to belong to the same individual, we have to my mind the very strongest of incentives to avoid error and sin, and to strive towards perfection of motive and act.

And evidently again this striving on the part of the individual for perfection of motive and act must necessarily bring into prominence his relation with other Selves than his own; which other Selves are recognized to be also efficient in the production of future Selves in connection with their individual bodies which are brought into such close social relations with his own. He who strives earnestly to perfect his moral life must necessarily have forced upon him the importance of his sympathetic impulses; cannot but hold his fellowmen in high esteem; cannot but find himself impelled to help them to gain such moral insight as has been granted to himself.

Sec. 14. It would appear then that in no sense are the incentives to earnestness in effective living lost to those who find themselves failing to depend upon the doctrine of the immortality of the soul: that all the values for life that are commonly associated with the acceptance of that doctrine are fully maintained if we accept those views as to the nature of consciousness, and of the Self, which show us that this doctrine of immortality, as currently held, is self-contradictory and unsatisfactory.

E

Sec. 15. It must be evident to the reader that an adequate appreciation of the positions taken in the immediately preceding divisions of this chapter must necessitate a comprehension of the conceptions upon which they are based, and which have been studied in the preceding chapters of this book; and equally evident that the average man who is not instructed in the technical subjects upon which these conceptions rest must fail to grasp their meaning. It follows then that the re-expression of the truth which I hope I may here have made must almost certainly be misunderstood and misinterpreted if it is brought to the notice of the common man, and even of the man of average broad education.

Moreover, I think I have shown that, from our standpoint, what is of the essence of the doctrine of immortality, as it is commonly held, is true; even though we are compelled to hold that the doctrine itself is but a very crude and inadequate expression of the full truth. It thus appears that the doctrine as commonly held, with all its value, may properly be allowed to stand without opposition, and without effort to replace it in the thought of men as a whole, who as they gain a deeper insight into the nature of what they call soul life will themselves naturally attempt some such re-expression of the truth involved in the doctrine as I have aimed here to give. The belief in the immortality of the soul has given countless men courage to do right; has assuaged the grief of unnumbered millions; and may still bestow these same benefits upon vast numbers of our descendants before they are capable of gaining new conceptions which, while bringing equal benefits, are more clearly true.

Moreover, as I have said in the opening sections of this chapter, one cannot but face the fact that his own attempted re-expression of a truth is all too likely to prove inadequate. We cannot forget that we are here looking at the subject

before us from a very special point of view, and that the doctrine of the immortality of the soul may have significance beyond the realms of realness with which our thought has been concerned; may have values which are not touched by the considerations we may properly present.

For these reasons I feel that we may well allow the average man to cling to the doctrine of immortality as he commonly holds it,—may well avoid all efforts to reduce his confidence in this belief,—without feeling that we lack courage to face the danger of misapprehension and distrust which must come to those who attack conceptions which are cherished by the majority of the noblest men who live; and which in the very fact that they have persisted long, and have yielded much of value to men, must be held in some measure to express the truth.

FINIS.

INDEX

Aesthetic pleasures, 382.
After-images, 68, 114.
Algedonic quality, 243 ff.
  and association, 389.
  „ attention, 383 ff.
  „ empirical ego, 512 f., 584 f.
  „ "feeling," 265, 515, 591.
  „ intensity, 371 ff.
  „ manifoldness, 380 ff.
  „ object-subject relation, 403 ff.
  „ realness, 395 ff.
  „ The Self, 584 f.
  „ subjectiveness, 514.
  „ time, 309 ff.
Anaesthesia, 170.
Angell, J. R., 107, 494.
Anticipation, 431.
Apperception, 31.
Aristotle, 180.
Assimilation, 30, 94, 323.
  and object-subject, 350 f.
Association and pleasure-pain, 389.
  of ideas, 335 ff.
Attention, 313 ff.
  and empirical ego, 507 f., 559 f.
  „ "feeling," 508.
  „ object-subject, 365 ff.
  „ pleasure-pain, 383 ff.
  „ empirical ego, 325 f., 559 f.
  „ The Self, 325 ff., 559 f.
  „ time, 416.
  divided, 331.
  fixation of, 331 f.
  maintenance of, 329.
  movement of, 335 ff.
  muscular sensations of, 331 f.
  relativity of, 333.
  voluntary, 325, 561.
Attention-Experience, 314 f.
Avenarius, 122.
Aversion, 132 f.
  and pleasure-pain, 135 ff.

Back-stroke sensations, 109.
Bagehot, 355.
Bain, 1, 86, 137, 218, 354, 384, 445, 498.
Baldwin, J. Mark, 227, 360, 511.
Beauty, 405.
Belief, 350 ff., 571.
  and emotion, 354.
  „ expectation, 409, 436 f.
  „ "feeling," 355, 577.
  „ imagination, 571.
  „ memory, 436 f.
  „ time, 436 ff.
  „ will, 352 ff.
Bentley, 198.
Bergson, 436.
Berkeley, 118, 149.
Bethe, 164.
Binet, 170.
Bosanquet, 80, 597.
Bradley, F. H., 71, 117, 136 f., 139, 146, 227, 231, 292, 364, 442, 453, 458, 468, 527, 529 f., 547, 551, 622, 649, 656.
Brentano, 352.
Browne, 71.

Calkins, 90, 118, 127, 241, 355, 469, 483, 594, 620.
Character, 541.
Christian Science, 233, 400.
Clay, 276, 291, 423.
Clearness, 196 f., 315 f.
Co-consciousnesses, 158, 171, 617.

Co-egos, 617.
Co-selves, 617.
Coma, 169.
Comparison, 61 ff.
Conation, 324 ff., 547 ff.
Concepts, 116.
Consciousness, definition, 1.
"effective," 162.
limits of human, 169 f.
of animals, 148 f.
of plants, 166.
other than human forms of, 148 ff.
relativity of, 334.
social, 173 f.
sub-attentive, 20 f., 171.
subliminal, 171.
threshold of, 206.
universal, 180 f.
Consciousnesses, disconnected, 152 f.
elemental, 160 ff.
minor, 152 f.
more complex than human, 173 ff.
simpler than human, 148 ff.
Coordinative states, 113 ff.
Cravings, 130 f.
Cycles, 8.

Day-dreaming, 400, 450.
Delboeuf, 211.
Descartes, 181.
Desire-aversion, 132 ff.
and expectation, 139 ff.
„ pleasure-pain, 135 ff.
"Ding an Sich," 581.
Doubt, 357.

Edwards, Jonathan, 645, 651.
Effort, feelings of, 145.
Emotions, 106 ff.
and empirical ego, 520.
„ "feeling," 495 ff.
Empirical ego, 4 ff., 35 ff., 469 ff., 480 ff.
and algedonic quality, 512 f., 584 ff.
„ attention, 507 f., 559 f.
„ emotions, 520.
„ intellect, 520.
Empirical ego
and intensity, 507, 555 f.
„ manifoldness, 506, 555 f.
„ realness, 509 f., 566 f.
„ sensation, 487, 519.
„ spatial quality, 521 f.
„ time, 516 f., 591 f.
efficiency of, 214, 220, 238, 302, 325 f., 350 ff., 390 f., 407 f., 419 f., 434 ff., 546 f., 555 ff.
mutability of, 596 ff.
relation to object, 537 ff.
unrealness of, 347 f.
Error, 654 ff.
Evil, problem of, 399.
Expectation, 139, 409, 436, 451 f.
illusions of, 453 f.

Familiarity, 429 f.
Fancy, 367, 400.
Fechner, 166, 180, 207, 211.
"Feeling," 491 ff.
and attention, 508.
„ belief, 577.
„ emotions, 495 ff.
„ intensity, 507, 557.
„ manifoldness, 507, 557.
„ perception, 512.
„ pleasure-pain, 265, 497 ff., 515, 591.
„ realness, 511.
„ sensation, 495, 521.
„ spatial quality, 523.
„ subjectiveness, 500 ff.
„ time, 518, 595.
„ volition, 552.
"Feelings of effort," 145.
Freedom, 640 ff.
of will, 640 ff.
"Fringes"-temporal, 271 ff., 296.
Fullerton, 64, 149, 645.
Futureness, 288 ff.
and attention, 418 f.
„ realness, 430 f.

Gardiner, H. N., 244.
General Qualities of Presentations, 189 ff.
revivability of, 466 ff.
Gildersleeve, B. L., 235, 361.

Habit and volition, 564.
Hadley, Arthur T., 642 f., 645 f., 671.
Hallucinations, 367, 580.
Hamilton, 8, 354.
Herbart, 482.
Hobbes, 71.
Hodgson, Richard, 187.
Hodgson, S. H., 53, 77, 417, 419, 550 f., 597.
Hoernle, 117.
Höffding, 87, 339, 458.
Horwicz, 512.
Hume, 67, 137, 149, 234, 306, 482, 596, 645.
Hypnotism, 533, 606.
Hyslop, 642.

Idea, nature of, 67 f., 113 ff.
Ideas, innate, 93.
Illusions of expectation, 453 ff.
„ memory, 445 ff.
Images, 67 ff.
Images, not sensational, 67 ff., 117.
Imagination, 367.
and memory, 449.
„ belief, 571.
Immortality, 659 ff.
Impulse, 129 ff.
Inattention, field of, 20 f., 318.
Indifference, 246, 259 f.
Individual, definition of, 185.
Inhibitive states, 129 ff.
Innate ideas, 93.
Instinct-actions, 103 f.
„ -experiences, 103 f.
Intellect, and empirical ego, 520.
Intensity, 192 ff.
and algedonic quality, 371.
„ empirical ego, 507, 555 ff.
„ "feeling," 507, 557.
„ manifoldness, 304, 313 ff.
„ realness, 305 f.
„ Self, 555 f.
„ time, 411 f.
discernment of, 202 ff.
transformations of elemental, 200.
Interest, 390 f.
Irons, David, 107.

James, William, 1, 36, 52, 54, 57, 62, 67, 106, 109 f., 118, 123 f., 132, 145, 188, 218, 226, 231, 235, 274, 290, 306, 321, 326, 334, 353 f., 357 f., 363, 399, 439, 482 f., 484 f., 493, 519, 532, 563, 571, 578, 597 f., 621, 664.
James-Lange emotional theory, 109 f.
Janet, Pierre, 23, 604.
Jennings, H. S., 150, 165.
Judd, 124.

Keller, Helen, 93.
Knox, Geo. W., 675.
Külpe, 100, 247 f., 331, 465.

Lange, 109.
Laurie, 491, 505.
Lehmann, 137.
Leibnitz, 180.
Lewes, G. H., 13, 31.
Libby, 164.
Likeness, 61 f.
Locke, 71, 93, 113, 146, 149, 549. 621, 646.
Loeb, 27, 88, 162 f., 164.
Lotze, 36, 68, 180, 484, 531, 609.

MacDougall, Wm., 27, 330.
McGilvary, 628.
Mach, 316.
"Make-believe," 367, 401, 450, 452.
Malebranche, 149.
Manifoldness, 215 ff.
and algedonic quality, 380 ff.
„ empirical ego, 506, 555 f.
„ "feeling," 507, 557.
„ intensity, 304, 313 ff.
„ realness, 307 f., 344 ff.
„ Self, 555 f.
„ time, 412.
Martineau, 137.
Maudsley, 2, 8.
Meaning, 117.
Memory, 436, 438 ff.
and imagination, 449.
„ illusions of, 445 ff.
„ storage theory of, 442.

Meyer, Max, 100, 245.
Mill, Jas., 67, 71, 118, 137, 353, 592.
Mill, J. S., 62, 137, 353, 437, 516, 571, 579, 621.
Miller, Dickinson S., 363.
Morgan, C. Lloyd, 105, 208.
Multiple personality, 604 ff.
Münsterberg, 294.
Mutability of empirical ego, 596 ff.
of presentations, 53 ff.
of Self, 613 ff.
Myers, Fredk., 187.

Neururgic, definition, 8.
and noetic correspondences, 12 ff.
„ patterns, 18 f., 47.
Nichols, Herbert, 277.
Noetic, definition, 8.
Noetic emphases, see Presentations.
Noetic patterns, 19, 48.

Objects, 5.
Objects-in-the-outer-world, 5.
realness of, 234.
Object-subject relation, 344 ff.
and algedonic quality, 403.
„ attention, 365 ff.
„ time, 431 f.

Pain, 243 ff.
and inefficiency, 250 f.
intellectual, 246.
not an emotion, 246.
not a sensation, 100, 244 f.
of restriction, 266 ff.
physical, 100 f.
problem of, 399.
subjectivity of, 382, 514.
Pastness, 282 ff.
and attention, 417.
„ realness, 427.
Paulsen, 166, 180.
Perception and "feeling," 512.
Percepts, 115, 578 ff.
Personal identity, 619 f.
Pessimism, 388.
Pfeffer, 211.
Phillippi, 170.
Pillsbury, 195, 316f., 326, 385, 394.
Plato, 180.
Pleasure, 243 ff.
aesthetic, 382.
and efficiency, 250 ff.
intellectual, 246.
not an emotion, 246.
not a sensation, 100 f., 244.
of rest, 268.
physical, 100 f.
subjectivity of, 382, 514.
summation of, 382.
Presentation continuum, 34, 85, 92, 475, 528.
Presentations, general nature of, 189 ff.
disparateness of, 46 ff., 97 ff.
each is *sui generis*, 49.
mutability of, 53 ff.
primary and secondary, 67 f.
Presentness, 290 ff.
and attention, 417.
„ realness, 424 f.
Primary presentations, 67 f.
Prince, Morton, 158, 169, 604, 615 f.
Psychical research, 187, 448, 607.

Reactive states, 102 ff.
Reality, meaning of, 227, 357.
sense of, 227.
"feeling," 227.
Realness, 221 ff.
and algedonic quality, 395 f.
„ empirical ego, 509f.,566 f.
„ "feeling," 511.
„ futureness, 430 f.
„ intensity, 305 f.
„ manifoldness, 307 f., 344 ff.
„ pastness, 427 f.
„ presentness, 424 f.
„ Self, 566 f.
„ time, 422 f.
Recurrence, 86 f.
Reflex action, 94 f.
Reid, 68.
Relation, senses of, 51 f., 117 ff.
Representation, 66 f., 80 ff.
Responsibility, 623 ff.

Retentiveness, 59 ff.
Revivability of general qualities, 466 ff.
Robertson, Croom, 360.
Rogers, R. A. R., 419.
Royce, Josiah, 54, 109, 127, 184, 199, 273, 276, 327, 339, 367, 441, 488, 503, 548, 597.

Santayana, 9, 181, 405, 514.
Schelling, 180.
Schopenhauer, 180.
Secondary presentations, 67 ff.
" " continuum, 92, 339 f.
Self, The, 4, 35 ff., 469 ff., 524 ff.
and algedonic quality, 584 f.
" attention, 559 f.
" empirical ego, 469 ff., 532 f.
" intensity, 555 ff.
" manifoldness, 555 f.
" realness, 566 f.
" time, 591 f.
as conservative, 536, 576.
development of, 622.
efficiency of, 142 f., 214, 220, 238, 268, 302, 325 f., 350 ff., 390 f., 407 f., 419 f., 434 f., 552, 555 ff., 558.
mutability of, 613 ff.
relation to presentations, 537 ff.
Self consciousness, 4, 35 f., 472 f., 480 ff.
and the Self, 35 f.
Sensation, and empirical ego, 487, 519.
and "feeling," 495, 521.
Sensations, The, 98 ff.
Senses of relation, 51 f., 117 f.
Sentience, 162.
Shand, 314.
Sherrington, 101.
Sidgwick, H., 137, 178, 657.
Sidis, Boris, 98, 128, 195, 580, 605.
Sin, 654 ff.
Sleep, 169 f.
Smith, Norman, 122.
Smith, Walter, 359, 427.
Social consciousness, 173 f.
organism, 173 f.
Soul, 662 f.
Soul life, beginning of, 166 f.
Space, and social relations, 126 ff.
Spatial Quality, The, 121 f.
and empirical ego, 521.
" "feeling," 523.
"Specious present," 276, 291, 423.
Spencer, Herbert, 179, 262, 390 f., 407 f., 589, 628.
Spiller, 23.
Spinoza, 180.
Spirit, 662 f.
Spiritism, 187.
Stephen, L., 137.
Stout, 8, 16, 30, 67, 72, 89, 110, 115 f., 120, 123, 184, 202, 272 f., 322 ff., 325 f., 332 f., 352, 354, 360, 362, 386, 392 f., 412, 417 f., 453, 548, 571, 578, 594.
Strong, C. A., 650.
Stumpf, 100, 123, 218, 245, 247 f., 316, 392, 465.
Sub-attentive consciousness, 20 f., 171.
Sub-conscious, 171.
Subjectiveness, and "feeling," 500 ff.
and pleasure-pain, 383, 514.
Subliminal consciousness, 171.
Sully, James, 68, 137, 332, 341, 354, 384, 393, 417, 453, 516, 594.

Tawney, G. A., 492.
Threshold of consciousness, 206
Tichener, 193, 195, 247 ff., 315 f.
"Time fringes," 274, 296.
Time Quality, The, 269 ff.
Time and algedonic quality, 309 f.
and attention, 416 f.
" belief, 436 f.
" empirical ego, 516 f., 591 f.
" "feeling," 518, 595.
" intensity, 411 ff.
" manifoldness, 412 ff.
" object-subject relation, 431 f.
" realness, 424 ff.
" Self, 591 f.
stream, 274 f.

Ugliness, 405.
problem of, 399.
Unconscious cerebration, 2, 96, 171.
Unconsciousness, 169 ff.
Universal consciousness, 180 ff.
Unlikeness, 61 f.
Unreasonable action, 654 ff.

Vividness, 196, 316.
Volition, 549 ff.
Volitional act, 112, 142 ff.
Volition and "feeling," 552.
and habit, 564.
irrational, 654 ff.
Volkmann, 137, 384.
Voluntary action, 142, 325 f.
attention, 325 f., 561.

Waitz, 137.
Waller, A. D., 211.
Ward, James, 22, 34, 59, 61, 65, 68, 81, 85, 90, 123 f., 134, 218, 272 f., 289, 292, 386, 439, 453, 467, 493, 497 f., 501 f., 517, 528, 593, 622.
Weber's Law, 207, 373.
Will-act, 112, 142 f., 325 f.
Will, 549 ff.
and belief, 350 ff.
„ rationality, 654 ff.
freedom of, 641 ff.
Wilson, H., S. 57.
Witmer, 98.
Wodehouse, 354.
Woodbridge, F. J. E., 1.
Woodworth, R. S., 117 f.
Wundt, 200, 211, 316, 372 f., 502.

GLASGOW: PRINTED AT THE UNIVERSITY PRESS BY ROBERT MACLEHOSE AND CO. LTD.

By HENRY RUTGERS MARSHALL, M.A.

PAIN, PLEASURE, AND ÆSTHETICS

An Essay concerning the Psychology of Pain and Pleasure, with special reference to Æsthetics. 8vo. 8s. 6d. net.

When Mr. Marshall first undertook the study of the theory of art, many years ago, he was impressed by "the emphasis of pleasure attainment in all descriptions of art works," and by the emphatic pleasurableness of his own mental state during the contemplation of artistic productions. His thought being thus turned to the consideration of the relation of æsthetics to hedonics, he was led to make a careful study of the psychology of pleasure, and of its correlate pain. The results of this study are given in the present volume.

NATURE.—"There is good stuff in the work, and the author is evidently well up in the literature of his subject. . . . The book is written in the right spirit and on right lines."

MR. BERNARD BOSANQUET in the *PALL MALL GAZETTE*—"I have found the book extremely interesting. . . . In all respects Mr. Marshall's book will be found stimulating, and in many it corrects popular misapprehensions."

PROF WILLIAM JAMES, in *THE NATION* (*U.S.A.*)—"It may well be said that Mr. Marshall's essay is the most successful of all yet published attempts to conceive our pleasures and displeasures under something like a single point of view. . . . No previous writer has given a general formula which covers anything like the same amount of ground. Acquaintance with Mr Marshall's work will be indispensable to every future student of the subject. His own learning is admirably complete; we cannot name any modern author of consequence of whose writings he has not taken account. The modesty of his tone is also remarkable, considering that his mental temperament is 'radical,' and that he is fighting for a creation of his own. Apart from its special topic, too, the book is full of shrewd and original psychology. All these qualities render it almost 'epoch-making' in the present situation of science."

ÆSTHETIC PRINCIPLES

CROWN 8vo. 5s. net.

MR. MARSHALL does not, in this volume, attempt to cover the whole subject discussed in his former work "Pain, Pleasure, and Æsthetics," but sketches out the results which are of the greatest interest and most practical value in reference to the study of Æsthetics from the varying points of view of the observer, the artist, and the critic. The book is intended not so much for the scientific psychologist as for less critical readers.

MIND.—"Mr. Marshall has done well to follow up his larger work, 'Pain, Pleasure, and Æsthetics,' by this interesting little volume. We are much in need of a good introduction to Æsthetics, and Mr. Marshall's conception of the subject lends itself on the whole to a popular treatment. . . . The work is clearly and pleasantly written and should aid artists as well as amateurs and critics in getting clearer ideas of the aims of art and of the limitations under which it works."

ACADEMY.—"A work which is full of sound and stimulating thought."

NATION (*U.S.A.*).—"The text is briefly and clearly written, and gives the results, and something more, of the investigations which the author has already published in more technical form, and which we reviewed a year ago. It has, therefore, every claim on the attention of those interested in the science of beauty, if we can speak of the science of so elusive a thing. . . . The principles of art criticism that follow from Mr. Marshall's æsthetic theory seem to us admirably wise and liberal. They are, moreover, very modestly stated by the author, whose book, we repeat, has an importance much greater than its bulk."

LONDON: MACMILLAN AND CO., LTD.

By HENRY RUTGERS MARSHALL, M.A.

INSTINCT AND REASON

An Essay concerning the relation of Instinct to Reason, with some special study of the Nature of Religion.

8vo. 12s. 6d. net.

EXTRACT FROM THE PREFACE

THE writing of this book was first undertaken because I wished to present the conception of Religion which will be found below. In attempting to make my argument convincing I have found it necessary to deal with questions which did not at first appear to relate to the subject I wished to discuss, and the study of Religion thus appears as a subsidiary part of the broader treatment of Instinct and Reason; the reader will readily perceive, however, that it still remains the most important and most interesting matter considered.

It has long seemed to me evident that activities which are so universal in man as are those which express our religious life, cannot fail to be of significance in relation to our biological development, especially as these activities have persisted for so many ages in the human race. I have, therefore, attempted to outline a theory which will account for the existence of religious activities, and which will explain their biological import.

ATHENÆUM.—"This is a noteworthy and in some respects an important contribution to the sempiternal question of the relation between the rational and instinctive sides of man's nature. Mr. Marshall has given it a more special interest by concentrating his line of argument upon the question of the nature and validity of the religious instinct. His contribution, therefore, appeals not alone to the psychologist, but to the student of natural theology, and still more to the general student of thought, if any such remain in these days of specialization. . . . This abstract of a very complex line of argument will perhaps be sufficient to indicate the novelty and some of the force of Mr. Marshall's contribution to the higher thought. In detail he may have been anticipated by many thinkers and psychologists of recent days; but taken altogether, his line of argument is original, and cannot fail to have an influence on contemporary speculation. It will not be altogether satisfactory to the theologian to find even the higher impulses based to a certain extent on illusion. The philosopher, on the other hand, will scarcely remain satisfied with the position that religion is a higher development than reason, but both must recognise the force with which Mr. Marshall puts his new contentions, and the skill with which he connects them with some of the most puzzling phenomena in the mental development of the race. Altogether this is a notable book, which cannot but have an effect on contemporary speculation."

WESTMINSTER REVIEW.—"The work contains much that is informing and deserving of careful consideration"

SCOTSMAN.—"An extremely interesting and suggestive essay on some of the deepest problems of modern thought."

GLASGOW HERALD.—"The book is a wide and well-informed discussion of an important subject."

LONDON: MACMILLAN AND CO., LTD.