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STUDIES IN PHILOSOPHY
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STUDIES IN PHILOSOPHY AND PSYCHOLOGY

BY

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INTRODUCTION

THE order of the papers in this volume is in the main that in which they were written; the psychological papers are grouped at the beginning, and the chronological arrangement is sometimes interrupted to bring together papers with closely related subjects. I have placed the paper on Memory out of its proper order because I wanted to make clear at the outset the distinction between immediate experience and thought.

I have republished the Herbartian article because the Herbartian Psychology is at least of great historical interest, and there is no other tolerably full account of it in English.

None of the other papers is historical. Some of them, such as that on *Things and Sensations*, do not represent my present position, but they all contain views which, in my opinion, ought to be considered before they are rejected.

The treatment of *Conation and Mental Activity* is misleading in one important respect. My language seems to imply that the action of the self is or may be purely mental. As I now hold, the self of self-consciousness is primarily and throughout an embodied self; it is mind and body in one, and the nature of the unity which comprehends both is known only in self-consciousness, and is otherwise unintelligible. Hence the activity of the self, though it essentially involves mind, does not belong to mind alone abstractly considered. This correction does not affect the main drift of the paper. On the contrary it ought, if I am right, to remove a difficulty which might otherwise be felt by the reader. For the concept of a purely mental action is

very difficult, even if it is possible at all. The most abstract thinking is experienced as a strenuous bodily effort.

The essay on *Things and Sensations* belongs to an early stage in the development of my thought on the topic of which it treats. I am glad to have this opportunity of indicating the main points on which I now disagree with it. (1) I have throughout considered only the knowledge of "external objects". I now recognise that what the external object is external to is the embodied self as primarily known in self-consciousness. We cannot therefore give an account of our knowledge of external objects except by giving an account of the distinction and relation of the embodied self and the embodied not-self. (2) I now regard as untenable the distinction which I make in this paper between matter as it is in itself and as it appears to our senses. When I wrote it I was under the influence of such thinkers as Leibniz, Lotze, and W. K. Clifford, who, however widely they may differ from each other, agree that matter as it is in itself is not really material but mental. They are not subjective idealists; they hold that what appears to us as a material world really is a system of actual existences enduring, changing, and interacting. But they deny that either the primary or the secondary characters belong to the intrinsic nature of matter as it is in itself. It is we who qualify it by predicates drawn from the immediate content of our own sense experience which do not belong to it. If we ask what it is in itself we can only conceive it after the analogy of what we find in our own mental life. In this respect the monadism of Lotze and the mind-stuff theory of Clifford are at one. A doctrine of this type pervades my article on *Things and Sensations*. But I now reject it. As I now hold, matter and mind are ultimately and essentially distinct, though ultimately and essentially inseparable. (3) In § 4 I maintain that what I call sensible appearance has an existence of its own apart from that of the physical object which is seen or touched or otherwise perceived by the senses; it is not, I argue, merely this object itself appearing to the percipient. I still hold this position except that I no longer regard the sensible appearance as merely

mental and not material. It is, as I should now say, material but not physical. But I still hold that its existence is distinct from that of the physical object which we are cognisant of in sense perception. There is, however, an ambiguity in the term "sensible appearance" which may give rise to misunderstanding if it is not explained. It may be taken to mean what the physical object seems to be when it is perceived whether or not it really is such as it seems to be. For instance, the moon when we look at it seems to be a small silvery disk, and in double vision what is really a single candle flame seems to be two candle flames. Understood in this way the sensible appearance would simply be the physical object itself as it appears, rightly or wrongly, adequately or inadequately, to the percipient; it would have no distinct existence of its own; it would, I presume, be what Mr. Dawes Hicks calls a content. This is *not* what I mean by "sensible appearance" when I say that its existence is distinct from that of the physical object perceived. To avoid ambiguity I now call what the thing perceived seems to the percipient to be, its perceptual appearance. I reserve the term "sensible appearance" for the sensum actually experienced and therefore actually existing in the moment of sense-perception: the sensum is an appearance of the physical object inasmuch as it determines or contributes to determine the perceptual appearance of that object. In double vision a single flame seems to be two flames because there do not merely seem to be but really are two visual sensa. The two sensa constitute a sensible appearance, not a seeming. I do not assert that the presently experienced sensum is the only factor operative in determining perceptual seeming: there are others which become more and more important as experience advances. But present sensation is the most primitive factor and is actually indispensable. It is the ingredient which gives to sense-perception its distinctive character.

These are the main points on which the article on *Things and Sensations* requires positive correction. It is also inadequate where it is not wrong or misleading. My present view is expounded in the last edition of my *Manual of*

Psychology so far as the scale of the book admits. For a fuller treatment I must refer to the first instalment of my Gifford Lectures which is soon to be published.

The article on *Bradley's Theory of Relations* is supplemented and to some extent corrected by what I say on the same topic in the article entitled *Bradley on Truth and Falsity* (pp. 232-3). I agree with him that the relational way of thinking is essentially inadequate but not that it is false. Both relations and related terms have their being only within the supra-relational unity of some whole. But I do not agree that the supra-relational unity alone is real and that relations as such are unreal. On the contrary, I hold that if the supra-relational unity is real, the distinguishable terms and relations which it unites must also be real.

In *Mind*, Vol. xxxvi., 1927, Professor Kemp Smith has partly defended and partly criticised the doctrine put forward in the article on *The Nature of Universals* together with the substantially similar view of the late Professor Cook Wilson. I think that his criticism is mainly based on a misunderstanding. Where he supposes that he disagrees with me he seems only to be developing my view on a side of it which I have perhaps not sufficiently emphasised. According to him I have failed to take into account what is signified by the phrases "such as", "this-such", or "such as this". What I really hold is that there is a certain supra-relational form of unity which we may call unity of kind. But this peculiar form of unity, like every other, is the unity of a multiplicity comprehending terms in distinctly characteristic relations. Among these I agree that "such as" is fundamental and that it perhaps is the only fundamental relation, all others, such as similarity and contrast, being special cases of it.

I feel that I ought to add an explanation specially addressed to those who like myself are in sympathy with the essential drift of the Socratic or Socratic-Platonic doctrine of Forms. There are certain general concepts, including the mathematical and ethical, which cannot be clearly and distinctly understood if we consider only empirical instances. We cannot clearly and distinctly understand what

equality is without reference to instances of ideally perfect equality, which cannot be perceived or imagined; we cannot understand what justice is without reference to an ideal society in which there is no possibility of injustice. Such ideally perfect instances of a general concept are what Socrates calls "patterns" (*παραδείγματα*); the empirical instances in the world of becoming transiently "imitate" or approximate to these fixed ideals in varying degrees. It seems to me that nothing but confusion and perplexity can arise if we identify the ideal instance with the generality of the general concept and consequently identify imitation (*μίμησις*) with participation (*μέθεξις*). The general concept as such is not a part of itself; but both ideal and empirical instances are, as such, parts (*μέρη*) of it. If this were not so there would be no communication (*κοινωνία*) between them. The ideal patterns would stand aloof in isolated majesty severed from the world of our ordinary experience. It is because Socrates was not clear on this point that he laid himself open to the criticism of the theory of Forms which we find in the *Parmenides* and *Sophist*. In my article on *The Nature of Universals* I am concerned only with generality. What I say is intended to apply indifferently both to such general concepts as justice and equality, which essentially involve ideal instances, and those of hair and dirt for which we cannot assume ideal instances without plunging into what Socrates calls a "bottomless abyss of nonsense". I leave it to others more competent than myself to decide, how far, if at all, what I retain and reject in the Socratic doctrine may also have been retained and rejected by Plato. However this may be, it was mainly through the study of Plato that I reached my own position.

So far as my article on *Error* disagrees with my later treatment of the topic, more especially in the article on *Real Being and Being for Thought*, I should not endorse it. The main divergence is in the account of "appearance". I should not now say that there are any features due to the psychological process of apprehending it which are capable of being ascribed to it independently of this process. If this does not hold good for possibilities it holds for nothing else.

But the status of possibilities is inseparably one with that of universals. Holding as I do that universals belong to the objective nature of things, I am bound to say the same of possibilities. If I draw a billiard ball from a bag containing a thousand white balls and only one that is black, it is possible that I may draw the black one. This possibility is constituted not by ignorance or any mental process in me, but by the general constitution of the collection. Even after I have actually drawn a white ball, it is still true that I might have drawn the black one. Probability is of course in the same position as possibility. If I do draw the black ball, this makes no difference to the objective improbability as positively grounded in the general nature of the collection.

The distinction between the Intent and Content of thought (§ 2 of *Error*) is one which I have not named in this way in my later work. The reason is that the term "content" is commonly used with a quite different meaning.

The fullest and most accurate account of what I have been in the habit of calling "Presentations" is given in *Some Fundamental Points in the Theory of Knowledge.* This should at any rate clear up misunderstanding. The term "presentation" is taken from Ward, and I ought to explain how I came to use it in a way different from his. According to Ward's formal definition a "presentation" simply means an object so far as an experiencing individual is aware of it. It thus covers all that is covered by Locke's 'idea'.[1] I should have been glad simply to accept this use of the term if I had not found it in Ward bound up with a view of the nature of "objects" which I cannot accept. He seems to derive them all from sensation through differentiation and integration of a sensori-motor continuum. He thus ignores or seems to ignore the thought-factor which is for me fundamentally distinct from the sensa and equally original. My remedy for this was to reserve the term "presentation" for the sense factor, or more generally that element in the object which is immediately experienced. This usage, however, has caused so much difficulty and mis-

[1] Ward, *Psychological Principles*, p. 46.

understanding that in the latest edition of my *Manual of Psychology* I have fallen back on the use of the term "presentation" originally proposed by Ward, as corresponding to Locke's "idea". This does not at all imply that I have changed my own view. It only means that I have no longer a convenient term for expressing it concisely.

I am indebted to the following for permission to republish articles: to the Editor of *Mind* for I, II, III, XI, and XIV; to Mrs. Ward and the Editor of *Mind* for the Appendix to V; to the Secretary of the Aristotelian Society for VI, IX, X, XII, and XV; to the Secretary of the British Academy for VII and XVII; to the Editor of *The Monist* for V, Mr. Henry Sturt for XIII, and the University of St. Andrews for XVI.

The paper entitled *In what Way is Memory-Knowledge Immediate?* was delivered before the Scots Philosophical Society, and has not hitherto been published. Two articles appear under new titles. *Bradley's Theory of Relations* was originally published as *Alleged Self-Contradictions in the Concept of Relation*, and *Real Being and Being for Thought* is an emendation for *The Object of Thought and Real Being*. The papers are in the main reprinted as they originally appeared, but almost all contain some minor though not unimportant corrections.

I am deeply indebted to my son, Mr. A. K. Stout, for the care he has taken in preparing the book for the press and for many valuable suggestions. I am also very grateful to my friend Mr. Rex Knight for his help and encouragement.

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I

THE HERBARTIAN PSYCHOLOGY

A. HERBART'S SYNTHETIC PSYCHOLOGY

THE purpose of this article is to state, with the least possible comment, the views of Herbart, as they are expounded in his two most important psychological works, the *Lehrbuch zur Psychologie*, and the *Psychologie neu gegründet auf Erfahrung, Metaphysik und Mathematik*. I shall always refer to the former as the *Lehrbuch* and to the latter as the *Psychologie*. The *Lehrbuch* was the first work in which Herbart gave a systematic account of his psychological doctrines. It is brief and easy to read. The first edition appeared in 1813; a new one, revised and enlarged by the author, was published in 1834. The *Psychologie* (from the years 1824–25) is Herbart's capital achievement. It is divided into two parts, of which the first is synthetic and the second analytic. In the synthetic part, Herbart endeavours to construct a psychological theory on the basis of certain abstract principles. In the analytic part, he describes and analyses the concrete phenomena of mind, and applies to their explanation the results of the first part. The synthetic portion of Herbart's work is much less interesting and important than the analytic, yet it must not be neglected; for, apart from it, Herbart's psychological doctrines cannot be understood in their systematic completeness.

§ 1. *Faculty-Psychology due to Involuntary Abstraction.* —The most striking negative feature of the Herbartian Psychology is its uncompromising polemic against innate faculties, activities, and predispositions. In this respect Herbart

is to a great extent in agreement with the English Associationists. He saw, however, more distinctly than they did, the exact nature and origin of the older methods, which he so resolutely discarded. He attempts to show, at the outset, that the faculty-psychology had its root in the very nature of the introspective process, and that it was therefore unavoidable so long as inner perception was regarded as the sole and sufficient basis of mental science. In physical science generalisation is voluntary; the individual phenomena wait to be examined and compared in detail, so that in forming a classification those resemblances and differences may be emphasised which best conduce to scientific purposes; in purely introspective psychology the case is otherwise. The individual phenomena do not wait for deliberate examination and detailed comparison (*Lehrb.*, § 3). "Self-observation mutilates the facts of consciousness in the very act of apprehending them, tears them from their necessary context, and hands them over to a disorderly abstraction, which finds no resting-place till it has arrived at the highest genera." It is impossible for introspection to catch anything beyond transient glimpses of mental phenomena in their broad outlines. The very endeavour to be exact occasions inexactness; for it leads to disregard of what is obscure, and it is precisely the specialising details of the particular case which are obscurest. The result is that in the older psychology we are everywhere confronted with vague generalities which contribute nothing to scientific explanation because they are incapable of being definitely applied to specific instances.

Nor does the evil end here. The human mind has always been prone to mistake abstractions for realities, even when the corresponding concretes stand out in clear and definite detail. This propensity becomes almost irresistible in a case in which concrete details are shadowy and evasive. Hence we find that the faculty-psychologists, unable to make legitimate use of their generalisations in the explanation of particular phenomena, treated them as if they were real forces producing these phenomena. Thus in their hands Psychology became transformed into a kind of mythology, which

was none the less mischievous because scarcely anyone overtly and explicitly professed to believe in it.

§ 2. *Proposed Substitute for purely Introspective Method.* —Are we then to conclude that the results of introspection are useless? If this is so, need we on that account despair of Psychology, or shall we be able to discover some more secure foundation on which to build it? Herbart maintains that, in spite of past failure, it is yet possible to construct a mental science worthy of the name. Introspection, properly used, yields a valuable and even indispensable point of departure (*Psych.*, §§ 11, 13). Certain facts most clearly revealed to inner observation display, when they are logically analysed, a problematic and, in some cases, a self-contradictory character, due to their detachment from the connexions which alone make them intelligible. Now if, without doing violence to the clear evidence of introspection, we can so supplement and modify these problematic facts by means of hypotheses that the implied contradictions and incoherencies disappear, then the explanatory force of our assumptions will be some guarantee of their correctness. If, moreover, these hypotheses can be successfully applied to the explanation of particular phenomena, the evidence in their favour will be greatly strengthened. Finally, if the lines on which they are framed can be determined with certainty and precision on grounds independent of Psychology, the proposed method will be justified at every point. All these conditions Herbart attempts to satisfy.

§ 3. *Problems contained in the Results of Introspection.* —The whole scope and aim of Psychology is to show how given facts, otherwise unintelligible, may be understood by assumption of hidden facts with which they are connected according to definite laws. In this way we are bound, for psychological purposes, to transcend experience in order to explain experience. Wherever inner observation encounters phenomena which need to be hypothetically supplemented before they can be understood, we have a starting-point for psychological investigation. Among the problems furnished by introspection, some excite inquiry merely because of the indeterminateness of the relations involved, others appear to

imply inner contradictions. As an example of the former class we may take Desire. Desire implies always some presented content of consciousness which is desired. Now, so soon as we begin to examine this relation closely, it gives rise to a series of questions. Under what conditions does the presented content become an object of desire? What must be the nature of the presentation involved, and of the presentative activity, in order that such a phenomenon as conation may arise in consciousness? If we can find an adequate answer, by going back from desire as a given conditionate to hitherto unknown conditions adequate to account for it, then in the fact that we feel desire we have a point of departure for psychological inquiry.

The chief instance of a datum of introspection involving an inner contradiction is found in the fact of Self-consciousness, as implying identity of subject and object. It seems to lie in the very nature of the Ego that it should be at the same time and in the same sense one and dual: one, because the Self which knows is identified with the Self which is known; dual, because they are separated by this very antithesis of knower and known. Nor is this the only difficulty; if we inquire what it is that the Ego is aware of when it is aware of itself, we find ourselves confronted by another puzzle. The Self is not to be identified with any particular act of thinking, feeling, willing, etc., seeing that it is contradistinguished from each and all of these as the common centre to which they are referred. And yet apart from these states the Ego is nothing; it possesses no mark by which it can be distinguished except its own Self-awareness, which involves an inner contradiction.

According to Herbart's own statement, the chief starting-point of his psychology lay in the clear formulation of these puzzling deliverances of introspection concerning the nature of the Ego, and its goal was found in their solution. I shall try to explain the way in which he performed this task, keeping other topics in relative subordination.

§ 4. *Metaphysical Basis of Ultimate Psychological Assumptions.*—The lines on which he proceeded he found prescribed for him by his general metaphysical doctrine,

according to which the soul is intrinsically a simple, unchanging being, originally without any plurality of states, activities, or powers. The variety of mental phenomena, as they actually exist, is ultimately referred by him to the reactions of the soul, whereby it resists a diversity of disturbances *ab extra* due to its relations with other simple beings. As a metaphysical speculation, this doctrine in no way concerns us. But its psychological import is of the greatest consequence.

In the first place it implies that psychological phenomena are to be explained as due to the combination and interaction of certain ultimate mental states initiated *ab extra*, to the exclusion of everything of the nature of innate ideas, faculties, or activities. These ultimate states are called by him presentations (*Vorstellungen*). So far Herbart takes up a position similar to that of the English Associationists. Like them he bases his explanations on the doctrine of a psychological mechanism. He differed from them partly in the mode in which he conceived and formulated his ultimate laws of combination and interaction, partly in the more thoroughgoing and systematic nature of his mechanical explanations. The latter point is most strikingly illustrated by his attempt to obtain quantitative exactness in his results through the application of mathematics to psychology. The doctrine of the simplicity of the soul had a marked effect on his psychological views: it saved him from the atomistic standpoint, on account of which the English Associationists have been so severely criticised. Since the soul is one and simple, its resistance to outward disturbance must be one simple act, which can be considered as multiple only in so far as due to a multiplicity of disturbing conditions. Hence, the presentation of plurality and distinction within the content of consciousness is something which requires explanation instead of being regarded as ultimate. Thus the form which the problem of mental development assumed for Herbart was not—How do isolated sensation-atoms combine to form a mind? but rather—How does demarcation and partition grow up within an original distinctionless unity? The soul is not only simple, but unchanging; it possesses

no inner tendency to pass from one condition into another; hence, when it is once in a given state there seems no reason why, apart from interference *ab extra*, this state should cease or change. In view of this doctrine, the lapse of a presentation into unconsciousness, after it has once been presented in consciousness, constitutes a problem. For Herbart the primary question is not—How do presentations come to be reinstated in consciousness after disappearance? but rather—How is it possible for them to disappear? The key both to this problem and to that of the origin of plurality within the content of consciousness is found by Herbart in the mutual conflict of presentations which are opposed in quality. Presentations may be entirely alike—as, for instance, my sensation of green yesterday and my sensation of green to-day; or they may be entirely disparate —*e.g.* the presentation of sweetness and that of redness: in both these cases they, *ceteris paribus*, merge indistinguishably in one total presentation when they are co-presented in consciousness. If, on the other hand, they are not disparate, but contrary, as are, for example, the presentations of red and of green, they resist co-presentation; in other words, they tend to exclude each other from consciousness. In virtue of this mutual interference presentations become transformed into forces, which oppose or support each other. From this point of view the original unity of co-presented and compatible contents of consciousness acquires a new significance. It becomes a mechanical union of presentations constituting a total force, which resists the arrest of any one of its components. In order, however, to bring out the full meaning of this mechanical interaction of presentations, we must explain the distinction between presentation, presentative activity, and presented content.

§ 5. *Presentation, Presentative Activity, and Presented Content.*—Presentations of contrary quality exclude each other from consciousness. So far as this exclusion takes place, an act of the soul which was originally conscious ceases to be so: it is not, however, annihilated; on the contrary, in ceasing to be an actual presentation it *ipso facto* becomes transformed into a latent tendency to be presented;

it remains as a state of the soul, but it is no longer a conscious state. When and so far as a presentation is in consciousness it is said to be an actual presentative activity; when and so far as it is excluded from consciousness—*i.e.* ceases to be a presentation at all—it is said to be a presentative activity under arrest. In other words, it is an activity which tends to become a presentation, but is hindered from doing so by obstacles. Even when the presentative activity is actual, we must still distinguish between it and the presented content. The presentative activity is an intensive quantity which may be partly arrested and partly unarrested. The term "presented content", on the other hand, is used in reference to the quality, and to the quality alone, of a presentation, in contradistinction from its intensity. When a presentative activity is partly arrested and partly unarrested, the quantum left unarrested constitutes the degree of distinctness of the presented content. The greater the quantum arrested, the more obscure the presented content becomes. Thus one and the same content may be presented in various grades of distinctness or obscurity.

The main point to be borne in mind for practical purposes is that presentations may be regarded (1) as having mechanical relations with each other, and (2) in abstraction from such relations. The phrase "presentative activity" has reference to the former point of view, and it is used only when presentations are considered as forces interacting with each other. The phrase "presented content" has reference to the latter point of view, and it is used only when the mechanical interaction of presentations is disregarded, and their internal quality alone considered. Thus presented contents may be *contrary*, but it is the actual presentative activities which *conflict*.

§ 6. *Significance of Herbart's Metaphysics for his Psychology.*—At this point we may finally dismiss from consideration the Herbartian metaphysics. It was necessary to refer to it in order to show the point of view from which Herbart approached psychology. For us the interest of his psychological theories is entirely independent of his metaphysical speculations. He himself is compelled in the sequel to found

far more on experience and far less on speculation than accords with his original plan. He finds it impossible to deal with the complexity of concrete phenomena by any process of synthetic deduction from general principles. By help of mathematical calculation he carries such synthetic deduction up to a certain point in the first part of his *Psychologie*. But in the second, and greatly more valuable part, he abandons this method, and undertakes an analysis of mental phenomena based on experience, using his previous results only as a guiding clue to the explanation of the concrete facts of mind. It is this application of his fundamental principles which invests them with interest and value for us. It is only as a preliminary to the analytic part of Herbart's work that it is worth while to discuss his abstract doctrines concerning the combination and interaction of presentations. It is only for the purpose of throwing light upon these abstract doctrines that it is worth while to notice the metaphysical speculations with which, in Herbart's view, they were connected.

§ 7. *Relations between Presented Contents.*—Before approaching our main task it is necessary to discuss at some length the fundamental laws of the interaction of presentations, dismissing finally all reference to metaphysical considerations. We must, to begin with, carefully distinguish the three cases already referred to, (*a*) that in which presented contents are exactly similar, (*b*) that in which they are contrary, and (*c*) that in which they are entirely disparate.

Contrary presentations are those which have affinity with each other, without being exactly alike. Thus, different presentations belonging to the same sense or to the same group of movements are contrary. Contrariety admits of degrees. Its lowest grade is scarcely distinguishable from perfect likeness; its highest grade involves complete opposition. Thus, white and black are completely contrary: the intermediate shades of grey are only partly contrary to pure white and to pure black and to each other. A series of this kind is called by Herbart a qualitative continuum, and he holds that all contrary presentations can be arranged in such continua. Mr. Ward also uses the expression qualitative

continuum exactly in the Herbartian sense, as denoting a "series of presentations changing gradually in quality, so that any two differ less the more they approximate in the series". Presentations are disparate when they are neither contrary nor exactly alike: this is the case only when they belong to entirely disconnected continua. Thus, a visual sensation and a tactile are disparate; because they admit of no qualitative gradations between them.

Each of these modes of relation between presented contents is connected with a corresponding relation between presentative activities. Contrary presentations arrest each other; if the arrest is only partial, the unarrested remainders fuse with each other. Exactly similar presentations fuse without arrest. Disparate presentations are not said to fuse, but to become complicated with each other. Thus, the terms *arrest*, *complication*, and *fusion* have, in the Herbartian system, definite and distinct applications. I shall now discuss each of these processes in turn, beginning with arrest.

§ 8. *Mutual Arrest of Contrary Presentations.*—The first point to be noted under this head is that arrest in no case involves annihilation. When one presentation is extruded from consciousness by another, it does not on that account cease to exist. It only ceases to exist as an actual presentation, being transformed into a mere tendency to be presented, so that, on removal of obstacles, it *ipso facto* emerges again into consciousness. The second noteworthy point is that arrest is a gradual process, in which the arrested presentation passes continuously through intermediate stages of obscuration before it finally vanishes. This gradual obscuration is called sinking. When, on the other hand, a presentation increases in distinctness, it is said to be rising. The two processes of sinking and rising constitute what Herbart calls the "movement of presentations". In the next place it must be clearly understood that arrest need not proceed so far as to involve total repression of presentative activity. Coexistence in consciousness becomes possible without further conflict, when each of the antagonistic presentations has reached a certain stage of obscuration, which is called its statical point. But a presentation may sink to

this grade of obscuration without entirely disappearing. When arrest has proceeded so far that all the conflicting presentations have attained their statical points, they are said to be in equilibrium. The total diminution in actual presentative activity which is required to produce a state of equilibrium is called the sum of arrest. The distribution of this sum among the presentations involved is determined by their contrariety and their conscious intensity. The more intense offer a stronger resistance to arrest than the less intense. The latter are therefore proportionately more obscured; and since, *ex hypothesi*, they possess initially a less degree of distinctness, a great many of them may be completely suppressed by a comparatively few which possess at the outset a greater amount of conscious intensity. Hence arises what is called the narrowness of consciousness. Of the innumerable presentations which come into being in the course of a varied experience, only a small proportion can be in consciousness at any moment. The rest are totally obscured.

§ 9. *Statical and Dynamical Thresholds.*—When arresting forces are adequate, and no more than adequate entirely to obscure a presentation at a given moment, it is said to be on the threshold of consciousness at that moment. When the arresting forces are more than adequate to produce total obscuration, it is said to be below the threshold. If it is in consciousness at all, it is above the threshold. If it is above, on, or below the threshold, when the conditions of equilibrium require that it should be so, then it is said to be above, on, or below the statical threshold. If it is above, on, or below the threshold, when the conditions of equilibrium require that it should not be so, it is said to be above, on, or below the dynamical threshold. Presentations below the statical threshold are totally without influence on conscious processes, so that in this respect they might as well be nonexistent. Presentations below the dynamical threshold, on the contrary, operate as very important factors in determining the course of events within consciousness.

The possibility of a presentation sinking beneath the dynamical threshold, or indeed of its sinking beneath its

statical point at all, perhaps requires some explanation. The essential condition is, that a number of presentations must already be approaching equilibrium when a fresh one appears in consciousness. The new-comer is, at the outset, far more removed from its statical point than are the pre-existing presentations. It possesses a proportionately greater quantum of actual presentative activity, and it will therefore, to commence with, have a great advantage in its conflict with those which have already passed through a process of gradual obscuration. Thus it may suppress some of these far beneath their statical points, and it may even, for a time, extrude from consciousness presentations which, in a state of equilibrium, would surpass it in distinctness.

§ 10. *Mechanical Union of Presentations.*—Presentations are in mechanical union when they form a total force which resists with its whole strength the arrest of any of its components. The result is, with some limitations, the same as if the presentation threatened with arrest received an addition to its own intensity. To understand the importance of this, we must bear in mind that a presentation suffers less in conflict with others in proportion as its relative intensity is greater. Thus, x in conflict with y and z united will be more obscured than it would be in conflict with the same y and z if they acted separately.

The fundamental condition of union is co-presentation. In so far as a presentative activity ceases to be actual and becomes a latent tendency, it cannot enter into any kind of combination. The remnant of it which is still left above the threshold may do so, but not the portion which is suppressed. Thus, a totally obscured presentation cannot unite with others at all; a partially obscured presentation can only do so in so far as it remains unobscured. There follows from this a marked distinction between the union of presentations which belong to the same qualitative continuum, and that of presentations which belong to separate continua. In the first case, they will conflict in so far as they are diverse, and they will only combine in so far as their mutual antagonism does not preclude their combination. Such union of contrary presentations Herbart calls

fusion with arrest. In the second case, there is no antagonism of the presentations *inter se*, and they will therefore, *ceteris paribus*, unite completely. This union of diverse presentations without mutual arrest is called complication, and the resulting total force is called a complex. For instance, the visible appearance, the smell, the feel, and the taste of an orange are complicated with each other and form a single complex.

Presentations which belong to the same qualitative continuum must conflict if they are not identical in content, and they will only combine in so far as their mutual antagonism allows. Such combination is called fusion. It is, however, necessary to distinguish between fusion before and fusion after arrest. Since all co-presentation, in so far as it does not give rise to conflict, causes union, it follows that union must take place wherever mutual arrest has reached a point at which conflict ceases. This is called fusion after arrest, and it takes place even in the case of complete contrast. But where the contrast is only partial, there is a tendency to fusion before as well as after arrest; for partial conflict involves partial likeness, and likeness *qua* likeness is a reason for fusion. Absolutely similar presentations, when they are co-presented, do not merely unite to form a collective force, acting, under certain limitations, as if it were a single presentation. Apart from interfering conditions they do actually coincide, so as to form one and the same presentation. Now, when the likeness is only partial the correlative contrariety precludes this absolute coalescence. Nevertheless the tendency to coalesce exists, and forms a special cause of mechanical union. In the case of presentations which have an appreciable degree of contrariety, fusion before arrest can only take place gradually, because the contrast occasions a resistance to union, which it takes time to overcome. If the amount of contrariety reaches a certain point, the partial likeness fails to produce any actual fusion. Even then, however, there is still a tendency to fuse, which is of importance for the explanation of æsthetic feeling. Where the degree of contrariety is very small, fusion before and fusion after arrest nearly coincide,

since there is no appreciable conflict. After this brief account of the elementary processes of arrest, complication, fusion before arrest, and fusion after arrest, we must now consider some of their most general applications. We have to discuss —(1) Sensation as conditioned by the law of diminishing susceptibility; (2) the general laws of Reproduction, mediate and immediate; (3) the formation of certain kinds of Series.

§ 11. *Sensations as conditioned by the Law of Diminishing Susceptibility.*—According to Herbart, every sensation, however simple it may appear, is due to the fusion of innumerable homogeneous components, which are given successively in the minute divisions of time during which the external stimulus operates (*Psych.*, § 94). Thus the genesis of a sensation depends (1) on the persistence of mental states, after they have once come into being, and (2) on the fusion of similars. Now if, so long as the external excitation continued, the rate of increase in the quantum of sensation per unit of time remained constant, there would be no limit to the consequent accumulation of intensity. But this is not so. There is a maximum which the sensation never attains, however persistently the external stimulus is applied. Herbart accordingly assumes that the rate of increase in sensation at any moment is proportional to the amount by which the quantum already produced and still persistent in consciousness falls short of the maximum. He regards the rate of increase as due to the susceptibility of the subject to the special kind of stimulus by which it is affected. The principle, according to which the rate of increase is smaller in proportion as the pre-existing quantum of sensation is greater, is named by him the law of diminishing susceptibility. He extends its application so as to include partially dissimilar as well as completely similar presentations. In this generalised form it may be stated as follows: In proportion as one presentation resembles another, the pre-existence of either of them in consciousness diminishes susceptibility to the other.

It must be carefully noted that presentations beneath the statical threshold can have no power to diminish sus-

ceptibility to others which resemble them. So far as a presentation has become a mere latent tendency, it is *ipso facto* isolated. The course of events within consciousness proceeds as if it had no existence. Hence, a renewal of susceptibility to a special kind of sense-affection takes place in so far as pre-existing homogeneous presentations sink beneath the statical threshold.

§ 12. *Immediate Reproduction.*—By the same principle the re-emergence of a presentation in consciousness must involve diminution of susceptibility to the corresponding sensation. Now the mere removal of the conditions producing arrest is sufficient to cause re-emergence. The presentative activity must of necessity become an actual presentation when there is nothing to hinder it. When a presentation rises, in this manner, spontaneously into consciousness, on the mere removal of obstacles, and apart from any help due to complication or fusion, it is said to be immediately reproduced. The most familiar case is that of a new sensation reproducing preformed presentations of like content. It does this by arresting presentations which, being opposed to itself, are therefore opposed to whatever it resembles. If this immediate revival took place completely in an inappreciable time, the conditions of renewed susceptibility would cease to operate. But reproduction can no more take place suddenly than arrest can do so. Hence the re-emergence of previous similar presentations does not annihilate susceptibility to new sensation. It only diminishes this susceptibility gradually, and in a degree proportional to the rapidity with which the immediate reproduction takes place.

Further, the reproduced presentations of necessity fuse with that which reproduces them, because they are partly or wholly similar to it, and are co-presented with it. In this way there is generated by repetition of like impressions a total force possessing a mechanical efficacy far exceeding what the law of diminishing susceptibility would allow any isolated sensation to attain. This result will prove to be of the greatest importance when we come to consider the origin of general concepts.

Familiar objects cease to attract attention because in their

case diminution of susceptibility takes place very rapidly. Through frequent reiteration of similar experience a fused total is formed, which is very readily reproduced owing to its great strength, and which therefore rapidly decreases sensibility to the outward stimulus.

§ 13. *Mediate Reproduction.*—Mediate reproduction is due to complication and fusion. When a presentation enters consciousness it tends to reinstate other presentations which have combined with it on previous occasions. The main principles which regulate this process are the following:

(1) No presentation can reproduce or help to reproduce another if and so far as it is itself beneath the statical threshold.

(2) The reproducing presentation tends to raise the reproduced to the degree of distinctness which the latter possessed at the time when the combination between them took place.

(3) When this degree of distinctness is attained, the reproducing presentation ceases to yield any further help.

(4) The deeper the reproduced presentation is sunk beneath that degree of distinctness which it possessed at the time when combination took place, the greater is the reproductive energy, and the more rapidly, therefore, will the reproduction take place.

(5) The more intense the reproducing presentation was at the time of combination, the greater is its reproductive energy, and the more rapidly, therefore, will the reproduction take place. (This statement is limited by (1).)

The degree of distinctness possessed by a partially arrested presentation is called its residuum, being the amount of presentative activity which still remains above the threshold.

§ 14. *Evolution and Involution of Series.*—The above rules of reproduction have a most important application to cases in which unequal remnants, r, r', r'', etc., of the same presentation P have fused with a number of different presentations Π, Π', Π'', etc. The time-order in which P reinstates Π, Π', Π'' in consciousness in their original combining distinctness, or as nearly so as the conditions admit,

corresponds to the descending order of magnitude of the residua through which it is connected with them. From this it follows that, *ceteris paribus*, presentations are reproduced in the same order in which they are given in sense-perception.

Suppose a series of successive sensations a, β, γ, δ, etc., a will, from the outset, suffer gradual arrest from pre-existing presentations. When a is already partially obscured, β rises into relatively distinct consciousness and fuses with the sinking a. Then comes γ, which fuses with the partially obscured β and with the still more obscured a. Similarly δ, when it is presented with full distinctness, fuses with the preceding a, β, γ, in their graduated phases of obscuration. In like manner, every succeeding member of the series fuses with all of the preceding which remain in any degree above the threshold, and it unites with a smaller or greater remnant of each according as they are respectively nearer to or further from the commencement of the series. The converse relation holds between presentations which precede and those which follow: a is more distinct when it fuses with β than when it fuses with γ; it is more distinct when it fuses with γ than when it fuses with δ, and so on till it sinks beneath the threshold.

Assume now that the whole series has for a time disappeared from consciousness, and that the initial member a is recalled by immediate reproduction or otherwise; a operates to recall β with an energy proportioned to its own actual presentative activity at the time when it fused with β. Similarly the energy with which it recalls γ is proportioned to its own distinctness when it entered into union with γ. The same holds good for all other members of the series which were presented before a disappeared from consciousness. Now a was most distinct when it fused with β, less so when it fused with γ, and it became continually more obscured as it combined with one after another of the remaining members of the series. Hence it recalls β more rapidly than γ, and so on. The reproductive action of β, γ, δ, etc., is similar with respect to the parts of the series posterior to them. The result is that the whole train of presentations is successively

revived in the same time-order in which it was originally given in sense-perception. This successive reproduction is called evolution of series.

If, instead of a, some posterior member of the original sense-series be immediately reproduced, it will recall not only the following, but also the anterior members. Thus, γ will reproduce a, β, as well as δ, ϵ, ζ. But there will be a fundamental difference in the way in which this takes place. γ recalls δ, ϵ, ζ, successively, because it was itself in varying phases of intensity when it was co-presented with them, and it tends to raise them to full sensuous distinctness, because all possessed such distinctness when they were co-presented with it. On the other hand, it recalls a, β not successively but simultaneously, because it entered simultaneously into combination with them, and it tends to raise them not to full sensuous distinctness, but only to that measure of distinctness which they possessed at the time when their union with it took place. Hence there is no evolution of series backwards, but only a simultaneous revival of anterior members in graduated phases of obscurity. This form of reproduction is called involution of series.

To complete the above statement it is necessary to note that in the evolution of a series the emergence of each successive member of it is accompanied by the subsidence of those which precede, just as in the original sense-given sequence. This is due partly to arrest from extraneous presentations and partly to the nature of the series itself. γ, in reproducing δ, ϵ, ζ, occasions conflicts between δ, ϵ, ζ, and a, β. Moreover, the arrest of a and β must extend also to γ, because it involves diminution of the residua of a and β beneath the measure of distinctness possessed by them, when they combined with γ. Of course its reproductive energy will not be diminished by this increasing obscuration, except in so far as it sinks beneath the residual intensities which it possessed at the time of its fusion with other parts of the series.

Series similar to the above may be formed under other conditions. The presentations a, β, γ, need not be originally given in a definite time-sequence in order that they may be

reproduced in such a sequence. The same result may be due to their forming parts of a qualitative continuum, so that they can be arranged in an order of graduated contrast. If γ be more contrary to α than it is to β, and if δ be more contrary to α than to β, and more contrary to β than to γ, then, since intimacy of fusion is, *ceteris paribus*, inversely proportional to degree of contrariety, there will come into being, under favourable conditions, a series which evolves itself in an order corresponding to the qualitative affinity of its components. Series of this kind are of the greatest importance in the processes of classification and definite comparison.

§ 15. *Correspondence of Mechanical Relations with Presented Relations.*—I have spoken hitherto only of the order in which presentations reinstate one another in consciousness; but the real import of the foregoing results, and, indeed, of the whole doctrine of psychological mechanism, can only be understood when regard is had to the way in which relations of the presentative activity are connected with relations constitutive of the presented content. The most important principle of correspondence may be stated thus: In presented series *qua* presented, the comparative nearness or remoteness of any two terms to a third depends, *ceteris paribus*, on the comparative intimacy their mechanical union has with it. For instance, if P is connected by a remnant r with Π, and by a smaller remnant r' with Π', then, *ceteris paribus*, the presented contents of Π and Π' will appear in consciousness as parts of a series in which Π' is more remote from P than Π is, and in which, therefore, Π is intermediate between P and Π'.

The parallelism of mechanical interaction and presented connexion could not have been treated with advantage before discussing the elementary modes of reproduction. It is necessary to draw attention to it here, both as a supplement to the preceding exposition and as a prelude to what follows. Up to this point I have spoken only of the way in which presentations become connected so as to form simple series. In order to complete this part of my exposition, and to lead up to the analytic portion of Herbart's work,

I must say something about the way in which series, such as those above described, are connected with each other. This topic may conveniently be divided under three heads:

(1) The mutual arrest and support of different series so far as this depends purely on the form of serial reproduction;

(2) The mutual curtailment of series;

(3) The manifold interweaving of series.

§ 16. *Mutual Arrest and Support due to Serial Form.*—Series may arrest or support each other because of their contrariety or likeness, *qua* series, as distinguished from the likeness or contrariety of the presentations composing them. If, for instance, a sense-perception tends to reproduce simultaneously two preformed series in which the same presentations are differently arranged, the two orders of reproduction will be in conflict and will arrest each other. On the other hand, series which are similar in form support one another, and even revive each other by immediate reproduction. We are thus enabled to recognise a letter of the alphabet whether it be written in red ink or in black ink or in golden letters. The comparative ease with which we apprehend symmetrical figures is also to be referred to this head.[1]

§ 17. *Mutual Curtailment of Series.*—Series shorten each other when they have the same beginnings and contrary continuations. Every presentation owing to the conditions of its genesis has a place in more than one series. When it first arises in sense-perception, it combines partly with other sense-given elements, partly with presentations which already pre-exist in consciousness, and partly with others which it reproduces immediately or causes to be reproduced immediately. Now, if we suppose one kind of presentation to be often repeated in sense-experience, it will have entered into a multitude of combinations. Hence, whenever it is reinstated in consciousness, it will tend to cause the evolution of a plurality of series discrepant partly in form and partly in the quality of their components. These series will conflict and mutually hinder each other from evolving, and,

[1] *Psych.*, §§ 100, 114. Herbart's statements on this subject are somewhat meagre and vague,

the longer the reproductive tendencies work, the greater will the conflict and reciprocal obscuration become. If we add to this that the obscuration of anterior members of an evolving series, when it goes beyond a certain point, impairs their efficiency in reproducing posterior members, it becomes obvious that curtailment of the antagonistic trains of ideas is bound to ensue. The central presentation in which they have their origin must, to a large extent, share the arrest of the series connected with it. But, if it has been sufficiently often repeated in sense-perception after renewal of susceptibility, it will be strong enough to maintain a comparatively high degree of conscious intensity. At the same time, the content of the central presentation will be in a manner isolated, because there will be no appreciable evolution of the diverging trains of presentations which meet in it as in a point of intersection. It can, therefore, to a certain extent, be considered apart from the special contexts in which it was presented to sense-perception at particular times and places. In this kind of mental formation lies the germ of the general concept.

§ 18. *Interweaving of Series.*—Interweaving means that from each term of a given series trains of reproduction start, which are in their turn at once separated and interconnected by cross-series. On the side of the presented content regular mechanical interweaving is correlated with the consciousness of a spatial order, or of some order more or less analogous to the spatial; for example, the colour-triangle.

Besides this regular interweaving by which a perfect network is formed, there arise in the course of a varied experience all kinds and degrees of ramifying and re-entrant interconnexion. Where the components of a large group of presentations are connected in a more manifold and intimate manner with each other than they are with other parts of the total mental system, they form a relatively independent and separate mass. Varying environments and occupations give rise to the formation of many such masses in the developed human mind. At this point we are fairly on the threshold of Herbart's Analytic Psychology, the most important part of which is occupied in examining the inter-

action of the highly complex groups with each other and with sense-perception.

B. Herbart's Analytic Psychology

We have so far considered that part of Herbart's work in which he passes by constructive synthesis from simple to complex interaction of presentations. We have now to follow him in his attempt to resolve the complex phenomena of concrete mental life into the elementary processes of which they are composed. The previous synthesis was an indispensable preliminary to this work of analysis. The facts of our actual mental life form a labyrinth which it is impossible to thread without some guiding clue, and this clue can only be found in the abstract theory of the combination and interaction of presentations. To explain the phenomena of Cognition we must show how the nature and distinctness of the presented content is determined by mechanical relations of the corresponding presentative activities. To explain the phenomena of Feeling, we must refer to mechanical relations which exist between actual presentative activities without in any way affecting the content presented. Thus, whereas the psychology of Cognition attempts to account for the presented content, the psychology of Feeling assumes it, and only investigates the mode of presentation. Desire is, according to Herbart, a composite process involving both cognition and feeling. Hence, in order of exposition it ought to follow them. We shall treat then, first of Intellect, afterwards of Feeling and Desire. Finally, we shall turn to the complex problems connected with the Ego-consciousness and with the so-called "Inner Sense".

§ 19. *Perception of Time-Series.*—Suppose a presentation P to be fused with three other presentations Π, Π', Π'', by its three residua r, r', r'', then if r' lie between r and r'' in magnitude, Π', which is fused with r', will be reproduced between Π and Π'', which are respectively fused with r and r''. This principle, which has already been stated in § 14, must be carefully borne in mind if we are to understand Herbart's account of space- and time-perception. The

common character of all series is what Herbart calls intermediacy or betweenness. Intermediacy may be merely a mechanical relation between presentative activities, or it may be also a presented relation constitutive of the content of consciousness. For example, if *a* revives *bcd* in such a way that *c* rises into consciousness less rapidly than *b* and more rapidly than *d*, *c* is mechanically intermediate between *b* and *d* because it comes between them in the serial order of reproduction. But this mechanical intermediacy neither is nor implies presented intermediacy. Presented intermediacy involves not merely the existence of a definite order of reproduction (§ 15), but the apprehension of this order as a content of consciousness. In other words, it implies a presentation of sequence as distinguished from a mere sequence of presentations. If the presented sequence be one-sided, passing only from *a* through *b* and *c* to *d*, we have the perception of a time-series. If it starts coincidently from both *a* and *d* and proceeds simultaneously from *a* through *b* and *c* to *d*, and from *d* through *c* and *b* to *a*, we have the perception of a space-series.

The problem before us in the present section may be stated as follows: What special mechanical connexion of actual presentative activities implies as its counterpart on the side of the presented content the appearance in consciousness of a time-sequence? According to Herbart the necessary conditions are fulfilled when a group of presentations already existing in consciousness in a state of involution (§ 14) evolves itself in serial form in one direction only.

Suppose a succession of sense-perceptions, which constantly takes place in the direction *abcd*. The order of successive reproduction will be correspondingly one-sided (§ 14). Along with the successive reproduction there will always be a simultaneous reproduction, each posterior member of the series reviving anterior members coincidently in graduated phases of distinctness, diminishing in proportion to their remoteness from it in the original sense-given order. Assume now that *d* is given in sense-perception: *abc* will then be, in the manner described, simultaneously reinstated and maintained in consciousness in a state of involution.

If at the same time *a* is reproduced in sufficient intensity to occasion the evolution of the series *abcd*, the conditions requisite to the perception of a time-sequence are satisfied. For (1) we have a series evolving itself which is already present to consciousness in a state of involution; (2) we have this evolution taking place only in one direction, passing always from the more obscured to the less obscured of the involved group, until it terminates in a presentation *d* which already exists in full distinctness. Thus there are presented simultaneously two terms of a series and the mode of transition between them, which is characterised by unity of direction, so that one term is distinctively the beginning and the other term is distinctively the end. According to Herbart this is all that is involved in the consciousness of succession in time.

§ 20. *Perception of Space.*—A space-series, as distinguished from a time-series, has two characteristic marks. (1) In it the distinction of beginning and end vanishes or becomes arbitrary. (2) Every term of a spatial series is the meeting-point of an infinite number of other spatial series which are in their turn interwoven with each other by cross-series. We have to consider under what mechanical conditions relations of this kind become presented in consciousness. Suppose a group of presentations *abcd*, which has been given in sense-perception in the two opposite orders *abcd* and *dcba*: if *a* and *d* are revived together, the group will be coincidently evolved from two distinct points in two opposite directions—*i.e.* from *d* to *a* as well as from *a* to *d*. The presentations *bc* are also reproduced in a state of involution both by *a* and by *d*. We thus obtain a series which, being already present to consciousness in a state of involution, evolves itself coincidently in two opposite directions. Under these conditions the distinction between beginning and end vanishes and a series is presented in which the terms are not successive but coexistent. This is the first essential character of a spatial order. The second essential character is the interweaving of each series of the kind described with an indefinite number of other series. This interweaving has already been described in § 18. We must suppose each mem-

ber of a presented space-series to be connected with all members of all other presented space-series in such wise that on each occasion lines of successive reproduction run to meet each other from every point. The formation of such a network depends on the occurrence of sensations in the order determined by movements of the sense-organs. The eyes and fingers shift to and fro in innumerable directions, occasioning every instant new sensations. Innumerable intersecting series are thus produced, each of which is characterised by the peculiar form of reproduction required for the presentation of coexistence.

The above statements apply only to the perception of linear and superficial extension. The third dimension is, according to Herbart, not perceived, but inferred. It is impossible to follow him here in his discussion of this subject. Another point which must be left untouched is his account of the perception of special figures. I must, however, notice his very peculiar and characteristic explanation of the continuity of space- and time-series.

§ 21. *Continuity of Space- and Time-Series.*—The nearness or remoteness of the parts of time- or space-series depends on gradation of intimacy in the fusion of the component presentations. If now a is fused through its residuum r with b, through a smaller residuum r' with c, and through a still smaller residuum r'' with d, under what conditions can we suppose it possible for c and d to appear in such propinquity to each other that nothing can be interposed between them? According to the law of intermediacy this could happen only if there were no possible residuum intermediate in intensive magnitude between r' and r''. But this supposition is excluded by the very nature of a residuum. The residua of a presentation are in no sense parts of which it is made up. They are phases of distinctness dependent on the varying proportions in which it is obscured by other presentations. It may suffer an endless multiplicity of these grades of obscuration. Hence there never can be two residua r' and r'', such that no third can be found smaller than the one and greater than the other. Therefore, from a psychological point of view, no two terms of a spatial or temporal

series can be in propinquity so close that nothing can be interposed between them. In other words, space and time are psychologically continuous.

§ 22. *Individual Thinking approximates to an unattainable Logical Ideal.*—Logic treats not of the process of thinking, but of relations in the object thought of. The logical concept is the presented content considered apart from the psychological conditions and circumstances of its presentation at this or that time to this or that individual mind. Concepts in this sense, as the common property of all men and all times, are in no way psychological facts. All the marks which constitute a logical concept are equally essential. The parts of any psychological presentation are, on the contrary, of very different degrees of importance according to their relative intensity. The marks of a logical concept are all connected with each other by the same logical necessity. The parts of any psychological presentation are fused or complicated with various degrees of intimacy. From a logical point of view all co-ordinate species are of equal importance. The corresponding presentations as parts of a psychological mechanism may have very diverse degrees of dynamical efficacy. Obviously a state of consciousness in which a logical concept in the strict sense is presented, is an ideal which can never be completely realised. The concept, from a psychological point of view, is the process by which the individual mind approximates to this ideal. From the standpoint of the logician, there may be only a single concept of a triangle common to all mathematicians. From the standpoint of the psychologist, Newton had one concept of a triangle and Archimedes had another.

The psychological problem may be stated thus: How and how far are we enabled to abstract from the casual conditions under which a presentation from time to time appears in consciousness, so as to consider its presented content in relative detachment? According to Herbart there are three main steps by which this is accomplished. The first step is the process of isolation by which a presentation becomes more or less detached in consciousness from the various contexts with which it has been fused and compli-

cated both at its first appearance and on the several occasions of its reproduction. A presented content, so isolated, may be called a crude psychological concept. The second step is the analysis of the crude concept by means of a group of judgements formulated in a group of propositions. The third step is the systematising of these judgements so as to produce a scheme of classification.

§ 23. *Isolation.*—Isolation is due to mutual curtailment of series (§ 17). A presentation is the starting-point of a number of conflicting trains of reproduction, which obscure and enfeeble each other, leaving their common centre comparatively distinct as a presented content, and comparatively powerful as a factor in the psychological mechanism. This process gives rise to a more or less crude apprehension —(1) of objects in space as distinct from their space-environment, (2) of classes of similar objects, (3) of classes of similar events.

(1) According to Herbart, the content of consciousness would be given as a unity without inner partition of any kind, were it not for the conflict of presentations (§ 4). From this standpoint we ought not to ask how leaves, twigs, blossoms, branches, and stem come to be combined in our apprehension of a tree, so as to appear a single thing. It is more pertinent to inquire how the tree comes to be apprehended as something distinct from the ground in which it grows. This and similar problems Herbart attempts to solve by reference to the process of mutual curtailment of series. We are enabled to distinguish a thing from its surroundings, inasmuch as its surroundings vary. For example, when we follow with our eyes the movement of an object, the psychological context in which it is presented and with which it combines is different from moment to moment. It thus becomes the common centre of conflicting series, which more or less neutralise each other, and leave it distinct and dominant in comparison. In like manner, events in time become disengaged from their succeeding, preceding, and accompanying circumstances.

(2) Crude class-concepts arise in a quite analogous way. Like elements in a multiplicity of partly similar presenta-

tions fuse with each other to form a total force. The contrary elements mutually suppress each other, and thus form a dim margin of competing alternatives. A similar result follows from repeated presentation of the same individual thing or person in varying conditions. In this case a crude concept of the individual is generated, essentially similar to the crude concept of a class.

(3) Crude general concepts of events come into being in exactly the same manner as crude general concepts of things. They constitute the rude form of "laws of nature", as presented to the consciousness of the man of science.

The next stage in the development of the concept depends on the formation of judgements in which subject and predicate are definitely discriminated.

§ 24. *Judgement.*—Every familiar object within the circle of our experience gives rise from time to time to new sense-perceptions, which revive preformed similar presentations, and fuse with them. In this manner the crude concept continually assimilates fresh material. From a psychological point of view, we may call each instance of such assimilation a judgement. But judgements in this broad sense will not help us to advance from the crude to the developed concept; for they are by definition nothing more than the successive acts by which the crude concept is formed. Assimilation of the kind described may take place before we are aware of it. It need not involve any distinct consciousness of antithesis between the combining groups, or of the process through which they become united. The logical form of judgement, in which subject, predicate, and copula are clearly distinguished, is not, therefore, necessarily implied whenever a new experience blends with the psychological resultant of previous similar experiences. We have now to consider (1) under what special condition the logical form of judgement does appear in consciousness, and (2) how it affects the development of the concept.

Herbart's answer to the first question is that the distinction between subject and predicate is apprehended only when the process of assimilation is obstructed and delayed so that the factors involved in it can be discriminated and separately

named. This is the case when the fusion of similars cannot be completed without previous conflict of appreciable duration between certain components of the assimilating group, which corresponds to the logical subject, and opposed elements in the new material to be assimilated, which corresponds to the logical predicate. The conditions under which this may take place are manifold. Judgements are often occasioned by a striking change in an object during the moment of perception *e.g.* the exclamation "They run", when an enemy is put to flight. Objects which are partly familiar and partly unfamiliar give rise to a very large and important class of judgements. The child who has seen sheep a great many times ceases expressly to notice the fact that they are sheep. But if for the first time he sees one with black wool, fusion between the new experience and the mental preformation is delayed, so that a judgement takes place, in which subject and predicate are discriminated.

The above examples involve a relation between a sense-perception and pre-existing mental elements. But judgements also arise, independently of sense-experience, through the internal working of the psychological mechanism. One concept, crude or developed, may tend to assimilate another, containing components which resist assimilation.

It may happen that the conflict between subject-group and predicate-group results not in their union, but in the exclusion of the latter from consciousness. This process of exclusion, when it occupies an appreciable time, is represented by the negative copula.

It is obvious that what is essential to the act of judgement may be common both to man and other animals. What is distinctive of human intelligence is not the act of judging, but the expression of the judgement in words. The function performed by Language is twofold. In the first place, it gives a permanent embodiment to the judgement, which is in itself a transient process, ceasing to exist so soon as its product comes into being. This use of language makes possible progressive analysis of the crude concept into a series of predicates permanently formulated in a series of propositions relating to the same subject. We may adduce as a

most important instance of this operation the analysis of sensible things into groups of qualities. The child sees sugar, takes hold of it with his hand, and puts it in his mouth. These sensations blend at first in a single unanalysed presentation. It is only through acts of judgement which become possible with an enlarged experience that the tactile sensation, the visual sensation, and the taste-sensation become severally distinguishable. By the expression of these judgements in verbal forms, which become part of the permanent content of the mind, it becomes possible to resolve the thing into its qualities. We can then distinguish the thing from the sum of its qualities only by regarding it as the unknown cause of their union.

The second great function of Language is to stimulate the formation of judgements. Whenever the same object suggests two appellations, one of which is finally suppressed, and the other preferred, an act of judgement takes place, ascribing to the presentation-group connected with the rejected word a predicate incompatible with the given object. At the same time this predicate is denied of the presentation-group which constitutes the meaning of the word selected. By judgements of this nature the signification of words becomes progressively more fixed and determinate. The application of the same term to a plurality of objects gradually comes to depend, not on a vague general resemblance, but on likeness in certain definite respects. As words thus come to be applied in a definite and unvarying way, the concepts, with which they are connected, become *ipso facto* precise and stable, as regards both what they include and what they exclude. In ordinary thinking, this process is very imperfectly carried out, so that almost all general terms familiar in common life are used with a certain laxity, implying variability in the corresponding concepts. But in scientific terminology such vagueness disappears, or ought to disappear, each technical word being used always in the same sense, as fixed by exact definition.

§ 25. *Classification.*—Classification depends on the arrangement of predicates in a serial order determined by their qualitative affinities, so that any two differ less the more

they approximate in the series (§ 14 *ad fin.*). A number of judgements, such as *A* is *a*, *A* is *b*, *A* is *c*, *A* is *d*, give rise under favourable conditions to a series *abcd*, in which the intimacy of fusion between the terms varies inversely as their mutual contrariety. Series of this kind are in form analogous to the spatial, differing only in their genesis. Hence in speaking of them we are compelled to use expressions which have the appearance of being metaphorical, because they are wrongly supposed to refer primarily to space-relations. Thus tones of various pitch are spoken of as forming a linear series, on which intervals can be measured. Similarly violet is said to lie between blue and red, and orange is said to lie between red and yellow. These and the like expressions are by no means mere metaphors. They depend on the essential analogy between space-series and qualitative series. By means of these quasi-spatial series we are enabled to institute comparisons, in which we estimate the amount of likeness between presented contents, instead of vaguely recognising that they do or do not resemble each other. For the attributes compared present themselves as terms of a series separated from each other by intervening terms which measure, so to speak, the qualitative distance between them.

We are now in a position to explain the co-ordination and subordination of concepts, in which classification consists. Concepts are co-ordinate in so far as their constituent predicates can be arranged in qualitative series. A concept defined by predicates standing for these series as wholes, instead of this or that special term composing them, is the genus to which the co-ordinate concepts are related as subordinate species. Thus the generic concept of a bird is constituted by characters, severally susceptible of those graduated modifications which form the specific marks differentiating one class of birds from other co-ordinate classes.

§ 26. *Space and Time as conceived.*—We must distinguish between perception of the spatial and the temporal in this or that particular presentation, and conception of time and space as pure forms of succession and coexistence. The origin of space- and time-concepts is due primarily to fusion

and reproduction of series arising from their likeness in serial form, accompanied by mutual obscuration of their specific contents arising from qualitative contrariety between them.

The main stages of the process in the case of space are according to Herbart as follows. We perceive an object moving against a diversified background, and at every moment it is presented in a new spatial environment. Let us call the perceived object *A* and its successively perceived environments *p*, *q*, *r*, *s*, etc. From a psychological point of view, *p*, *q*, *r*, *s* are series differing in the quality of the sensations composing them, but agreeing in so far as they are all space-series of a similar form, and in so far as they all bear a similar spatial relation to *A*. Since *A* has been co-presented with *p*, *q*, *r*, *s*, etc., it will tend to reinstate them all in consciousness whenever it is itself reproduced. In such collective reproduction *p*, *q*, *r* and *s* will reciprocally obscure each other in so far as they are composed of contrary presentations, and they will support each other in so far as they agree in serial form. Thus *A* will appear in consciousness as the centre of series which are distinctly spatial in form and bear a distinct spatial relation to it, but which are in the highest degree dim and indeterminate as regards their material content. Suppose now that we have similar experiences in the case of a number of other objects, *B*, *C*, *D*, and suppose that the obscure spatial environment which attaches to *B*, *C*, *D* bears to them a relation similar to that which the obscure spatial environment of *A* bears to *A*. *A*, *B*, *C*, *D* will then fuse with each other and reproduce each other in virtue of their purely formal similarity, although they are opposed in other respects (§ 16). Hence arises the crude psychological concept of a spatial configuration. From this it is only a step to the crude concept of space in general. We have experience of an indefinite multiplicity of spatial figures, agreeing and differing in an indefinite multiplicity of ways. But in one respect they all agree, *i.e.* in being constituted by one space-relation. Accordingly there is generated a presentation in which only the space-form in general is relatively distinct, all special configuration being dim and indeterminate, owing to reciprocal arrest.

§ 27. *Presentation-masses.*—It is impossible that psychological series should uniformly be reproduced in an order determined entirely by the union *inter se* of the terms composing them. They are always subject to more or less serious modification arising from the action of other presentations which happen to be in consciousness at the moment, or which they themselves recall by immediate reproduction. Familiar illustrations may be taken from the falsifications of memory, which are constantly occurring in ordinary experience. We fail to note gradual alteration in persons with whom we are in constant intercourse, because from day to day reproduction of the past is moulded by present perception. Now in so far as the flow of presentations, instead of being restricted to a fixed serial form predetermined by preceding experience, is thus subject to variations caused by the casual concurrence of previously unconnected elements, we have what Herbart calls "the uncontrolled play of the psychological mechanism". This is to be found in the most striking form in children and uneducated persons. The conversations of Mrs. Nickleby may serve as an illustration. The uncontrolled play of the psychological mechanism gives place to disciplined thinking, in so far as presentation-masses come into being which are reinstated and maintained in consciousness without lasting or important modification from extraneous conditions, because their mode of reproduction is determined mainly and ultimately by the internal connexion of their components. This relative independence and permanence is due to their mechanical predominance, whereby they repress whatever is antagonistic to them. Such mechanical predominance is founded on (1) the multiplicity and intensity of their component presentations, (2) the intimacy and the manifold interweaving of the combinations by which these components are interconnected. It must be carefully noted that this internal cohesion and consequent stability is largely due, and is sometimes wholly due, to fusion which arises from similarity in serial form. To estimate the importance of this consideration, we must bear in mind that presentation-masses consist not of simple series, but rather of series of

series. In the course of a varied experience many distinct masses are formed connected with special localities and occupations, such as the church, the theatre, the office, the garden, the chess-board, and the like. To each of these may correspond a large and powerful group, of which the constituents cohere *inter se* with such strength and complexity of interconnexion, that the whole victoriously maintains its characteristic form against interfering conditions.

A presentation-mass may be a concept, or it may be a system of concepts, such as the Hegelian logic in the mind of Hegel, or it may be without any assignable logical organisation, as for the most part those masses are which constitute ordinary common sense.

§ 28. *Apperception.*—Apperception is the process by which a presentation-mass assimilates relatively unstable groups, fusing with homogeneous, and repressing antagonistic, elements. The new material assimilated may be either given in sensation, or reproduced by the internal working of the psychological mechanism. In the former case the process is called outer apperception; in the latter it is called inner apperception; in both it is essentially similar as regards its stages and results. Herbart lays great stress on this analogy, which is of the highest importance in the explanation of what is called inner perception, or, less accurately, the inner sense. In outer apperception the sense-affection is produced before it is apperceived. At the outset it possesses more unarrested intensity than is compatible with the conditions of equilibrium. Hence it has an initial advantage in the conflict with pre-existing contrary presentations, so that it causes them to sink towards the mechanical threshold, or even below it. At the same time, by immediate reproduction, it recalls or raises to fuller distinctness presentations which resemble it. These emerge slowly at first, but with gradually increasing rapidity.

This is the first stage of the process; in it the sense-given presentations are relatively active and the mental preformation is relatively passive. In the second stage this relation is reversed. As susceptibility to external stimulation diminishes, the sense-affection receives less and less support from

this source. The initial advantage which it possessed by reason of its comparative remoteness from its statical point ceases to exist as equilibrium is gradually restored. On the other hand, the pre-formed presentation-mass rises more and more into consciousness, and brings into play the superior strength which depends on its internal cohesion and the multiplicity of its components. The more any of these are arrested, and the longer the process lasts, the more strongly is the reproductive energy of the rest called into action. For the help rendered by a to β increases in proportion as β sinks beneath the phase of distinctness in which it was originally co-presented with a (§ 13; cp. also § 32). Now, the growing dominance of the pre-formed mass would merely cause the repression of the sense-given group, were it not for the points of affinity between the two. So far as they are homogeneous they fuse. The appercipient group retains in consciousness what is kindred to itself, and at the same time represses what is antagonistic. The result is that after suffering considerable modification the sense-given group becomes incorporated with the pre-existing system of presentations.

In the case of inner apperception we must assume the concurrence in consciousness of a stable and powerful mass and of a comparatively weak and unstable series. We must further assume that the weaker group has a temporary mechanical advantage, because it is at the outset considerably above its statical point. This is always the case when the weaker group rises first and the stronger is subsequently reproduced. Moreover, there must be points of community between the two, in virtue of which they fuse, so that the weaker is retained in consciousness by the stronger, when it would otherwise sink. Finally, there must be points of antagonism, so that the stronger cannot fuse with and uphold the weaker without modifying it considerably. When all these conditions are fulfilled, internal apperception takes place. When any of them is unfulfilled, it fails to take place. There is no need to describe its successive stages, as they are essentially similar to those of external apperception.

§ 29. *Apperception as a Condition of Perception.*—To be

in consciousness is not the same thing as to be an object of consciousness. He who is engrossed in thought or in observation of some interesting object fails for the time to take notice of aught besides. Yet he may afterwards recognise that he has been affected by many sensations of which he was not at the moment aware. There is always a dim margin of presentations, which, though not distinctly attended to, are none the less components of the total conscious state. No one is clearly aware of all the motives which urge him to an action, where these are highly complex. The poet or artist does not as a rule analyse the mental processes by which his works are produced. It is therefore necessary to inquire under what conditions a presented content acquires that peculiar distinctness which we express by saying that we notice it, observe it, or attend to it, or that it is an object of notice, observation, or attention. The solution of this problem will also enable us to explain the use of the word Perception in ordinary language. For we are accustomed to say that we perceive things and events, physical or mental, when we notice them, and not otherwise. Herbart's answer to the question before us is that, as a rule, in our developed consciousness, a presented content becomes an object of attention only through the apperceptive process. In the case of sense-perception, the strength of the external stimulus and the susceptibility of the subject contribute more or less to the result. But they are very rarely the sole, or even the dominant, conditions, at least in the developed mind, which is organised into stable presentation-masses. Practically, Herbart treats apperception as the sole constant condition of attention. Apperception is, in fact, from the mechanical point of view, what attention is from the point of view of the presented content. We are now in a position to understand how it is that an inner sense is currently supposed to exist analogous to the outer senses. The analogy breaks down completely if we construe it as meaning that psychological processes must make an impression upon some inner-sense organ or faculty, as physical stimuli affect the eye or ear. But there is a real analogy in so far as the apperceptive process is implied in both cases; so that, if we may not speak

of an inner sense, we are at least justified in speaking of an inner perception, provided that we use the word perceiving as synonymous with noticing. In the light of this doctrine it is easy to understand why different persons, or the same person at different times, have different perceptions under similar circumstances. For all depends on the nature of the dominant apperceptive masses, and these vary indefinitely according as individual experience varies. A skilled musician may easily fail to notice a grammatical blunder; but he will distinguish out of a large choir of voices the one which is at fault. The physician perceives in a moment symptoms which have escaped the long and anxious scrutiny of friends and relatives. The man who is in the habit of examining and criticising his own motives will often detect in himself impulses which might have existed in greater strength, in less introspective minds, without their presence being suspected. It would serve no purpose to go on multiplying instances. The general principle which needs to be emphasised is that, in order to account for a perception (in the broad sense of the word), we must indicate the apperceptive mass through which it is possible, and show how this apperceptive mass is formed.

§ 30. *Categories of Outer Perception.*—Thus, if we ask how the relations expressed by the words Cause, Effect, Substance, Attribute, When, Where, Whence, etc., come to be objects of consciousness, we can only answer by referring to certain concepts, which primarily come into being through fusion by reason of likeness in form. So far as such concepts, functioning as apperceptive masses, mediate the perception of particular terms in particular series, they occasion judgements, which have for their predicates what Aristotle called Categories. It is only when particular space-series are apperceived by the space-concept in general that we recognise spatial position as such. It is impossible here to follow Herbart in his detailed treatment of the special categories or ultimate formal aspects of physical things. The categories of inner perception, or ultimate formal aspects of psychological phenomena, as such, will receive special consideration later on by way of introduction to the dis-

cussion of the Ego-consciousness. We must now discuss Feeling and Desire.

§ 31. *Feeling.*—The mere rising and sinking of presentations, together with the order in which this rising and sinking takes place, involves no modification of consciousness except such as directly affects the nature and distinctness of the presented content. But there are certain modes of mechanical interaction, which must have some counterpart in consciousness, because actual presentative activities are implicated in them, and which nevertheless need involve no variation in the content presented.

An arrested presentation, on removal of the arresting conditions, will of itself rise into consciousness independently of extraneous help. In such a case, what takes place is merely the emergence from total obscuration and the gradual increase in distinctness of a presented content, and there is no reason for supposing that any further modification of consciousness is involved in the process. Now if the presentation referred to not only emerges of itself in the manner described, but is at the same time acted on by the reproductive energy of allied presentations, what modification of consciousness will this added circumstance imply? Mechanically, there is an increase of the total force through which the presentation rises. But there is not a corresponding increase in the rapidity with which it rises; for this is proportioned—not to the sum of the reproducing forces, but—to the greatest single force among them. Now, according to Herbart, the excess of the sum of the forces in operation over what is required for the result actually produced exists for consciousness as an agreeable feeling. Under this head we may instance the pleasures of gratified expectation, including in part those of successful activity, which are to a large extent due to immediate reproduction by sense-perception of presentations already emerging through the internal working of the psychological mechanism.

This coincidence of free emergence with mediate reproduction is only one case in which the total reproductive force is more than adequate to the effect produced by it. It is therefore only one source of pleasurable consciousness.

Pleasure may be defined as consciousness of the support which presentations yield to each other, and this consciousness arises if, and so far as, the support yielded is superfluous in the way described. Thus, whenever a presentation rises with a certain rapidity or is maintained in consciousness in a certain degree of distinctness, by the simultaneous operation of auxiliary presentations which collectively constitute a greater force than is required for the purpose, agreeable feeling must result. Here belongs the pleasure felt in contemplating a conclusion led up to by many independent but converging lines of argument.

The condition of pleasurable feeling is also fulfilled whenever a number of series which have severally to contend against the same obstacles evolve themselves concurrently in consciousness. The more fully each emerges, the more completely is the common resistance overcome, so that it becomes easier for the others to rise. In other words, there is a progressively increasing preponderance of the forces through which the series evolve over the forces which tend to suppress them. Hence results a feeling of satisfaction, joy, or exultation. The pleasure of dancing to music is an obvious example under this head.

Further, if two previously disconnected presentations coincidently emerge in clear consciousness and immediately fuse with each other, they form a new total force, and the statical conditions are therefore altered in their favour. Thus the series to which they belong acquire, *ceteris paribus*, new energy and freedom. Something of this kind occurs whenever an unanticipated conclusion is obtained by logical combination of known data.

Agreeable feeling arises when, and so far as, the mechanical union of presentations has a counterpart in consciousness which is not in any way a modification of the presented content. Similarly, painful feeling arises if, and so far as, the mutual arrest of presentations has a counterpart in consciousness which does not affect the nature or distinctness of the content presented. This occurs whenever one and the same presentation is simultaneously acted on by others, some of which tend to suppress and others to support it.

In such a case conflict continues to exist without exclusion from consciousness of the conflicting presentations. It must therefore occasion a tension existing in and for consciousness. This modification of consciousness is a painful feeling. Accordingly disagreeable consciousness is present when a presentation rises by mediate reproduction which would not have risen apart from it, or when from the same cause it sinks more slowly than it would otherwise have done, or when it is maintained against repressing forces in greater distinctness than its own unaided strength would yield. We may take as an illustration the feeling of tediousness which is produced by a speaker in his hearers when they fail to keep pace with him, either because their thoughts flow too fast or too slow. In either case his words are perpetually setting in motion trains of presentations which they as constantly suppress. A special source of painful feeling is the existence of presentations beneath the mechanical threshold. These influence the course of events within consciousness without being themselves presented. Their operation is felt as a painful pressure, especially noticeable in those restless moods which it is difficult to refer to any definite cause. Pleasing and painful feelings originate also in the process called "fusion before arrest" (§ 10). Fusion before arrest is a source of pleasure if, and so far as, either the tendency to fuse predominates over the resistance to fusion, or, inversely, the resistance predominates over the tendency to fuse. It is a source of pain in proportion as the two tendencies approach equipoise. Herbart applies this theory in detail to the explanation of musical concords and discords. He holds that most elementary æsthetic feelings are to be accounted for in a similar way.

Purely sensuous pleasures and pains are explained on the same lines. Only in their case the presentations between which fusion takes place are not separately discernible. They are merged in a single distinctionless *quale*, which defies all attempts to resolve it into its component parts.

Before concluding this section it is necessary to lay stress upon a point, apart from which Herbart's doctrine of

Feeling would be a chaos of confusion. We have considered the conditions of pleasure separately from the conditions of pain. But in almost every concrete state of consciousness both are present coincidently. For instance, when a presentation rises against obstacles by help of other presentations with which it is fused or complicated, although if dependent only on its own strength it could not have risen, then according to the above statement disagreeable feeling must attend the process. But if the forces, by help of which the presentation rises with a certain rapidity, are more than adequate to cause it to rise with this rapidity, an agreeable as well as a disagreeable feeling must be present. This and similar cases are fully accounted for, when we turn to actual experience. It is the view of common sense that unmixed happiness is hardly attainable even for a moment. Unmitigated misery is also supposed to be rare, though perhaps not equally so. In almost every state of consciousness elements of satisfaction and dissatisfaction interpenetrate. We are happy or unhappy only *a potiori*.

§ 32. *Desire and Volition.*—Desire is, according to Herbart, a composite mode of consciousness, belonging on the one hand to the region of feeling, on the other to that of the presented content. It has no unique character by which it can be marked off from both. A desire exists when a presentation rises by help of another in spite of resistance offered by a third. This process involves, as we have seen, accompanying feeling, painful or pleasant, or both. It also involves variation in the distinctness of the content of the emerging presentation. Besides this, there is a progressive modification of the content of consciousness as a whole; for as the presentation rises it revives and represses others. If the rising presentation reaches a certain stage of distinctness and dominates the total mental state to a sufficient degree, bodily action results; or if external opportunity be wanting, a disposition of the psychological mechanism is produced which gives rise to the action so soon as the external opportunity arrives. All these circumstances are connoted by the word Desire. That disposition of the psychological mechanism which results from desire and gives rise

on occasion to action is called Volition. The volition before it is carried out is an intention.

In the case of sense-desires, such as hunger, thirst, etc., the help through which the desired object rises in consciousness is an organic sensation. Non-sensuous desires depend on the action of the presentation-masses which are dominant at the moment. We feel a very appreciable and often a painful desire when a familiar object is missed. A picture, for instance, is gone from the wall of our room. All the surrounding objects recall it, while the view of the empty space on the wall simultaneously suppresses it. Accordingly we feel the want of the picture. In other words, we desire it. Of course the strength of a desire depends on the strength and complexity of the union of the desired presentation with other components of our conscious state.

One point which requires special notice is the mode in which desires are intensified by being thwarted. If we try to open a door and fail, we feel a desire to open it which, *ceteris paribus*, becomes more eager the longer our attempt is frustrated. This depends mainly on the different rapidities with which different reproductive forces operate. Suppose a series a, b, c, d, such that a is combined with d by a smaller residuum than b, b by a smaller one than c, then apart from hindrances, the rapidity with which d is reproduced will depend wholly on c, which is the strongest force operating to reproduce it. The others are, so to speak, forestalled, since d is already rising with a greater rapidity than they could communicate to it. But if d is checked in its emergence, the case is altered; for instead of rising with greater, it may now rise with less rapidity than it could derive from the reproductive energy of a and b. In so far as this takes place, we may regard the emergence of d as dependent on the sum of the forces a, b, and c. This process, by which d has recourse, as it were, to its reserves may be indefinitely extended. It may take place simultaneously in the series A, B, C, d and α, β, γ, δ, as well as in a, b, c, d. It must also be noted that the longer the desire thus swells like a stream against a barrier, the more fully do connected groups of presentations evolve themselves. If a, b, c, d, A, B, C, d,

α, β, γ, δ, are thrown into a state of tension, then from the several members of these series collateral trains of reproduction may evolve themselves, and combine with each other, if they are not already in combination. Thus the hindrances which thwart desire may in a high degree promote the development of the individual mind. "Necessity is the mother of invention."

§ 33. *Apperceptive Masses as Permanent Seats of Feeling and Desire.*—Feelings and desires are reproduced only by reproduction of the combinations on which they depend. Hence a permanent grouping of presentations involves also permanent predispositions to certain desires and feelings. Thus the great apperceptive masses become the seats of special moods, cheerful or melancholy, and tendencies to special kinds of actions. In this manner is constituted what we call the character of a man. If the apperceptive mass, which is the seat of a settled desire, has the concept-form, the result is generalised desire—*i.e.* recognised maxim or principle of conduct. In so far as the apperceptive masses of an individual mind are connected with each other in the relation of part to whole, so that the more comprehensive can on occasion apperceive the less comprehensive, the resulting character is reasonable and consistent. In so far as they are disconnected, instead of being organised into a system, the resulting character is unreasonable and inconsistent. A man with a mind of this type is called a creature of impulse, a slave of passion, etc.

§ 34. *Categories of Inner Perception.*—The categories of inner perception depend on the formation of concepts, crude or developed, which have as their common character some purely psychological relation, the specific qualities of the related presentations being indefinitely obscured. By purely psychological relations are meant forms of combination among presentations other than those by which sense-perceptions are connected *inter se.* Sense-perception itself, so far as it involves apperception, is constituted by a psychological relation. For it exists only in so far as sense-given presentations enter into combination with pre-formed masses. Hence by indefinite repetition of sense-perceptions a

crude concept comes into existence, having as its common character the peculiar form of interaction which takes place between the mental pre-formation and a new presentation, arising independently of the reproductive working of the psychological mechanism. A sense-perception is recognised as such only when it is apperceived by a concept of this kind. Similarly, there may arise a crude concept in which the form common to all apperceptions is dominant, all else being obscured. By means of this concept the relation between subject and object is recognised, at least in its purely cognitive aspect. If the subject is to be recognised, not merely as knowing, but also as willing, at least a crude concept of volition must exist. The salient character in this case is the general form of process, according to which a desire, having acquired a certain intensity and predominance, is followed by a series of sense-perceptions, beginning with movements of the body and ending in the satisfaction of the desire. The same mass to which the desired presentation belongs apperceives the sense-perception through which it is satisfied. It is at once the starting-point and the termination of the whole series of changes. It is at once active and passive, initiative and receptive. From both points of view it is regarded as a subject: from the one as subject knowing, from the other as subject willing. Now that we have found the relation between subject and object, it is time to investigate the Ego-consciousness.

§ 35. *Psychological Problems relating to the Ego.*—In the most highly developed human experience the Ego is recognised as having three distinctive marks. (1) It is the permanent centre of conscious experience. (2) It is one and indivisible. (3) It is a subject which is aware of itself and of all else. Our problem is to show through what apperceptive mass a presentation, having these three marks, can become an object of consciousness. The most convenient mode of approaching the question is to begin by investigating the recognition of the Ego as something permanent throughout the ever-changing phases of conscious experience. It is obvious that in order to account for this we must discover some presentation-mass which apperceives, or at

least is capable of apperceiving, every presentation. Following Herbart's plan, we shall consider this question first in relation to the earlier stages of mental development, and then pass to the more advanced.

§ 36. *The Body-complex.*—The child in early stages of its experience refers to itself by name as if it were a third person. It says for instance, "Charles will eat, walk," and the like. Now what is this something which the child names before it uses the word "I". What is the omnipresent group of presentations which pervades the varying phases of its conscious life? Herbart answers that the persistent constituent of its experience is at the outset the presentation-complex which arises from the perception of its own body. In this perception is included not only the seeing and touching of the limbs, but also organic and muscular sensations. Hence arises a highly composite complex analogous to those which constitute the presentations of external things. The unique character of the body-complex is contained in the fact that it is always apprehended along with everything else, and that the resultant presentation-mass mediates the apprehension of everything else, being co-appercipient in all apperceptions. The next step in the development of the Ego-consciousness is the distinction between animate and inanimate objects. Under certain circumstances the child himself feels pain or pleasure, and in consequence behaves in a certain manner. When he observes other things under similar circumstances behaving in a similar manner, he ascribes to them also pain and pleasure, and regards them as alive. When, on the contrary, he can trace in their behaviour no analogy to his own, the tendency to regard them as alive is repressed. Thus he comes to frame negative judgements denying life to such objects. In this way a new determination is added to the body-complex. It is recognised as a living, in contradistinction to a lifeless,thing. The next stage is a highly important one: it depends on the distinction between those living things which contain within them representations of things external to them, and those which do not. This point of view is of course extremely crude, but it constitutes an essential step in the

development of the Ego-consciousness. The mode in which it originates will be most clearly exhibited by an example. A child sees a dog run away from the stick which is raised to strike it. He cannot fail to think of pain as already felt by the dog before the blow. Only the pain will be thought of as anticipated, not as real. Moreover, he figures the stick as present to the dog, *i.e.* as in some sense within the dog. Otherwise the dog would not run away. But it is obviously not the real stick which he thinks of in this way; for the real stick is external to the dog. It is therefore an unreal stick, *i.e.* the representation, or image, or idea of the stick. For an image is that which appears like a thing, and which, nevertheless, is not the thing itself. Thus the child regards the dog as having within it a representation of what is without it. This point of view, acquired in the first instance by observation of other living beings, he easily and inevitably transfers to his own case, inasmuch as he comports himself in an essentially similar way. He is now, therefore, able to regard the various objects of his consciousness as having a common character pervading their differences, *i.e.* as being representative images of something other than themselves. This is a most important addition to the central and permanent mass constituted by the body-complex. Let us now consider the various elements which may fairly be regarded as constituting the Ego-consciousness at this stage. We find, then, the presentation of the body (1) as a visible and tangible object, the spatial centre by reference to which the position of other things is determined; (2) as connected with organic sensations, which accompany it as they accompany no other object of consciousness; (3) as containing representations of things external to it, which remain with it when the realities represented are absent; (4) as containing desires dependent for their gratification on its nearness or remoteness from the thing represented by the presentation which is the immediate object of desire; (5) as the starting-point of those series of changes which follow volition; (6) as containing objects of inner perception which are regarded as composed of representative images (ideas).

In this phase of evolution the apperceptive mass which

mediates the Ego-consciousness has as its core, round which all other determinations are grouped, the presentation of the body as a thing in space. We have now to consider the process by which the body-complex recedes gradually into the background, until finally a philosophic concept of the Ego is possible, in which it plays no part at all.

In the first place, the susceptibility of the subject for sensations so familiar as those usually occasioned by his own body becomes very small, unless under exceptional conditions. On the other hand, the total system of representations, which is at the outset regarded as localised in the bodily organism, grows immensely as experience advances, both in extent and inner organisation. The use of language has a great influence in promoting this result. Through language the absent in space and the past in time are recalled with a vividness often sufficient to obscure present sensations. The vivid recall of presentations of the past is of special importance. As one event after another is revived by a succession of appropriate words, they tend to combine with each other more and more completely in a single unbroken time-series, embracing the history of the individual as a whole. If, now, a man is able in this manner to recall a portion of his own history, during which his body has suffered important change in size, form or otherwise, the body-complex to that extent acquires conflicting characters which obscure each other. To that extent, therefore, it ceases to form part of the Ego-complex.

§ 37. *The Ego-consciousness disengaged from the Body-complex.*—Even in this modified form the body-complex must cease to be an integral part of the Ego-complex. As the mental system grows in extent and in organisation, the importance of external perception becomes less and that of inner perception becomes greater. Moreover, inner perception ceases to depend, as originally it did, on any reference to the body even as a repository of representative images. The concepts of psychological relations come into being and act as apperceptive masses, mediating the apprehension of the categories of inner perception—*e.g.* willing, thinking, perceiving, etc. Hence, in the retrospect of his past history

the individual recalls many phases of his conscious life in which the presentation of the bodily organism plays no appreciable part. Now, when the body-complex thus ceases to be a constituent of the permanent mass which mediates the Ego-consciousness, what is there to take its place? What presentation-group can function in the later stages of mental evolution as the body-complex does in the earlier? The masses on which the categories of inner perception depend are more permanent and comprehensive than any others to which we have hitherto referred. But even these do not satisfy the required conditions. They are not capable of being co-appercipient in all apperceptions. We are not always merely willing, or merely perceiving, or merely thinking, or merely feeling. The apperceptive mass which shall enable us to say with clear consciousness of our meaning, "*I* will", "*I* perceive", "*I* think", "*I* feel", must be one in which the distinctive features which differentiate willing, perceiving, thinking, and feeling are obscured, leaving in relative dominance some character common to all of them. Now this ultimate characteristic can be nothing else but psychological relation in general; *i.e.* the inter-connexion of presentations which is implied in their union in one consciousness. The specific qualities of the presentations are indifferent. The specific forms of their combination are indifferent. These may change from moment to moment, while the Ego-consciousness remains the same. So far as the all-embracing group thus constituted comes into play in apperceptive processes, the original unity of consciousness becomes an object of consciousness. When this happens we are aware of that which the word "I" signifies for the developed consciousness. The nature of the apperceived presentations may, and does, vary indefinitely. The Ego perceived may be the Ego willing or the Ego feeling; the objects of volition, knowing, and feeling change incessantly. Some one or other of these determinations must be present if the Ego is to be an object of consciousness at all; but none of them can be regarded as essential. The object of self-consciousness is in fact a complex in which each and all of the constituent parts can be dispensed with, so long

as there are others to take their place; *i.e.* so long as the unity is preserved for which it can be called a complex at all.

§ 38. *The Ego as an Indivisible Real Being.*—By a process analogous to that which leads us to refer the attributes of a sensible thing to a single substance in which they are somehow united, we come also to regard the Ego as a simple real being, distinct from the specific determinations which it assumes from moment to moment in endless vicissitude. The complex which constitutes the presentation of a physical thing is primarily apprehended as a distinctionless unity. When by a series of judgements it has been analysed into a plurality of qualities, the tendency to regard it as a unity still persists. The unity which we are unable to find in the complex itself is posited as a substance on which the complex depends. In like manner the unity of the Ego cannot be identified with all or any of the multiplex and mutable phases in which it is presented. Hence we are driven to posit a simple substance to which they are all referred. This is what is called the soul. But if we push our inquiry further and ask how and when we perceive this simple and permanent substance, we discover that we do not perceive it at all, but only assume it.

§ 39. *The Ego as Self-determined, and especially as Self-known.*—Selfhood is a characteristic which is very far from being confined to the Ego. There is not only a myself, but a thyself, a himself, and an itself. The water forces a way for itself; fire burns itself out; a germ develops itself. Before we can profitably discuss the self-determination of the Ego, we must first investigate the general meaning of the word 'self' as it is used in instances such as these. Now in all cases in which we thus speak of a thing acting on itself, it will be found that a re-entrant series of changes is involved. The thing initiates a train of events which also terminates in it. The water flows in a deeper bed than before. The deepening of the bed is viewed as due to the action of the same water which flows in it. Psychologically, the perception of such a process may be thus represented. Suppose a complex *aAa* to be presented, and let the series *abc* evolve

itself. Suppose, further, that a second series $c\beta a'$ is reproduced by the evolution of *abc*. By reason of the similarity of a' with a, they will fuse, and the whole complex $aa'a$, in which the process originated, will be raised and maintained in consciousness. This psychological movement would proceed in a perpetual cycle were it not for interference from other presentations. Cases of this kind, in which homogeneous elements forming the starting point and the termination of the same or of connected series meet in consciousness, fuse with each other, and emerge with united force, may be repeated indefinitely in the course of a varied experience. By this means a concept of self-determination is generated; the general form of process is alone dominant, all else being comparatively obscured. Particular instances of self-determination become recognised as such, when they are apperceived by this formal concept. Selfhood is therefore a category in the Herbartian sense.

Now the concept of self-determination is perpetually called into play in the apperception of processes both within the Ego-complex proper, and within the body-complex, which does duty for it in the earlier stages of mental development. Every purposive action ends in the satisfaction or the disappointment of the desire in which it originates. The Ego which wills is the same Ego which is satisfied; therefore in willing the Ego finds itself. An animal seeks food, and the same animal enjoys the food. A man moves hand or foot, and the same man sees the movement. We represent our thoughts in words; the words in turn give us back our thoughts; and we say that we have expressed *ourselves*—well or ill, as the case may be.

Recognition of the Ego as self-determined depends (1) on apperception by the Ego-complex, for without this the Ego would not be an object of consciousness at all; (2) on apperception by the general concept of self-determination. Thus self-determination is a category of inner perception, just as willing, feeling, and judging are; and it stands in the same relation as they do to the supreme category which is expressed by the word "I".

To prevent misconception, it may be well to remark that

those elements of the re-entrant series, which fuse and emerge with united strength, are, as parts of the psychological mechanism, only homogeneous, not identical. This is one of the innumerable instances in which what is psychologically composite appears as a single object of consciousness.

In the light of the preceding discussion it is easy to show how the Ego appears to be its own object. In order that it may be an object of consciousness at all, apperception by the Ego-complex is necessary. This apperception may in its turn be apperceived by the same complex, and through the new apperception also the Ego becomes an object of consciousness. The two Ego-presentations fuse, and appear as one. Thus the identity of the "I" as subject and the "I" as object is a case of self-determination explicable in the same way as any other.

This account of the Ego-consciousness was rightly regarded by Herbart as his crowning achievement.

II

VOLUNTARY ACTION

IN a paper by Mr. Shand on "Attention and the Will", read in the first instance before the Aristotelian Society, and afterwards published in *Mind*,[1] it is maintained that what we call a voluntary decision is a unique differentiation of conative thought. Its uniqueness is, according to Mr. Shand, analogous to that of visual as compared with tactual or other sensations. His argument is based on an analysis of involuntary action. Sometimes our bodily organs execute an action in opposition to our express volition. From this it follows that mere efficacy in determining bodily movement is no distinctive character of will. If we proceed to look for other characters, we find none that belong exclusively to will, as compared with the counter-impulses which, in certain cases of involuntary action, frustrate volition. Attention, desire, effort are all involved in the voluntary attitude; but they may all belong as well to the antagonistic tendency which renders the voluntary attitude abortive. The theory that an act of will consists in identifying the tendency to a certain line of action with the self, is true in itself, but it is not an ultimate explanation. If we inquire what identification with self means, it turns out that we can define the self only by reference to a presupposed conception of will. There is no other mark by which to distinguish a conation identified with the self from one which is not so identified, except that the first is a volition, and that the second is not. Mr. Shand infers that a determination of the will must be an attitude of mind, having a distinctive quality incapable of further analysis or description. Mr. Shand's analysis is

[1] N. S. Vol. iv. p. 450.

very acute and methodical; but I am not sure that it is conclusive. In this article I propose to put forward an alternative view which does not appear to me to be open to the objections urged by Mr. Shand. I shall begin with a general examination of the nature of voluntary choice, and I shall then consider those instances of involuntary action on which Mr. Shand lays so much stress.

At the outset, we must exclude as irrelevant all consideration of the actual motor efficacy of various conations. This is a result reached by Mr. Shand through analysis of special instances, but it is in reality obvious from the nature of the case. The question as to the nature of a certain mode of consciousness is quite independent of the question whether or not this mode of consciousness will be followed by a certain train of occurrences in the organism and in the environment. If I will to produce an explosion by applying a lighted match to gunpowder, my volition is none the less a volition because in the course of its execution the match goes out or the powder proves to be damp. Similarly, the volition is none the less a volition if it turns out that my muscular apparatus refuses to act, or acts in a way contrary to my intentions. The connexion between certain modes of consciousness and corresponding movements of the limbs adapted to satisfy our desires is a benevolent dispensation of Providence; but it does not enter into the constitution of the conscious state which precedes the executive series of occurrences. When the conscious state is one of volition, it is indeed necessary that the subject should look forward to the bodily movements either as practically certain, or at least as possible. A belief of this kind is an essential ingredient of the voluntary attitude. But the existence of the belief is in itself sufficient. Its truth or falsehood is a matter of indifference. In a precisely analogous way we must, in determining to produce a gunpowder explosion, assume that the powder is or may be dry enough to take fire. But it is by no means necessary that the gunpowder in point of fact should be dry.

The ground is now cleared for our further advance. We have merely to analyse the facts of consciousness. We have

in no way to consider the conditions under which the executive apparatus of muscles joined to tendons, etc., is brought into play. The first question which confronts us is: What is the difference between that conation which we call a determination of the will and other conations? We may simplify the problem, to begin with, by excluding all modes of conation which do not include the idea of an end. We may also exclude all longings after the unattainable. But a conation which derives its definite character from the idea of an end as attainable is a desire. We have, then, only to deal with desires. The question is, how does a desire differ from a volition? The only answer Mr. Shand can find is that a desire is a desire, and a volition is a volition. The difference between them is, according to him, incapable of analysis in the last resort. I do not agree with this view. I agree indeed that in volition we have an element which is not present in desire. This element appears to me to be assignable and namable. It consists in a certain kind of judgement or belief. A volition is a desire qualified and defined by the judgement that, so far as in us lies, we shall bring about the attainment of the desired end. Mere longing may be defined in the floating idea of an end. Mere desire is defined in this idea together with the problematic judgement that we may or may not attempt to realise it. A volition, on the other hand, is a desire defined in the judgement that we are going to realise an end, if possible. Sometimes the possibility is simply assumed; sometimes it is made an express condition. But where the judgement is explicitly conditional, it always refers to circumstances which are regarded as beyond our control. The limiting condition may be either indeterminate, as when we say that we shall do so and so *Deo volente*. Perhaps some such indeterminate limitation is always present. At any rate it always ought to be present. There is a story of a man who advertised that his coach would start *D.V.* on Wednesday, and whether or not on Thursday. If we took him at his word, this would be a case of absolute volition. But it was probably only a case of mental confusion. Where attainment is judged impossible, volition in the full sense cannot exist. Desire is then defined by a judgement of

the form, "I would if I could". This mental attitude seems to be what is meant by the word *wish* in ordinary language. A man who wishes a thing would will it if he had an opportunity.

I do not of course mean to say that a volition is merely a judgement. My general position is that it is the cognitive side of our nature which gives determinate character to the conative. That conation which finds its cognitive definition in the judgement, "I shall attempt to attain this or that end", is a volition. Introspective analysis exhibits the conative tendency as the reason of the judgement—as that peculiar kind of reason which we call a *motive*.

We have now to inquire whether this account of will explains its characteristic features. The first point to be considered is the difference between the state of suspense or conflict of motives and the state of decision or resolution which terminates it. The difference certainly does not lie in any increased intensity of the victorious desire or group of desires. Nor does it lie in any peculiar vivacity acquired by the idea of the end to be attained or of the action by which it is to be attained. The desire may have been more intensely felt, the idea of the action may have been more vivid, while the conflict was still going on. The essential point is, that, with the emergence of volition, the conflict ceases. There is no longer a struggle of motives. There may indeed still remain a struggle of another kind, a struggle against difficulties and obstacles; but these difficulties and obstacles are regarded as external; there is no longer any struggle so far as regards our own part in the matter. This termination of the struggle does not merely mean that one impulse or group of impulses has turned out to be stronger than their opponents. They might conceivably manifest their superior strength without a cessation of conflict. When two unequal and opposite forces are applied to a particle, the particle will move in the direction of the stronger force; but the action of the weaker force still continues to manifest itself in a diminution of velocity. The triumph of the voluntary impulse is not of this kind. In a perfect volition, opposing impulses are not merely held in check; they are driven out of the field. If they continue to exist, they do so as

external obstacles to a volition already formed. They are no longer motives; they are on the same footing with any other difficulty in the way of attainment.

Now, on my view, the characteristic difference between the state of indecision and that of decision, is that in the first we do not yet know what we are going to do, and that in the second we do know what we are going to do. Does this explain why impulses, which in the state of indecision appear as motives, in the state of decision either disappear or appear only as obstacles? It is a rule of formal logic that two contradictory propositions cannot be both true. Hence, if we judge that we are going to adopt one line of conduct, we *ipso facto* judge that we are not going to adopt an incompatible line of conduct. The incompatible lines of conduct are thus placed outside the sphere of deliberation. When we know what we are going to do, we can no longer weigh *pros* and *cons*. The die is cast. What were previously motives cease to be motives. The effect of the judgement which constitutes volition on opposing impulses is analogous to that of any other judgement which excludes the possibility of action. We cannot will to do what we believe to be impossible. But if we believe that we are going to adopt one line of conduct, incompatible lines become *pro tanto* impossible. Of course, all depends on the strength of the belief; but this is only saying that the efficiency of a volition in maintaining itself depends on the strength of the volition.

It is clear from this why the psychological strength of a volition, viz., its power to maintain itself, is by no means measured by the residual strength of the desire which forms its motive, after the strength of competing desires has been deducted. But we have still to take into account other circumstances which give volition a fixity not explicable by the initial strength of the desire which at the outset formed its motive. The first of these is the influence which an established belief has on the general flow of mental activity. The judgement that we are going to act in such and such a way shapes our thoughts and our other volitions into consistency with itself. Having once decided on reading a paper at the

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Psychological Congress this year, my thoughts tend to dwell on the subject I am to discuss. I read books connected with it. Again, the fact that I am going to read it at a certain date goes far to regulate the disposal of my time in other respects. I do not go abroad at Easter, but take a holiday in England. I refuse an invitation for the summer, and so on. Thus, the judgement that I am going to Munich becomes a centre round which other judgements group themselves in systematic unity. It thus becomes more and more interwoven with the general body of thought and conation. The more advanced this process is, the greater fixity does my volition acquire. To disturb it is to disturb the whole system of tendencies with which it has become interwoven. In this way I may commit myself to such an extent that it becomes impossible to draw back.

Another circumstance which contributes to the fixity of volition is that it involves identification of a certain line of conduct with the idea of self. This phrase as ordinarily used is rather vague, and Mr. Shand has made capital out of its vagueness. But from my point of view it is definite enough. When I judge that in so far as in me lies I shall realise a certain end, the endeavour to realise that end becomes *ipso facto* an integral part of the idea of myself. Failure to realise it is regarded as *my* failure, *my* defeat. Thus volition becomes strengthened in the face of obstacles by all the combative emotions. These are of varying kinds and of varying degrees of strength in different individuals; but whatever tendencies may exist to hold out or struggle against opposition, merely because it *is* opposition, are enlisted in the service of the will, inasmuch as the idea of the line of conduct willed is an integral part of the idea of self.

The phrase *identification with self* may have a deeper significance. It may refer to the nature of the motives of voluntary decision, to the nature of the desire which is regarded as the reason of the judgement that we are going to act in a given way. This motive may be a comprehensive tendency which controls the whole course of our lives, and the counteracting impulses over which it triumphs may be comparatively special and isolated. The tendency which is

the ground of volition may be an essential part of the general outline of our mental organisation; whereas counter tendencies may be occasional and temporary impulses. The devoted patriot who rejects a bribe abides by his principles instead of yielding to temptation. In abiding by his principles, he is also said to "maintain his integrity". If he had yielded to temptation, he would have violated the continuity and consistency of his existence as a whole; he would have felt that he had suffered defeat; remorse would have ensued. In accepting the bribe, he would be aware that his mental attitude at the moment was not representative of his general mental attitude. He would only be able to identify the act with the idea of himself for the time being, not with the idea of himself as a whole. The volition of the moment would not be representative of the volition of other moments. He would have before his eyes a coming time of repentance or regret. Now, I do not mean that this would be so in all cases; it sometimes happens that temptation is so overwhelming, or creeps in so insidiously, that the voice of principle does not make itself heard at the moment. But where it does, as it often does, it is clear that the tendency to preserve the unity and continuity of the self forms a very strong influence both in determining volition and in giving it fixity when once it is formed. The certainty that if our volition is broken and we act in opposition to it we are likely to rue it all our life after may enable us to turn aside unhesitatingly from what might otherwise be irresistible temptations.

The fixity of will is also strengthened, often in a very high degree, by aversion to the state of irresolution. Suspense is in itself disagreeable; and when we have emerged from it by a voluntary decision we shrink from lapsing into it once more. Besides this, prolonged and repeated indecision is highly detrimental in the general conduct of life. The man who knows his own mind is far more efficient than the man who is always wavering. Hence in most persons there is a strong tendency to abide by a resolution just because it is a resolution. This tendency is greatly strengthened by social relations. If we are weak and

vacillating, no one will depend upon us; we shall be viewed with a kind of contempt. Mere vanity may go far to give fixity to the will.

I have now assigned what I take to be sufficient reasons why a voluntary determination often has a permanence and a power of maintaining itself greatly out of proportion to the relative strength of the original conation which forms its motive. No doubt my list of reasons could be extended: but I have probably said enough for present purposes.

We have now to consider the distinction between voluntary and involuntary action. In the strictest sense of the word, an involuntary action is one which takes place in opposition to a voluntary resolution which exists simultaneously with it and is not displaced by it. Thus, if I determine to make a certain stroke at billiards, and if in the moment of action the muscular apparatus fails me, so as to give rise to an unintended, jerky movement, my action is strictly involuntary. But the most interesting case is where the will is defeated, not by an accidental derangement of the motor process, but by an antagonistic desire. We have a typical example of this in the unsuccessful effort to restrain a reflex movement over which we have normally a sufficient control.

Suppose a party of soldiers to be climbing a crag in the dark so as to surprise a castle. Noiselessness is a condition of success. A sneeze or a cough probably means defeat and loss of life. Now it is possible to a large extent to restrain the actions of sneezing or coughing; but if the irritation is sufficiently intense and persistent, repression only makes the ultimate outburst more violent. One of the soldiers may be determined not to sneeze, although the impulse is so strong as to give him great uneasiness. The sneeze would be a relief, and the impulse to sneeze is a desire. None the less, if the impulse prove irresistible, the sneeze is involuntary. Now it may be said that in the moment in which the reflex apparatus is escaping or is about to escape from control the soldier foresees what is going to happen. It may be said that he judges that he is about to sneeze, and that therefore the sneeze ought, on my view of the matter, to be

regarded as voluntary. Here, however, there is a very important distinction to be made. A voluntary act is one which takes place in consequence of the judgement that, so far as in us lies, we shall perform it. The converse is not true. The act is not voluntary when the judgement that the action is going to take place arises because the action is already otherwise determined. In the present instance, the knowledge that the reflex impulse is triumphing, or is about to triumph, is not the condition which causes it to triumph. The sneeze is merely an external circumstance, on the same plane with other external circumstances of an unfavourable kind, such as the inconvenient watchfulness of a sentinel, or any other accident which might defeat the attempt to surprise the fortress. We have assumed that the sneeze is in fact contrary to volition; but we may go further. In such a case it is impossible to suppose that the soldier could will the sneeze. His life and his main interests in life depend on the success of the attempt. There is here an indentification of the end in view with the idea of the self, which is not merely a consequence of volition, but is of such a nature that it must inevitably determine volition. On the one hand, we have an isolated and momentary reflex impulse; on the other, the man's very existence and career is at stake. If we deduct from the man's mental organisation all the interests which prompt him not to sneeze, and all the interests interwoven with these, we have taken away from him his self as a whole, including even the possibility of gratifying future impulses to sneeze. On the other hand, if we suppose the chance irritation of the mucous membrane to be absent, it makes scarcely the slightest difference to the man's personality as a whole. A self can hardly consist in a sneeze.

There is also another case which is peculiarly apt to give the impression of a weaker motive triumphing over a stronger, because of an arbitrary interference on the part of the Ego. It may happen that we are initially merely introspective onlookers at a conflict taking place in our own mind, and that we then intervene to strengthen one of the opposing tendencies. Thus I may feel a craving for exercise, which prompts me to take a walk. This craving is opposed

by still stronger tendencies arising from habit and indolence, which prompt me to sit still and read. These two opposing sets of motives may at the outset have the field to themselves. But I may proceed to reflect on the value of the opposing tendencies. I then recognise one of them as healthy and advantageous, and the other as unhealthy and disadvantageous. I accordingly resolve to do what in me lies to strengthen and develop the motive which from this higher standpoint I prefer. For attaining this end various means are at my disposal in various cases. I may call to my mind reminiscences of past pleasant experiences of muscular exercise; or I may determine straightway to take a walk in the belief that the taste for exercise will grow with use. By these or other means I shall probably succeed sooner or later in so nursing and fostering a weak tendency as to make it capable of triumphing through its own strength. But of course the will to reinforce it is itself determined by motives which are stronger than opposing motives.

Let us now turn to an example given by Mr. Shand. "A man may have a morbid craving for drink or opium; and the ideas which move to its satisfaction may at last become irresistible."[1] Now there are here three cases to be considered. In the first place, the morbid craving may be the motive of a genuine volition, and the action may therefore be voluntary at the time at which it takes place. None the less, it may be maintained that, in a sense, the action is involuntary. When this is so, a comparison is made between the totality of interests defeated by indulging in the drink or opium and the morbid craving itself considered as a relatively isolated impulse. If the craving were taken away, the self would still be left. If, on the other hand, all the interests which are opposed to the indulgence were taken away, there would be little but the morbid craving itself. The craving is indeed more than the craving to sneeze; but it has the same fragmentary and isolated nature, when compared with the total being of the man, especially when the man is a Coleridge. Thus the denial that the act is voluntary may have a good meaning: it may mean that the

[1] *Mind*, N.S. Vol. iv. p. 454.

volition of the moment is discordant with the general volition of a life-time, so that the intervals between periods of indulgence are embittered by remorse. It is felt that the morbid craving, by its isolated intensity, prevents full deliberation. There are, it is assumed, in the man's nature a vast system of conative tendencies, which, if they had found fair-play, and developed themselves in consciousness, would have determined volition, even if they did not determine action. In the second place, the action may take effect before a voluntary decision has been arrived at. In the midst of the conflict of motives, one of the opposing impulses may steal a march on the others, and determine action before the process of deliberation has worked itself out to a definite conclusion. We may act before we know what we are going to do. A man, while still mentally hesitating whether he is to drink a glass of spirits or not, may find that the morbid impulse has so vivified the idea of drinking that he is swallowing the spirits before he has determined whether to do so or not. The act is then involuntary, because it is contrary to the volition to suspend action until he has made up his mind. It is by hypothesis not dependent on the judgement, "I am going to drink". It may also be involuntary in a deeper sense. It may be that from the constitution of the man's whole nature he would certainly have willed otherwise if full deliberation had been possible before action. In the third place, indulgence in the drink or opium may be contrary to the man's express volition at the moment. In this case it is analogous to the involuntary sneeze which we have already discussed.

The question at issue between determinists and their opponents is, strictly speaking, not capable of final decision on psychological grounds. The only clear and definite form in which the problem can be stated is this: Does volition always follow the strongest present motives? The determinist assumes that the motive which determines volition has *ipso facto* proved itself to be the strongest. The critic of determinism regards this assumption as a *petitio principii*. He demands some criterion of strength independent of the actual result in any given case. The challenge is a fair one;

but it is very easy for the determinist in answering it to entrap himself. He may say that strength consists in intensity of impulse or vividness of ideas, or simply in motor efficacy, however this may arise. It is then easy for the partisan of contingent freedom to point out that the will is often opposed to impulses which are the strongest in the sense defined. In considering the whole question, it is important to draw a distinction between the formation of voluntary decision as the issue of a conflict of motives and the persistence of the decision when once it is formed, in face of opposing tendencies. The first question, then, is whether in making up our minds to act or to refrain from acting we always follow the strongest motive. The strength of the motive is to be defined independently of the actual outcome of deliberation. Now, it is clear that the conation which taken by itself is most intense, or which at the moment can pass into execution with most facility, sometimes fails to determine the will. The cases of involuntary action which we have just discussed are conclusive on this point; but the strength of a motive may depend on other conditions. It may depend on the systematic organisation of the mind as a whole in its conative aspect. On the one hand we may have a highly generalised and comprehensive tendency which pervades our whole lives and habitually controls our special volitions. On the other we may have an isolated and momentary impulse, such as the tendency to sneeze. The tendency to sneeze may have more intensity in consciousness, and it may have readier access to the motor apparatus; but it is not therefore the strongest motive in determining volition. Its motor efficiency may be so great that it produces muscular action in opposition to will; but its relative isolation within the organised unity of the self may make it quite incapable of becoming the ground of the voluntary judgement, "I shall act in this or that way so far as in me lies". Another highly important point is that tendencies determining volition or largely contributing to determine it may not be explicitly presented to consciousness as motives. Their presence may not be discriminated, or, if it is discriminated, their power may be undervalued; although,

in fact, they give to the ostensible motive its main force. Thus a man may suppose he is acting from patriotism, when he is in reality actuated in a high degree by party spirit. Subsequent reflection and self-criticism may reveal the motive which was masked at the time of action. But apart from this reflective analysis, it will not appear as a determinant of volition; in that case, it is indeed part of the meaning of the word "I" in the judgement "I choose", or "I decide", but it is not explicitly presented as the reason of the choice or decision. It becomes a motive, not directly, but indirectly, inasmuch as it is the secret source from which the explicit motive derives its strength. Now if we make full allowance for these masked motives, and also for the strength which a motive may derive from its connexion with the total mental organisation, it will, I think, be very difficult for the advocate of contingent freedom to show that, in forming a resolution, we do not always follow the strongest motives. The best instances which he can bring forward are those in which conflicting tendencies appear to be very evenly balanced, so that the supervening voluntary decision looks like an arbitrary interference of the self, putting a closure on the process of deliberation, and bringing matters to an issue by its own independent action. So far as his argument here depends on the contrast between the fixity of a voluntary decision when once formed and the vacillating struggle of motives before it is formed, he has, I think, been already answered in this paper. If, on the other hand, the contention is that opposing tendencies are sometimes so evenly balanced that the final issue cannot depend on their relative strength, there does not seem to be any way of conclusively proving or disproving his position by special argument in special cases. We must, of course, take into account the possible presence of masked motives. We must also lay great stress on aversion to the state of irresolution, as such. It may be that though we are at a loss to decide between two courses of action, we are none the less fully determined not to remain inactive. Inaction may be obviously worse than either of the alternative lines of conduct. We may then choose one of them

much in the same way as we take a cigar out of a box, when it is no matter which we select. Again, many of these cases of apparently arbitrary decision are due to the reflection that one of the groups of opposing impulses owes its strength largely to temporary conditions—to a passing mood, or to the circumstances of the moment—and that if we yield to them we shall regret it afterwards.

We have already by implication dealt with the case of a conflict between a preformed volition and an impulse which interferes with its execution. Sometimes the impulse upsets the volition; but in many instances the fact that the volition is a volition, and not a mere desire, gives it a power and permanence disproportioned to the strength of its original motive. A man may have made up his mind to commit a murder, or to make a confession of his shortcomings before a public audience. It may be that he would never have made up his mind to act in such a way in the actual presence of his innocent victim or of the unsympathetic public; none the less his resolution may maintain itself at the sticking point, and be followed by corresponding action, although it could not have come into being at the actual crisis of its execution. If I have explained why the fixity of will should be out of proportion to the relative strength of the corresponding desire, I have cut the ground from under the feet of those who make a case for contingent freedom by referring to hard cases of volition. In all "hard cases of volition", says James, we feel "as if the line taken when the rarer and more ideal motives prevail, were the line of greater resistance, and as if the line of coarser motivation were the more previous and easy one, even at the very moment when we refuse to follow it".[1] In general, the superior force of the tendencies opposed to volition consist in their isolated intensity, or in their readier access to the motor apparatus. But in any case, the strength referred to is the strength of desire or impulse, as such, and not the peculiar strength which belongs to volition because it is volition.

Professor Sidgwick has said that "against the formidable array of cumulative evidence offered for Determinism there

[1] *Principles of Psychology*, Vol. ii. p. 548.

is but one opposing argument of real force; the immediate affirmation of consciousness in the moment of deliberate action. And certainly, in the case of actions in which I have a distinct consciousness of choosing between alternatives of conduct, one of which I conceive as right or reasonable, I find it impossible not to think that I can now choose to do what I so conceive, however strong may be my inclination to act unreasonably, and however uniformly I may have yielded to such inclinations in the past."[1] Sidgwick does not himself definitely accept this as a valid argument. He refuses to discuss it because he thinks the psychological issue is irrelevant to his purpose. Our interest being purely psychological, we cannot adopt this course. We have to inquire how this consciousness of freedom arises, and what support it lends to the argument in favour of contingent freedom. At the outset we must notice that it is not confined to the case contemplated by Professor Sidgwick. Wherever there is full and prolonged deliberation, the subject is, up to the time when the decision is formed, under the impression that it is possible for him to choose either of two alternative courses of action. The reason is, I think, plain. Before he has decided, he does not know what he is going to do. This is what his indecision means. He must therefore regard all the alternative ends which he has in mind as possible objects of volition. But this obviously constitutes no argument for contingent freedom. We might as well argue that the fall of a penny is not causally determined, because when we throw it we do not know whether head or tail will turn up. There is, however, a further complication when one of the courses of action is judged to be reasonable and opposing courses unreasonable. We here not merely regard it as possible that the reasonable course may or may not be chosen; we also affirm that it is what we ought to choose. And this, I take it, means that it is what we would choose, if the grounds for it were fully brought home to us, instead of being arrested in their development by the impulse of the moment, or by desires which, if not momentary, are at least comparatively isolated

[1] *The Methods of Ethics*, pp. 55-56.

in the total organisation of the self. When we say that we ought to choose a certain course, we mean, I think, that it would be chosen by an ideal self. The contrast between the ideal self and the actual self is in the first place a contrast between the self as a systematic unity and relatively detached tendencies. In the second place, it is a contrast between an undeveloped and a developed self. The development intended is the development of the self as a whole in the direction at once of more perfect unity and of greater differentiation. The developed self would recognise itself as the goal to which the undeveloped self was on the whole tending. Thus, when we say we ought to pursue a certain course, we mean that we should actually decide on pursuing it if we were more completely what we already are. We mean, therefore, that there is in us a possibility of so deciding.

III

PERCEPTION OF CHANGE AND DURATION

THE question with which I deal in this paper is as follows: When we perceive a temporal process as such, how far and in what sense is it necessary that representations of prior parts of the time-series should be present to our consciousness in the perception of succeeding parts? This seems at first sight to be simply a special question of Psychology. But a little reflexion will show that it has an important bearing on metaphysical theories which deserves the utmost attention. We find, for instance, in such writers as T. H. Green, a continual reiteration of the statement that the apprehension of succession cannot be itself successive—that in order to be aware of *B* as succeeding *A* we must have both *A* and *B* before consciousness at once. The necessity does indeed appear self-evident. But it is worth while to consider what is really involved in it, and in what way the actual process of consciousness satisfies this requirement which is imposed upon it *a priori*. I am acquainted with only one metaphysical writer who has answered these questions without ambiguity or haziness. Mr. Shadworth Hodgson, in the wonderfully acute and penetrating analysis contained in the second chapter of his *Metaphysics*, has defined his position on this point with refreshing clearness. He explicitly affirms that, in perceiving a time-sequence, the presentations of prior stages of the sequence must persist in later stages—with a difference only in vividness and in time position. Save only in these respects, there is a sameness in point of kind between the presentations as they originally occur and as they are retained in memory. What

gives the keenest interest to this statement is that it occurs in connexion with the most fundamental point of Mr. Hodgson's theory of the differentiation of Subject and Object. This theory seems to me to be the most noteworthy that has been as yet advanced to show how the distinction of Subject and Object may be supposed to arise out of the distinctionless unity of a more primitive experience. But I shall not in this address discuss it, except in so far as it may be bound up with the special problem of time-perception, which we are immediately concerned with. If Mr. Hodgson's own answer to the question should turn out to be untenable, his general theory of the subject-object relation may be still defensible. But in any case, it will require restatement in a modified form.

The problem before us has been much agitated of late in Germany. It will be convenient for us to begin by some account of the opposing views advocated by two of the most distinguished writers who have contributed to the discussion —Schumann and Meinong. Schumann is well known for his experimental investigation of the perception of small intervals of time, and Meinong is among the most penetrating, careful, and conscientious of analytic psychologists.

Schumann, in an article on the "Psychology of Time-perception",[1] criticises very sharply the view that, in order to apprehend either time-sequence or relations of intensity or quality between successive sensation, we must necessarily retain in consciousness a group of memory images. He discusses first the case of comparison in respect of intensity or quality. Suppose that we are comparing two sounds heard in succession, with a view to determining which is the louder. First one sound is heard, and then, after an interval of two or three seconds, the other; and on this follows the judgement, louder, less loud, or equally loud. This judgement is dependent only on the relative—not on the absolute—intensity of the sounds. It is determined by the conjoint operation of both of them, not by either, apart from the other. But though the judgement presupposes both sounds as its conditions, it does not necessarily contain both as its constituents.

[1] *Zeitschrift für Psychologie*, Bd. xvii. p. 106.

Of course at the moment when the second sound occurs, it must occur in connexion with some after-effect of the first. But this after-effect need not be a memory image. It is sufficient to assume a physiological or psychical disposition. And Schumann maintains that as a matter of fact this is all that experience guarantees. He says: "In comparing two notes, which follow one another at an interval of, say, two seconds, I am in general unable to detect the slightest trace of the first sensation when the second occurs. Other gentlemen have said the same thing in answer to my question. Yet others were not quite confident; but even they could not directly affirm that the prior sensation was actually present. When I observed sensations which followed each other very rapidly, at intervals of $\frac{1}{5}$ of a second, for example, I could not frame any distinct judgement on the matter; but at any rate I could not ascertain any persistence of the first sensation in consciousness." Schumann concludes that for psychical elements to form a whole, they need not be presented together. To "form a single whole" means to act as a whole, to operate as a whole in determining reproduction, judgement, and feeling. The effects of the whole are not equal to the sum of the effects of its elements: the whole complex has its own characteristic effects which depend only on the relations of its constituents. But there is no reason why such effects should not be produced by a complex of experiences which follow each other in time.

Schumann next turns to temporal perception in the strict sense, in which succession and duration are expressly attended to. He takes first the case of a note heard for one second. According to the memory-image theory, in each successive moment during which the note endures there is a sensational experience, and each sensational experience persists in the form of a memory image. Thus the note gradually spreads itself out as times goes on. One layer of memory imagery superposes itself on another, so as to form a kind of duration block, and this is what is present to consciousness when we perceive a note of one second's duration. Schumann denies that he can detect anything of the sort by introspection. "For me," he says, "a tone-

sensation of one second's duration is a unity not really capable of further division, a unity which can give rise to a plurality of judgements—judgements referring to intensity, pitch, timbre, and temporal duration. If we are able to form an immediate judgement as to whether a given tone is of short or long duration, the simplest assumption is that a tone which lasts a short time for that very reason affects us differently from a tone which lasts a longer time." The case is analogous for succession. The successive tones have a combined effect which differs according to the length of the interval between them. This is the deliberate and decided deliverance of a skilled psychologist who has been experimenting for years on the perception of duration and succession. So far as I am personally concerned, I can only say that my experience agrees exactly with Schumann's. When I am aware of a serial succession of presentations as such, I do not apprehend the memory images of bygone parts of the series along with that which is present at any given moment.

The other side of the question is argued by Prof. Meinong in a long and elaborate article in a recent number of the *Zeitschrift für Psychologie*.[1] But his defence is perhaps more damaging to the theory he maintains than Schumann's attack. For he admits most explicitly that introspective evidence yields him no support. He takes such instances as the apprehension of a melody, or of the movement of a body in space. The melody is not presented until the last note of it is heard. But in hearing the last note we utterly fail to detect by introspection the simultaneous presence of the procession of preceding notes in the form of memory images. Similarly, in apprehending the movement of a body from position A to position B, we have not apprehended the movement from A to B until the body has reached B. But at the moment it reaches B we have not before consciousness the memory images of the body in the various successive positions which it has successively occupied on the path traversed by it. It is worth noticing that if this were necessary the entire path would have to be presented

[1] Bd. xxi. p. 182.

as covered by the body continuously. If the question is to be solved by a direct appeal to experience the memory-image theory has not a leg to stand on. It is true of course that a moving body often leaves behind it after-sensations, because impressions on the retina persist for some time after they are produced. If you whirl a burning stick round, you see a circle of brightness. But the circle of brightness appears as a circle. It does not constitute the presentation of the movement of the stick. On the contrary, if you only see the circle you don't see the movement of the stick at all.

If, then, the memory images of previous stages of a successive process cannot be detected by introspection, why not simply say that they are not in consciousness at all? Prof. Meinong replies that they are there because they *must* be there. His argument is in brief as follows: In order to apprehend a relation, or the form of combination characteristic of a complex whole, we must simultaneously apprehend the terms related, or the constituent parts of the whole. This seems obvious *prima facie*. And we may admit the truth of the contention if it only means that we must have *some sort* of apprehension of the terms related in order to apprehend a relation. But the real question is whether all the related terms must appear in the form of sensorial images, either of perception or of memory. And this question must be answered in the negative. There are two kinds of apprehension—the determinate and the indeterminate. The whole process of consciousness, so far as it has continuity of interest, consists in passing, or endeavouring to pass, from indeterminate to determinate apprehension. Whenever we are aware of an object of any kind, what is definitely presented at any moment is only part of the whole which we perceive or think of. When I catch sight of an orange, all that is present to consciousness, in the way of sensation or sensorial imagery, may be only the yellow colour and a characteristic shape and texture. But the colour, shape, and texture have for me a certain significance. They mean an orange. The various detailed experiences which I have had in the past in connexion with oranges profoundly modify my present consciousness, though they do not reappear in

it as distinct experiences—as memory images. Collectively they give rise to a modification of conscious content, which functions for certain purposes instead of the detailed experience. They make possible the indeterminate apprehension of the orange as a certain specific kind of whole, without discrimination of more than a few of its characteristic constituents. If I pick the orange up and eat it, I progressively transform my indeterminate awareness of it into determinate awareness. I recognise that I am apprehending the details of the same object which I had previously apprehended indistinctly. My implicit apprehension becomes explicit. It is easy to apply these statements to the special case in which we apprehend a succession as such. At the end of a melody the last note alone may be in consciousness, and yet we may cognise the melody as a whole. The preceding notes in disappearing have left traces behind them in the way of psychical or physiological dispositions or both. These traces are not isolated; they combine in a cumulative disposition which modifies in a characteristic way the content of consciousness when the last note is heard. But this, as Meinong rightly urges, is not enough. Not *any* modification of consciousness will serve our purpose; and to say that the modification is produced by the preceding notes is not a sufficient explanation. The effect produced by the preceding notes must be capable of functioning instead of them for certain purposes. It must be capable of standing for them. In particular, it must be possible to recognise the equivalence. If, after the last note, we begin to hear it anew or to reproduce it in memory, we must be able to recognise the successive sounds as successive determinations in detail of what we had previously before our minds as an internally indeterminate total. I say *internally* indeterminate, because the whole must be so far determinate as to have for us a specific character by which it is distinguishable from other wholes. I shall say no more on this question of indeterminate or implicit apprehension. Under one guise or another I am always talking about it. Indeed, I find it impossible to stir a step in psychology without it—if I am not to tell deliberate lies.

However, what I wish to bring out here is not the truth of my explanation, but the impossibility of the only alternative which has been explicitly put forward. Is it really possible for these hypothetic memory images, which Meinong and others talk of, to be present in consciousness, although we cannot ascertain their presence by any direct appeal to experience? It may be said that there are such things as subconscious presentations. This, I should be the last to deny. But the best evidence we have for the existence of such subconscious contents is that when we do attend to them we recognise their previous existence anterior to our distinguishing them. We are aware that we do not wholly create them in the act of noticing them. Now, in the present case, the reverse is the fact. However strenuously we may endeavour to detect the presence in consciousness of the prior notes of a melody at its close, or of the prior positions of a moving body when we are watching or mentally representing its motion, we fail to do so. It is not enough to say that Introspection *fails* to discover the presence of these alleged presentations. Beside a mere failure to discover their presence, there is positive success in discovering their absence; what we really find is that they aren't there.

Again, the whole *a priori* argument for the existence of these presentations is based on the assumption that they are essential constituents of the object attended to. The argument is to the effect that in order to apprehend a relation we must have the related terms simultaneously before consciousness as distinct elements of the total object apprehended. But this requirement can only be satisfied if the related terms are attended to, if they are noticed and distinguished. Thus the very same argument which is used to prove that these presentations must exist would prove, if it were valid, that they cannot be subconscious. It would prove that they must be obvious and undeniable data of Introspection. Yet Schumann, Meinong, and others, including myself, cannot detect their presence at all, and I agree with Schumann and Stern in being convinced that I can detect their absence.

IV

THE NATURE OF CONATION AND MENTAL ACTIVITY

§ 1. *Interaction of Subject and Object.*—When a man is angry his heart beats faster and his muscles become more tense. These bodily changes may be regarded, rightly or wrongly, as due to the emotion and therefore as exemplifying the action of body on mind. But such action cannot be properly called mental activity. Mental activity is no more involved in it than in the process by which a stone falling into a pool produces ripples. The quickened beating of the heart and the increased tension of the muscles would not be acknowledged by the man himself or by others as being the man's deeds.

It is otherwise if we suppose him to express his anger by intentionally striking someone whom he regards as an enemy or by writing an indignant letter. Here there is not merely action in the sense in which it may take place in the material world; there is interaction between the Subject as such and his Object as such. There is the knowledge or thought of a certain actual situation and of a possible alteration in it; and the alteration is not only thought of, but also wanted. This is sufficient to constitute what I call mental activity or conation. If the change which is wanted takes place in consequence of its being wanted the activity is so far successful; otherwise it is unsuccessful. When it is successful the resulting change is a change in the Object as such due to the Subject as such. Further, the change reacts on the Subject as such. It transforms his subjective relation to the Object. After the angry man has knocked down the person he is angry with, he may still remain

angry. But his anger is now partly gratified, and to that extent modified. It may even pass away and give place to pity or regret.

Suppose, next, that the angry man attempts to knock his enemy down, but does not succeed. In this case also there is interaction of Subject and Object. The actual situation as known or thought of becomes different from what it was before the unsuccessful attempt. A change has taken place in it, though not the change intended. And the subjective attitude is also modified: anger, for example, becomes baffled anger—impotent rage.

Even when there is nothing that can properly be called an attempt, there may still be found all that is psychologically essential to mental activity. In remorse for the past a certain actual state of affairs is thought of, and there is also the thought that it might have been different from what it actually is. Inasmuch as the past is recognised as irrevocable there can be no attempt to change it. Yet there is still mental activity or conation; for there is a felt tendency which would develop into an attempt if other conditions permitted an attempt to be made.

§ 2. *Mental Activity and Efficiency.*—Plainly no finite process can claim to be called an activity unless it counts as a factor in determining other processes; and yet I have asserted that there may be mental activity which fails in attaining its end and which does not even issue in an attempt to attain its end—at least in any ordinary sense of the word *attempt*. The question may be raised: How can we be justified in applying the term "active" to processes which are confessedly inefficient? I reply in the first place, that they are not absolutely inefficient, but only unsuccessful. A conative process which is unsuccessful is inefficient in producing that particular result which we call its fulfilment. But it is not absolutely inefficient; it counts in some way as a factor determining the course of events. It does so not because it is the special kind of process which we call mental activity, but because it is a process at all. I take it to follow from the general principle of Sufficient Reason or the Unity of the Universe that every state or process plays a part in

determining the nature of other states and processes. If it were in any respect different from what it is, other states and processes would be correspondingly different.

If, however, conation only possessed efficiency in this general sense we could not properly call it mental activity. Whatever can be properly called mental activity must owing to its peculiar nature be capable of playing a peculiar part in determining the course of events. Its specific character in this respect is marked by the distinction between *success* and *failure*. This distinction applies only to conative process; and it presupposes what we cannot describe otherwise than as a *tendency* towards the production of a certain result. The tendency may be present both when the result is actually produced and when it is not. It is equally involved in success and failure; it is presupposed in the possibility of distinguishing between success and failure.

"Tendency" is a vague word. I must therefore try to indicate what I mean by it. The tendency towards a certain result is not constituted merely by the presence of certain conditions of that result and the absence of others. Dry gunpowder in a confined space is one condition of an explosion; if a lighted match is applied to it the explosion will take place. But the gunpowder is not tending to produce the explosion before the match is applied; before the match is applied its non-explosion is not a failure or defeat on its part; and the explosion when it does take place is not a success on its part. A causal condition which is a tendency is in its own intrinsic nature different from a causal condition which is not a tendency. In both cases there is a certain process or changeable state A which when combined with certain other circumstances B, C, D will give rise to a certain result R. Where A is not a tendency or is not recognised as such, we can ascertain only by inductive generalisation that A is one of the conditions which together with others will produce R. For instance, it is only through comparing and sifting a series of particular instances that gunpowder is known to explode when a lighted match is applied to it. On the contrary, where A is a tendency towards R, its being a condition of R is implied in its own intrinsic

nature so as to be directly evident apart from inductive generalisation. Suppose a man with a box of matches standing before an open barrel of gunpowder; suppose the man to know that a lighted match applied to the gunpowder will be followed by an explosion; suppose that all other requisite conditions are known to be present except intention on the part of the man to make the gunpowder explode. So long as the man's intention is uncertain the result is uncertain. But when once it is known that the man intends to produce the explosion, it becomes certain that the explosion will take place. And the certainty is not due to induction; it follows from the intrinsic connexion between purpose and fulfilment—between felt tendency and its realisation.

This intrinsic connexion is illustrated in the most striking way where a tendency failing of immediate fulfilment is developed in a series of attempts. For in this case conation, not finding a path to its end, may gradually make one by repeated trials with adaptive modification of behaviour determined by the results of previous activity. Such persistency with varied effort and gradual approximation to success is a conspicuous feature in the mental life of the more intelligent animals; and it is through such processes that human beings have transformed the face of the earth and built up complex systems of social relations.

§ 3. *Complexity of Conation.*—It will be seen from this preliminary account of conation that I agree with Mr. Bradley[1] in regarding it as a complex unity combining many distinguishable "aspects" or "features". I also agree with him in maintaining that though some of these partial features or aspects may exist apart from conation, yet none of them can exist outside of it precisely as they exist within it. I am thus bound to agree with him in denying that conation is simple and unanalysable if this is taken to mean that it involves no complexity. But the view that conation is simple may bear a different interpretation which Mr. Bradley apparently does not consider at all. It may mean that the conative complex contains a simple and unanalysable element uniquely characteristic of it—an element from which

[1] "Some Remarks on Conation," *Mind*, N.S. Vol. x. pp. 437 *seq.*

the whole derives its distinctively conative character. This is, I believe, the position which Professor Ward maintains, and, on this view of his meaning, he seems to me to be right and Mr. Bradley to be wrong in opposing him.

My divergence from Bradley's view is as follows: He affirms that conation involves the unity of various distinguishable "features" or "aspects" in a complex whole. So far, I agree. But he apparently places all these distinguishable features or aspects on the same level as components of the whole. None of them, according to him, supplies the specific character which is distinctive of conation any more than the others. Here I fail to follow him. It seems to me that there is an ingredient of the conative complex which has a privileged position, inasmuch as it communicates to the complex its distinctive character as a conation. Further, I feel bound to maintain that this component is an unanalysable immediate experience; it is immediately experienced in the same sense as pleasure or pain while they are being felt.[1]

The decision of a question of this kind must of course depend for each of us on a critical examination of his own experience. I must content myself with supplying clues which will enable others to follow my analysis and test its validity. Such a clue is to be found in the inquiry: What becomes of the several components of a conative complex when they are considered in detachment from the whole to which they belong? Every conation includes the apprehension of an actual situation and the thought of a change in it. But these components taken by themselves in abstract isolation constitute a merely cognitive complex as distinguished from a conative complex. I may have an actual situation presented to me, and I may think of a change in it without wanting the change. I may find ink in my ink-bottle, and I may think of the ink being spilt without wanting to spill it and without in any way wishing or desiring that it should be spilt. Further, the change thought of is not even for mere cognition what it is for cognition within the conative com-

[1] The question whether it can be identified with pleasure and pain is discussed below, § 6.

plex. However else it may be determined for thought within the conative complex, it must at the very least be determined as something required to satisfy a want, need, or tendency. And it is not enough that the want, need, or tendency should be merely thought of or cognised. I do not, for instance, feel a desire for food when I merely represent someone else as feeling the craving of hunger and think of food as what is required to appease it. It is necessary that I should be actually feeling the craving myself. It is not even necessary that I should be cognitively aware of the felt craving at all except in so far as such awareness is indirectly implied in the mental reference to food as something desired. Apart from this indirect cognition, the essential condition is that the hunger-craving should be felt and not that it should be cognised. It thus appears that what gives its distinctive character to conation as such is an immediate experience which does not admit of further analysis.

Let us now attempt to consider felt tendency in separation from the cognitive complex constituted by the thought of change in an actual situation. Here we are confronted by the difficulty that it never actually exists in this isolation at the level of conscious experience at which introspective analysis is possible. Indeed it is extremely doubtful whether it is so isolated in any stage of psychical development. Thus all that we can do is to make a hypothetical abstraction of felt tendency from the cognitive conditions with which it is always found united in concrete instances. If, by way of illustrative hypothesis, we suppose that it could be thus isolated, there would no longer be anything which could properly be called conation. But there would still remain that mode of psychical existence which gives to the conative complex its specific character—the character which distinguishes it from a merely cognitive complex. The felt tendency would be entirely blind; but it would still be felt tendency. The being supposed to feel it could not itself directly or indirectly recognise the tendency as such. We could only describe the experience of such a being by saying that it had a feeling of restlessness or uneasiness, more or less intense. None the less another mind might rightly

recognise the restlessness or uneasiness as a tendency requiring to be fulfilled in a certain way. The nurse, for instance, might rightly recognise blind hunger in the child as a craving requiring to be satisfied by appropriate food. It would be rational for her to sympathise with its felt need; but this could not be so if it did not feel a need at all. Thus even if we abstract completely from even the vaguest cognition of an end to be attained, and consequently from the cognition of a tendency as such, its essential relation to something required for its fulfilment still remains. But this is precisely that which as a feature or aspect of the conative complex gives to the conative complex its specific nature.

We may reach the same result in another way. Conation does not merely exist or not exist; it has degrees; there is more or less of it. Now this quantitative graduation seems to be independent of the greater or less distinctness or fullness of the cognition of an end. The end may be determined for thought with extreme vagueness, and yet the conation may be strong and conspicuous. There is more or less of the conation according as it is more or less intense; and this intensity is strictly analogous to the intensity of pain or pleasure as immediately felt. It is the intensity which belongs to immediate experience. We may, then, infer that it is this immediate experience which gives to the conative complex its distinctive character.

§ 4. *Criticism of Mr. Bradley's view.*—Let us now compare this analysis of conation with that given by Mr. Bradley.[1] The vital difference is this: where I speak of felt tendency as an immediate unanalysable experience, Mr. Bradley omits this and substitutes in place of it the identification of an idea with the self. Premising that all conation involves the apprehension of an actual situation and the idea of a change in it, he proceeds to insist that the idea of the change must be identified with the self in a sense in which the idea of the actual situation is not identified with the self.

"Identification with the self" is, as Mr. Bradley admits, a highly ambiguous phrase. In a sense, all ideas which

[1] *Mind*, N.S. Vol. x. pp. 437 *seq.*

enter into an individual consciousness form part of the self. Some meaning more specific than this is required. Mr. Bradley's most explicit statement on this point is to be found in a note on p. 446. He there says: "We find in conation both the theoretical and practical relation of self to an object. . . . While taking these relations as really inseparable, let us by abstraction separate them and consider first the theoretical relation by itself. In this experience there is an object for me, let us say a fruit. This object is in the first place (*a*) felt as mine, as an element, that is, in my whole felt state,[1] and it is also in the second place (*b*) felt as something other than myself. . . . Let us now, however, add and restore to our abstraction the practical relation and let us note the difference. There will be here also an idea, let us say, of eating the fruit. This idea is itself an object beside and against the first object. . . . Now the idea, being an object, is like the first object felt as (*a*) an element in my total state, and (*b*) again, like the first object, it is felt as something not myself. But the idea is also (*c*) as against the first object felt as mine and one with me. . . . The idea is felt as the expression of myself as against the first object, which is now in two senses something alien to me." So far as I am able to understand it, this explanation seems to miss the precise point which requires to be explained. There is a sense in which an "idea" of a change may be felt as one with the self without the change being desired. A man on the scaffold just before the fatal drop may feel himself as about to be hanged and yet he may not wish or desire or will to be hanged. The vital difference between this case and that of the fruit is that the subject not only feels himself as about to eat the fruit, but also wants to eat it—experiences a tendency to eat it. To constitute conation on the part of the self what requires to be identified with the self is not the idea of a change, but the felt tendency towards it. Mr. Bradley habitually speaks of the "actual situation" as a hindrance to the self and of the self as

[1] I do not endorse this language. The fruit cognised by me is not as such a feeling of mine in any sense; nor is it any element, part, or aspect of my total feeling. Apart from metaphysical theories this seems plain.

hindered by it. Are we to take him to mean that it is the *hindrance* which makes the actual situation relatively alien to the self? If this be so, it would seem that he is tacitly presupposing felt tendency as essentially constituting the self in contrast to the actual situation. For hindrance, in any relevant sense, can only mean the hindering of a felt tendency. Where there is no felt tendency there can be no hindrance.

We have yet to inquire whether there is any special sense in which identification with the self is necessary to conation. We have already seen that it is not necessary in the sense that the self must be felt as about to undergo the change. There is, however, another special meaning of identification with the self which requires to be considered, and, so far as I can discover, there is only one. We distinguish a relatively limited self within the totality of our own mental being. The total content of the mind at any moment consists in part of components possessing a systematic unity in which other components do not share. This is the self in the limited sense; we may call it the organised self. Other mental contexts are relatively alien to the organised self. Interpreting "identification with the self" *in this way*, we may now inquire whether identification with the self of the idea of change in an actual situation is necessary and sufficient to constitute conation.

Is it necessary? If it is so, no conation can exist which does not form part of the organised self; none can exist which is felt as foreign to it. There can, on this view, be no conation within me which is not, in the special sense, mine. But there certainly are conations which are foreign to the organised self. Consider, for instance, "obsession" by fixed impulses. A man's organised self may revolt at the thought of committing suicide or murder; and yet he may feel an intense and obstinate craving to kill himself or those who are nearest and dearest to him. The triumph of the craving will be a defeat of the self and its suppression will be a victory of the self. In normal life the most conspicuous examples of this detachment of conation from the self are to be found in the grosser forms of temptation. We may or

may not choose to apply the term *conation* in such cases. However we decide on this point, the fact remains untouched that there exist in relative detachment from the organised self complex wholes containing not only the thought of a change in an actual situation, but also a felt tendency towards this change. Hence, felt tendencies which are by no means blind can exist and be exceedingly strong in relative detachment from the organised self. When we omit from a conative complex identification with the self in this special sense, what is left is not a merely theoretical as distinguished from a practical relation. There may still be felt tendency which is distinctively conative in character and not cognitive. On the other hand, the mere appropriation of the idea of a change by the organised self is not only not necessary; it is not even sufficient to constitute a corresponding conation, having the change for its object. The idea of a man's approaching death may be intimately interwoven with the general system of his ideas; it may so fill his mind that the affairs of his ordinary life appear relatively alien to him; and yet he may not want to die. In order that conation may exist, what is identified with the organised self must be not merely the idea of an actual situation being other than it is, but also the felt tendency to have it other than it is.

I fully admit that a felt tendency may be primarily conditioned by the fact that an idea forms part of the organised self. Whatever disturbs the unity of the organised self is, *ceteris paribus*, an object of aversion and its removal is desired. But this Herbartian explanation is very far from covering all cases of conation; and even in the cases which it does cover we must distinguish conation from the conditions which evoke it. The conation exists only as including the immediate experience which we have named "felt tendency"—an immediate experience which is ultimate and irreducible, having an intensity peculiar to itself quite distinct from the degree of coherence of an idea with a system of ideas.

Finally, I would urge that any explanation which in order to give an ultimate account of conation presupposes

the existence of developed mental systems puts the cart before the horse. The growth of mental systems, and therefore of the organised self, depends on interest—on felt tendencies and the pleasures and pains connected with them. But if the self as an organised system presupposes conation, it cannot be regarded as an ultimate precondition of conation.

§ 5. *Conation and Motor Sensation.*—Conation is intimately connected with the sensations which are due to the use of the muscular apparatus—including muscles, joints, and tendons. The connexion is so close and universal that many psychologists have been led to identify the immediate experience which gives to conative consciousness its specific character with motor sensations[1] of strain, pressure, and tension. This view appears to me to be quite untenable. If it were true, the intensity of conation would be simply identical with the amount of motor sensation connected with it. But this is not so. Conation may be as strong in giving the finishing touch to a house of cards as in lifting a heavy weight; it may be as strong in working out a chess problem or in bringing off a delicate cannon at billiards as it is in a football scrummage. This point may be illustrated by experiments in which the aim is to observe motor sensations. In order to observe sensations of strain we may take a heavy weight in the hand and let the arm hang down by the side. Conation here is present in the form of a desire to know more about tendon sensations. But tendon sensations do not themselves enter into the constitution of the conative consciousness. The desire to know about them does not become more intense as they become more intense. The truth is that motor sensations have no more intimate affinity with felt tendency than visual sensations or sound sensations. Their special connexion with conative consciousness is due to their being the sense experiences which are most immediately and uniformly under our control. In general, we do not explicitly distinguish between those results of our activity which can be habitually counted on as a matter of

[1] "Motor sensations" is an abbreviation for "sensations directly connected with the use of the motor apparatus." I assume, of course, that these are all due to peripheral stimulation.

course and the activity itself. Thus in throwing a stone the experiences connected with the movement of the hand and arm are regarded by us as an integral part of our own action, but the movement of the stone is apprehended as an effect. Similarly in writing, so long as the pen does not splutter or otherwise become unmanageable, not only are the motions of the hand, but also those of the pen included in what I regard as my own action in distinction from its results. I say that *I* write, not that I make my pen write. Now the sensations which are most fully, directly, and uniformly at our command are motor sensations. We can always have these when we are interested in having them, and discontinue them when we are interested in discontinuing them. Other changes in our sense experience are produced by us only indirectly and conditionally. We can determine them only through our bodily movements. In the beginning of mental development motor sensations are very imperfectly under control, as is shown by the behaviour of children. But the child gradually acquires a constant and habitual command over groups and series of motor experiences so as to count on them as a matter of course whenever he is interested in having them. The motor experiences then cease to be distinguished from the subjective activity which initiates them. They blend with conative consciousness in the single unanalysed experience of "motor activity". But the word "activity" is primarily and strictly applicable only to one ingredient of the total experience—conation. The motor sensations as such are passive results. We are active in "making an effort"; but the activity lies in the "making" and not in the "effort". The effort is something *made*.

§ 6. *Conative and Affective Consciousness*.—The prevailing view among experimental psychologists is distinctly adverse to the existence of any peculiar kind of immediate experience distinctively characteristic of conation. What we have called "felt tendency" seems to elude introspection as carried out under the test conditions of the laboratory. The experimental psychologist when he looks for this finds only motor sensations and the qualities of affective consciousness —pleasure and pain. Professor Titchener, for example,

asserts confidently that if there is any other kind of "elementary mental process" besides sensation, it must consist merely in "affection". Affection is the only claimant "which has been found worthy of serious consideration by experimental psychology".[1] Titchener himself "inclines to the view (1) that affection is a conscious element distinct from and ranged alongside of sensation in the composition of consciousness", and (2) that affection has two qualities only, those of pleasantness and unpleasantness.

On this view, affection with its two qualities of pleasantness and unpleasantness is the only elementary process which we are justified in distinguishing from sensation. It would seem to follow that if Titchener and those who agree with him are right, we must be wrong in assigning a distinct place to "felt tendency". Probably, however, the divergence between us is less serious than it appears. What Titchener would deny on behalf of experimental psychology is the existence of felt tendency as an "elementary process" distinct from and ranged alongside of affection, as affection is "an elementary process distinct from and ranged alongside of sensation". But I am in no way bound to assert this. On the contrary, I am inclined to agree that affection and felt tendency are so intimately connected that we cannot appropriately speak of affection as one process and of felt tendency as another. It is very difficult to find satisfactory language to describe the facts, and whatever terms we may select must in part have their meaning determined by their application. It seems, however, better to speak of distinguishable characters or aspects of the same process than of two distinct processes. From one point of view a process may be correctly named affective, inasmuch as it is characterised by the affective qualities of pleasure or pain. From another point of view the same process may correctly be named conative, inasmuch as it is characterised by felt tendency towards the alteration or maintenance of the pleasant or unpleasant situation. If a term is required to express the unity of conative and affective characters in the single process the term *interest* seems most suitable.

[1] *Experimental Psychology*, Vol. i. p. 91.

I admit, then, that affection and felt tendency are not to be distinguished as separate elementary processes. But I cannot concede that they are not distinguishable modes of being conscious. I cannot do so because on this assumption no adequate analysis of the conative complex is possible. Consider, for instance, a state of desire. This involves the apprehension of an actual situation as alterable, and the change must not only be thought of but also wanted or desiderated. The vital question is whether we can account for this "wanting" in terms of affection merely, without introducing felt tendency. The most plausible suggestion is that the change is wanted when pleasure is felt in the anticipation of it. But this account of the matter is irreconcilable with the fact that desire is frequently a painful state. No one will contend that wanting a change consists in feeling *pain* in the anticipation of it. Nor is it enough that pain should be felt in reference to the actual situation. For the actual situation is often not unpleasant in itself but only because the change is desired. Desire, therefore, is presupposed as the essential condition of the pain, and the pretended analysis involves a vicious circle.

In general, the pleasures of success and the pains of failure are derivative from conative consciousness and cannot therefore constitute it. There is a single process which is at once conative and affective. But the affective quality varies according as conation is hindered or furthered while the conative attitude persists. And it cannot be maintained that what we call the conative attitude is something which involves no peculiar immediate experience. For the pains of failure and the pleasures of success are felt as such. Failure is felt as failure and success as success. But this is possible only because conation also includes the immediate experience of felt tendency.

§ 7. *Experimental Psychology and Conation.*—In conclusion we may inquire why the existence of felt tendency has for the most part eluded the systematic introspection of experimental psychologists. One reason is that they have not expressly applied their peculiar methods to this special problem. They have not, for instance, subjected processes

of desire to introspection under test conditions experimentally adjusted and varied according to a systematic plan. There are obviously very great difficulties in the way of such an undertaking, and it may be that these difficulties are insuperable. However this may be, the fact remains that experimental psychologists have not applied their distinctive methods to the analysis of the conative complex as they have applied them to the analysis of complex sounds or odours.

If felt tendency exists at all it can only be detected within the unity of the conative complex. There is no possibility of attending to it separately in the way in which sensations can be separately attended to. It is known only as being that partial feature of the conative complex which communicates to the whole its distinctively conative character. Our previous analysis shows that it is one constituent of the complex among others and not merely the mode in which the constituents are combined. Further, the unity of the whole cannot be externally produced by any combination of items previously existing in detachment from it, as a complex odour can be produced by a combination of simple odours or a complex tone by a combination of simple tones. Given the conative complex in its unity we can by analytic comparison distinguish within it partial features which may also, in a sense, exist outside it. But their peculiar connexion within the complex and the peculiar qualifications which belong to them in virtue of this connexion cannot be superinduced on them by any constructive process, such as might be applied in a laboratory experiment. Finally, the element of felt tendency which, so to speak, leavens the whole, cannot be observed at all in detachment from the conative complex. It will therefore altogether elude a psychologist who starts with an attempt to assign separately the simple constituents of the mental life and then, presuming on the adequacy of his analysis, proceeds to account for conation as a mere combination of the only "simples" which he is prepared to recognise as such. But this method, more or less consistently pursued, is at present the prevalent one among experimental psychologists. It is

described by Titchener as "beginning with the simplest and working up to the most complex" instead of "beginning with the 'real mind' and travelling in this way from the better known to the less known".[1] This mode of procedure may have much to recommend it where we are dealing with "simples" which can be separately attended to; but it is obviously futile where we are dealing with "simples" which elude inquiry altogether when the inquiry fails to keep in view the unity of the whole to which they belong as inseparable features or aspects. The natural result is the result which has actually been reached by most laboratory specialists. The only primary constituents recognised as entering into the constitution of complex mental processes are sensations. Titchener, for example, takes it for granted that "to begin with the simplest" is "to begin with sensation". "Ought one", he asks, "to begin with the simplest and work up to the most complex—to begin with sensation and to end with mind?" From this point of view the nature of cognition as well as conation is falsified and even the "affective qualities" are either resolved into sensation, or, if their distinct existence is admitted at all, it is admitted in a vague and dubious way. The assumption which virtually controls most work in psychological laboratories is that the "real mind" is merely a sensation-complex. As a consequence the point of view of psychology tends to become identified with an extravagant form of subjective idealism. For sensations are modifications of the immediate experience of the individual, existing only in so far as he actually experiences them at any given moment. Further, they are individual experiences which do not refer to anything beyond themselves as their objects. They may themselves be cognised objects, but they are not themselves cognitive. To speak of the object of a visual sensation is as meaningless as to speak of the object of a potato. In the mere sensing of a sensation, abstractly considered, if we are cognitively aware of anything, it is only of the sensation itself as it

[1] *Op. cit.* Vol. ii. pt. i. *seq.* Titchener is referring to methods of teaching; but the procedure which he advocates is characteristic of laboratory work in general.

exists at the moment. Any mental reference to sensations which are not being actually sensed cannot itself be a sensation. Thus, if the "real mind" is nothing but a sensation-complex, it follows that each of us at any moment can be aware only of his own immediate experience at that moment. Such a position is, of course, totally untenable from the point of view of Theory of Knowledge, and it does extreme violence to common sense. But it may be contended that it is legitimate and useful in psychology. Against this view I feel bound to protest. Our mental life, at any moment. essentially involves mental reference to objects which are no part of our immediate experience at that moment. It is even less possible to treat of it without taking into account this objective reference than it is to treat of eating without reference to food or of walking without reference to the surface walked on or of motion without reference to space. The disastrous consequences of the attempt to carry out this impossible abstraction are especially marked in the case of those modes of psychical existence which are not, like sensations, primarily objective, but are distinctive modes in which consciousness refers to objects.[1] Under this head comes Conation. Conation by its intrinsic nature involves a mental reference to something which is no part of the actual experience of the individual at the moment when he actually experiences the conation. It essentially involves the thought of an "is to be", as Mr. Bradley would say, in contrast with what actually is. We cannot desire an experience which we actually have in the moment of desiring it; we must, on the contrary, apprehend it as not forming part of the actual situation. Hence any attempt to analyse conative consciousness which ignores objective reference is doomed to failure. Felt tendency, if it exists at all, exists as that mode of immediate experience which gives its distinctive character to the conative reference to an object. Those psychologists, therefore, who systematically disregard objective reference cannot be expected to discover felt tendency. They do not look for it where alone it can be found, and

[1] Of course I should deny that even sensations could be objective if there were nothing but sensations.

their failure to find it is therefore not a sufficient reason for denying its existence. It is, however, a reason for protesting against the metaphysical prejudice into which they have in part been led by their eagerness to escape metaphysics altogether.[1]

[1] As another example of the subjective idealism of experimental psychologists, I may refer to Titchener's account of Attention. Attention is, according to him, a "state" of consciousness; the word *state* being used as equivalent to the German *Zustand*. It is "the mode or form of existence, which—if we may use the metaphor . . . the conscious processes of a given time are enjoying. . . . We speak of attention as 'a state of consciousness' just as we speak of muddiness as a state of the roads, or of a man's affairs being in a bad state. The roads and the affairs are obviously different from the muddiness and the badness—and that is the difference between the processes attended to or attended from, and attention itself" (*op. cit.* Vol. ii. p. 189). Here it is presupposed as a matter of course that what is attended to is always merely the "conscious process of a given time". Apart from this unjustified and unjustifiable assumption, Professor Titchener's position is quite unintelligible. When I attend to another man's arguments or opinions it is nonsense to say that my attention is a state of his argument or opinions as muddiness is a state of the roads. When I attend to the fact that yesterday I had certain sensations, my attention is not a mode or form of existence now enjoyed by my past sensations. It would seem that not only conation but cognition evades "introspection under test conditions".

V

WARD AS A PSYCHOLOGIST

§ 1. *Introductory.*—Ward has dealt with all the main problems of general Psychology; and he has thrown fresh light on every one of them. To do justice to his work it would be necessary to follow him carefully and critically in his treatment of each of these special topics. This is a task which ought certainly to be undertaken soon by some enlightened critic. I hold it to be especially needful, because I am convinced that there is much that is of permanent value in Ward's detailed work which has not yet been assimilated and utilised by others.[1] But within my present limits I cannot attempt anything of the sort. I must confine myself to his general *Psychological Principles*, to the central scheme which gives so remarkable a unity and coherence to his whole procedure.

There are some psychologists of the present day for whom this central scheme is a stumbling-block on the threshold which more or less bars understanding and appreciation of Ward's work as a whole. The present article will have fulfilled its purpose if it helps to remove or mitigate difficulties of this sort—at least for those who are not dogmatically prepossessed with the view that psychology must be merely a special development or application of biology or physiology or any other physical science.

§ 2. *The Distinctive Aim of Psychology.*—According to Ward the psychologist is always concerned with some concrete individual experient—"man, mouse, or monkey"—who feels, knows, and is active in the way of attending, striving, and willing. It is the exclusive business of psycho-

[1] I by no means except myself.

logy "to analyse and trace the development of individual experience as it is for the experiencing individual"[1]—the psychological subject. The very being of such an individual experient consists in being cognitive, in being active and in being pleased or the reverse. It is therefore with the knowing, feeling, and striving of the psychological subject that the psychologist is primarily concerned. If he could deal with these alone without reference to anything else, they would by themselves constitute the whole subject matter of his science. But this is essentially impossible. It is even more impossible than it is for the biologist to treat of living organisms without taking account of environing conditions, *e.g.* food and air. To know is to know something: action presupposes not only a real being which acts, but a real being which is acted on and reacts; in feeling we are aware of something as agreeable or disagreeable. Thus psychology no less than common sense and the physical sciences is bound to take account of the objective world. But it considers this world from a standpoint peculiarly its own. The term "objective" tends to be ambiguous—it has two meanings or rather two sides to its meaning, which, though they are mutually complementary, may be and have been each of them one-sidedly emphasised to the exclusion of the other. In its most familiar use at the present day, "objective" means what really is in contrast to what appears, but does not appear as it really is. In this sense, the primary qualities of matter have been held to be objective and the secondary to be mere subjective appearances. One-sided emphasis of this meaning easily leads to a second step, in which appearance is not only distinguished from reality, but divided from it. "Objective" is taken to mean what really exists independently of its appearing truly or falsely, obscurely or distinctly, to any mind, so that it would have been equally objective if there had been no such thing as mind at all. Whether or not there is any such reality, to call it an object or objective is to do violence to the use of the word object in ordinary language. For common sense, an object is always someone's object: it is the object of

[1] *Psychological Principles*, p. 104.

someone's attention, desire or aversion, hope or fear, pursuit or avoidance, etc. It is perceived or thought of by someone; in some way it appears or is presented to them. It may not indeed appear as it "objectively" is. To understand this we must recognise that, to be an object at all is to appear in some fashion to someone, yet the object is not simply identical with its appearance. It is rather that which appears. Hence, when it does not appear as it really is, we may say that the appearance is not true to the real nature of the object, *i.e.* is not "objective".[1]

What Ward means by object is fundamentally the same. He starts from Common Sense. "Wherever experience is inferred, Common Sense is right in positing a real agent answering to what we know as Self and interacting with another reality which we know as the World."[2] But the object, so concerned, has two aspects. It is (1) something real and really distinct from the self or any modification of the self: but, in order to be an object, it must (2) appear or be presented to a knowing, willing, and feeling subject. There are therefore two ways in which it may be considered according as our leading interest is in the one aspect of its being or in the other. Wherever the interest is not psychological it is directed to objects as these really are; we seek to make appearance more true and adequate, or at least safer guides to efficient action. On the contrary, psychological interest centres in the fact of appearing as such. The psychologist is concerned with the objective world as it is variously presented to different individuals, men or animals, and variously presented to the same individual in different stages and phases of his life history. Ward uses the general term "presentation" to indicate that objects are considered from this point of view. But a presentation is for him always the real object considered as it appears to this or that individual subject. He is therefore untouched by the criticism implied in Professor Strong's epigram:

[1] Though this use of "objective" is explicable, it should be noticed that it is not the original meaning of the word. "Objective" existence in the schoolmen and in Descartes is existence in a mind as distinguished from formal or actual existence.

[2] *Psychological Principles*, p. 30.

"When I present a lady with a bouquet of flowers, I do not present her with the presentation of the flowers, but only with the flowers."[1] Ward would agree: but he would still insist that there is a vital difference between considering the flowers as, *e.g.*, botanical specimens and considering them as a present to a lady. It is only from the second point of view that we have to take account of how the lady as an individual subject is affected by them and how she reacts. It is only from this point of view that the terms present and presentation are properly applicable.

Objects, as presented to an individual subject, undergo changes and enter into relations with each other of which they are otherwise incapable. Inasmuch as they are his objects they have a history which is inseparably one with his history and cannot belong to them independently of him as their owner. In asserting that "this house is built of brick", I assert what might be true if I had never existed. It is otherwise if I asserted that "this house reminds me of my home". Here there is a "multiple relation" which essentially involves not merely "this house" and "another house", but also my mind. It is therefore distinctively a psychological fact. So in general are retention, reproduction, assimilation, association, etc. Objects are retained, reproduced, assimilated, associated; but only inasmuch as they are someone's objects—so that what occurs to them occurs to him. Conversely also, "whatever admits of psychical reproduction and association" may be regarded as "an object presented to a subject".[2] From this point of view, different kinds of objects have been distinguished as "sensations, movements, percepts, images, institutions, concepts, notions".[3] All of these are (1) "more or less attended to and (2) can be variously combined together and reproduced". Ward comprehends all of them under the common term *presentation*.

In Locke, Descartes, and other writers, the term idea

[1] *The Origin of Consciousness*, p. 37. Quoted by Prof. Dawes Hicks to reinforce a criticism of his own. I do not know whether Strong himself meant to refer to Ward.

[2] *Psychological Principles*, p. 48. [3] *Ibid.* p. 46.

was similarly used, but with a very important difference. In them the term idea is initially connected with a theory of knowledge, which not only distinguishes but divides appearances from the reality which appears. So ideas for them are subjective modifications or mere contents of consciousness, and, as such, contrasted with a real existence which they are supposed to represent. The impossibility of finding any satisfactory bridge between such ideas and real existence then leads naturally, as in the transition from Locke to Berkeley, to subjective idealism, for which the distinction between a real existence and appearance to an individual subject is lost and *esse* is identified with *percipi*. Now those who held this "epistemological" doctrine, finding an impasse in other directions, were driven, through sheer helplessness, to pursue psychological inquiries and, in large measure, to substitute psychology for philosophy. Hence, "however surely their philosophy was foredoomed to failure, there is no denying a steady psychological advance as we pass from Locke to Hume and his modern representatives".[1]

Locke, Berkeley, and Hume were driven, owing to their philosophical preconceptions, to adopt the standpoint proper for psychology. It by no means follows that the psychologist as such is bound to accept their philosophical doctrine or even to use it as a working hypothesis. Certainly Ward does neither: otherwise his fundamental view of subject and object as two real factors really interacting with each other would be impossible. Such criticism as Mr. Pritchard's[2] is therefore based on sheer misunderstanding. When Ward asserts that "of all the facts with which he deals the psychologist may truly say that their *esse* is *percipi, in so far as such facts are facts of presentation*",[3] it is plain that the statement is essentially qualified by the last clause which I have italicised. It is as if one should say that for an arith-

[1] *Psychological Principles*, p. 27.

[2] "A Criticism of the Psychologists' Treatment of Knowledge", in *Mind*, N.S. Vol. xvi. p. 21. Dawes Hicks partly corrects this misunderstanding (*Mind*, N.S. Vol. xxx. p. 4). But he himself, as I shall point out later, is not free from it.

[3] *Psychological Principles*, p. 27. Italics mine.

metician the *esse* of things is to be numerable, or that for an election-candidate the *esse* of men and women is to be voters.

I am, however, far from denying that there are difficulties in Ward's position which make misunderstanding excusable. What these are, and how far they can be met, I shall presently consider. But first I must say more about the "standpoint proper for psychology".

§ 3. *The Psychologist and His Psychological Subject.*— There is a fertile source of psychological error, named by James "the psychologist's fallacy", which had previously been defined by Ward as "a confusion between the standpoint of a given experience and the standpoint of its exposition".[1] This fallacy has two forms, one direct and the other inverse. In the first, the psychologist unguardedly transfers to the psychological subject knowledge and experience which belong not to it, but to himself. This is exemplified by any attempt to substitute for a psychological treatment of sensation an account of the physiological conditions under which it occurs. The properly psychological question is what sensations are for the individual who experiences them; but for him they are not initially the effect or sequel of a train of antecedent events; they are primary beginnings. They are "what comes first in the individual's experience and is there simply and positively real". Substituting the physiological for this psychological standpoint leads to the view that sensations are modifications of the subject or, at any rate, that they are, like their nervous correlates, inside the body. It then becomes a problem admitting of no solution how the psychological subject can ever know the world outside him and his own body as part of it. Physiology itself therefore ought to be impossible and the physiologist in substituting his own standpoint for that of psychology has committed logical suicide. It is by no means implied that physiological data and conceptions are not in any way useful in psychology. On the contrary, they are very useful indeed. To deny this is to fall into the inverse form of the psychologist's fallacy, which arises in an uncritical attempt to

[1] *Psychological Principles*, p. 19.

avoid the direct form. The exclusive business of the psychologist is to give a coherent and truthful account of "the development of individual experience as it is for the experiencing individual". But there is an essential difference between this experience itself and what the psychologist knows and seeks to know about it. His standpoint and outlook cannot be identical with those of the individual he is studying. Otherwise, in order to study a baby's mind, he must himself become a baby and so cease to be a psychologist. No data, conceptions, distinctions, hypotheses are illegitimate in psychology, if and so far as they help relevantly to answer properly psychological questions.

It is only at an advanced stage of mental development that the intensity, quality, and extensity of sensations are distinguished from each other. None the less the psychologist is justified in making the analysis which his psychological subject does not make. He is justified, because the sensations as immediately experienced really have this sort of complexity. Psychological analysis is by no means coincident with psychical analysis.[1] According to Ward, the same fallacy is committed by those who deny that the contrast of subject and of object is primordial, on the ground that the two are not distinguished by the primitive mind. Because "a subject whose presentations were all sensations would know nothing of the difference between subject and object", it is urged that no such difference would be there.[2] Ward replies that though "we are bound to describe an infant's state of mind truthfully, that is no reason for abandoning terms which have no counterpart in his consciousness, when these terms are only used to depict that consciousness as it is".

Professor Dawes Hicks is unconvinced by this reasoning.[3] I presume that according to him the difference as well as the recognition of it is of such a nature that it cannot be primordial. "For my part", he says, "I find it well-nigh

[1] "By *psychological* analysis we mean such analysis as the psychological observer can reflectively make; by psychical analysis only such analysis as is possible in the immediate experience of the subject observed." *Psychological Principles*, p. 105 note.

[2] *Psychological Principles*, p. 48. [3] *Mind*, N.S., Vol. xxx. pp. 16-17.

impossible to assign any meaning to the phrase 'awareness of an object' which does not involve applying to that of which there is awareness a number of predicates—*e.g.* independence of the act of apprehending—that even in their crudest forms must obviously be altogether beyond the range of the primitive mind." This seems to miss the point at issue. The primitive mind does not apply the predicate. The individual does not initially say to itself: "What I am now aware of may exist when I cease to be aware of it". None the less if what he perceives is such for him that, when due motive and occasion arise, he can regard it as persisting in the intervals of perception and if he can never come to regard pleasure or pain as persisting when they are not felt, we may truly say that from the outset there is a difference for psychological, though not for psychical, analysis between subjective feeling and presented object.

I would add that the most primitive distinction between self and not-self takes the form of a rudimentary distinction between the individual's own body and other things. It must be a very primitive stage of development, indeed, in which this distinction is not apprehended at all. As for a supposed stage in which there is not only no distinction but no experienced difference between the embodied self and its environment, I would not deny that this is abstractly possible. But there is no evidence that it ever exists. Further, if it did exist, there would be an absolute breach of psychological continuity between it and the higher stage at which the difference emerges. Thus the difference would after all be primordial in the sense of being an absolutely fresh beginning and not a development.

§ 4. *Plasticity of the Presentation Continuum.*—There is much in Ward's account of the development of individual experience which naturally suggests that he regards presentations as a *tertium quid*, having a separate existence of their own, intervening between the knowing mind and the real world. I am convinced that this is a misunderstanding. But it is one from which, until recently, I was not myself free. I am, therefore, not surprised that even so careful a student of Ward as Dawes Hicks also shares it.

As Dawes Hicks has clearly shown, the question is one which vitally concerns psychology. The psychologist is not indeed bound to have a theory of knowledge which will at all points stand the test of philosophical criticism. It would be rash to assert that any philosopher is in possession of such a theory. But the psychologist must at least have a view which really works in his own undertaking. He sets out to trace the development of the knowledge of the world as it now is for common sense and science. He therefore stultifies his whole procedure if he assumes that the mind cannot apprehend this world and what it contains, but is throughout dealing with an intervening veil. Does Ward really make this suicidal assumption?

All depends on the view taken of sensation as "what comes first, immediately, and alone, in the individual's experience"[1] and answers to reality in the primary sense of the term. If I am right, this means (1) that in sense-experience a real existence directly appears to the individual; (2) that it need not and initially does not appear as it really is;[2] (3) that in the development of knowledge it comes to appear more and more truly and adequately;[3] (4) that sensuous appearance or presentation has no distinct existence of its own as a "subjective modification" or *tertium quid*; it is always the reality itself immediately appearing.

How is this view to be reconciled with Ward's account of the development of knowledge as throughout dependent on the interaction of the *real* subject with its *real* object and more especially with the part which he assigns to mere attention in the process? He extends the term Attention to cover both theoretical and practical activity. What is distinctive of practical activity is that Attention is in it directed to "motor presentations" which are thereby translated into actually experienced movements of the body, producing change in its environment. This happens, for instance, when I actually dissect a flower. Now, Ward seems to hold as a

[1] *Psychological Principles*, p. 103.

[2] If I were dealing with ultimate philosophical problems, I should press the question how any thing can appear immediately and yet not appear as it is.

[3] According to Ward the final truth is that it is really a system of monads.

fundamental principle that we also produce objective change, though in a very different way, when by attentively contemplating a strange flower we gain a more distinct and detailed apprehension of its partial features. On the ordinary view of common sense, we merely distinguish differences which pre-exist; and if in attending we altered the object of attention we should so far defeat our purpose. Ward's view seems essentially opposed to this. According to him there is not merely discrimination of pre-existing differences; new differences actually emerge, through the interaction of subject and object. What was at the outset a relatively vague total presentation is gradually transformed into a definite pattern. The process is threefold: (1) There is a partial modification of the relatively vague and blurred whole whereby it becomes more definitely diversified. This is Differentiation. (2) Previous differentiation persists; this is Retentiveness. (3) The persisting modifications are further modified so that there is progressive increase in complexity, comparable to "the advance from the egg to the chicken". This is Assimilation—the growth of new differences out of old. Differentiation, retentiveness, and assimilation taken together constitute what Ward calls "plasticity". Ward describes the whole development of knowledge—apart, at least, from inter-subjective intercourse—as proceeding through progressive changes in a plastic presentational "Continuum" or tissue. Further, the process throughout is an interaction of subject and object in which the action of the subject in attending is the formative agency. In attending, the subject *alters* its object: it makes, instead of merely apprehending differences. But, as Dawes Hicks rightly insists, in merely attending to a flower we do not by any action of ours generate the differences between stamens, pistil, etc. If, therefore, the presentation of the flower is plastic, this presentation must have an existence of its own separate from that of the flower, which is not plastic. Differentiation, assimilation, and retention are not processes which take place in the flower.

Ward, for purposes of exposition, conceives mental development "beginning at the lowest level of life and

advancing continuously up to the level of man"[1] as taking place in the life history of a single imaginary individual. This individual has throughout one and the same sensori-motor presentation continuum which is always in some degree qualitatively diversified and always possesses the fundamental characters of intensity, extensity, and protensity. But at the outset definite and specialised complexity is at a minimum both on the sensory and on the motor side. On the motor side, there is "original diffused mobility, which is little besides emotional expression"[2]—*i.e.* immediate expression of pleasure or pain. This motor continuum becomes gradually differentiated into comparatively distinct movements which are combined and co-ordinated in more and more special ways in adaptation to environing conditions. What especially interests us here is that, according to Ward, sense-experience develops in just the same way. The primitive presentation continuum approximates in its nature to what we now experience as organic sensation; external stimuli of various kinds modify this in a way corresponding "very closely to what is called the general vital action of contact, light, heat, etc., as distinct from the action of these stimuli on specially differentiated sensory apparatus".[3] It is only through a long process that the specific qualities which we now experience as light and colour, sound, touch, taste, and smell, emerge from the primitive background of "general" sensibility. Again, within each of these special modes of sentience there is further differentiation, generating, *e.g.*, the variety of specific colours and sounds. The whole process whereby the presentational continuum becomes more diversified and complex is essentially interaction of a real self with a real not-self; and the directive and formative agency is throughout Attention. But there is not transformation of the real world corresponding to this transformation of the sensori-motor continuum. However differently the environment of an oyster may appear to the oyster itself and to a human observer, it is still the same environment. It would seem to follow inevit-

[1] *Psychological Principles*, pp. 74-75.
[2] *Ibid.* p. 50; cf. pp. 52-53.
[3] *Ibid.* p. 110.

ably that the presentational continuum, which is plastic, cannot be any part of the real world which is not correspondingly plastic. If we attend to presentations we do not attend to things. Appearance and reality seem to fall apart as distinct existences. This argument seems strengthened when we consider the correlation of psychological and biological development. Ward, following irresistible biological evidence, holds that the differentiation of the presentation continuum is not only analogous to, but strictly correlated and parallel with the progressive differentiation of the sense organs and nervous system. "Wherever there is psychical plasticity, there is also neural plasticity".[1] But there is no such correlation and correspondence between nervous changes within the living bodies of men and animals on the one hand, and changes in their environment on the other. Ward, by his free use of biological data, seems compelled to be false to the psychological standpoint from which he started.

The explanation is to be found in his view of the connexion of body and mind. This is most compactly expressed in the saying which he quotes from Leibniz: "the point of view of the monad is its body". The reference as he proceeds to explain "is not to the physical aspect of the organism. What is meant is the psychical or 'intentional' aspect of the body as the medium of intercourse with the objective world, its natural and social environment".[2] To explain this position in the form in which Ward states it, we must refer to his metaphysical monadism, and especially to the points in which this agrees, and disagrees, with that of Leibniz. They agree in holding that what really exists as distinguished from its sensuous appearance is, ultimately, a system of monads. Each monad mirrors this real world differently according to its distinctive place in the whole system; and it does so primarily through its sense-experience and in terms of sense-experience. Each then has its own special "point of view" or special "perspective". The word "mirrors" and the word "perspective" are for both Leibniz and Ward only metaphorical. But they interpret this

[1] *Psychological Principles*, p. 97. [2] *Ibid.* p. 428.

figurative language in radically different ways. Both indeed emphatically deny that sense-experience is an effect produced in each monad by interaction with others. Here, however, agreement ceases. According to Leibniz each develops according to the law of its own being without any sort of causal relation to the others. The relation between them in virtue of which each internally represents the whole system is one of correspondence and co-variation presupposing a pre-established harmony. According to Ward, the monads appear to each other *immediately* by way of sense-experience, although they do not sensibly appear as they really are but only as phenomena,[1] yet there is no *tertium quid* in the way of ideas conceived as vicariously representing their objects. What we apprehend phenomenally as the body of a man or animal is a group of monads related in a peculiarly intimate way to a central monad, the human or animal mind. The relation is such that the rest of the world sensibly appears to this central individual in a manner and an order determined and limited by its appearance to the monads of the body. To speak metaphorically, it is as if the central monad gathered into focus the scattered rays reaching it through the body monads, and were otherwise without communication with the world beyond. Hence, Ward agrees with Leibniz in asserting that "a soul without a body would be a deserter from the general order" and that the point of view of a monad is its body.

This general theory of sensible appearances is by no means inseparable from the metaphysical doctrine with which it is intertwined in Ward. We have only to recognise what in any case can hardly be denied, that the living body in its relation to mental process[2] has a function which is hidden from us when we consider it merely as a physical phenomenon. This being understood the essential points are: (1) that in sense-experience the real world appears

[1] Here the contrast between things as they are in themselves and things as they sensibly appear is startling; and it is not smoothed over for Ward as it is for Leibniz by the view that sense is confused thought.

[2] What Ward calls its "intentional or Psychical aspect".

directly without any intervening *tertium quid*; (2) that none the less it appears differently to different individuals and to the same individual in different stages and phases of his development; (3) that the factor which determines how it shall appear is the particular constitution of the bodily organism and the changes which occur within it. So formulated, the general position might be accepted, *e.g.* by Mr. Alexander. According to him sensible appearance differs from what really exists only through the processes of "selection" and distortion. But selection and distortion are throughout conditioned by the body.

We can now understand how it is that Ward regards Attention as always involving real interaction between subject and object. The subject acts directly on its own body just as it does in practical activity. But the resulting adaptation of the sense-organs and modifications of the neural process are not merely physical phenomena. They have also an "intentional" aspect. Hence they determine changes in the way in which other things appear to the subject. They alter the objects attended to as presentations to the individual if they alter them in no other respect. Hence they alter the way in which the subject is agreeably and disagreeably affected by presented objects and so determine its practical activity. It is from this point of view that the whole doctrine of the plasticity of the presentation continuum has to be interpreted.

The true drift of this doctrine comes most clearly to light in the very interesting treatment of psychological heredity in Chapters XVII. and XVIII. of the *Principles*. The constitution of the presentational continuum or psychoplasm is there treated as something which is inherited together with the constitution of the body. In neither case is there literal transference from one generation to another. The parent hands over to his offspring neither his own body nor his own mind. What is inherited is always "a likeness to themselves *said* to be bequeathed by forbears to their descendants. The plain fact is simply that like begets like."[1] The mental likeness is the counterpart and

[1] *Psychological Principles*, p. 422.

correlate of bodily likeness, when the body is considered in its "intentional" aspect. This inherited *Anlage*, as Ward calls it, not only directly preconditions the affective and active self by determining the range and character of organic sensibility and of motor capacity; it also predetermines the way in which the surrounding world shall be sensibly presented. The *Anlage* of this or that individual has a long ancestral history behind it in which, according to Ward, subjective activity plays at every stage an indispensable part. The living body is "continuous with other such bodies that were in like manner *angelegt* and each in turn further differentiated by the subject whom it invested". This influence of the mind over the body is exerted at every step through the entire line of the individual's descent from primeval protozoan to his own immediate forbears.[1]

§ 5. *Sense and Understanding.*—The preceding account of the development of knowledge is admitted by Ward to be essentially incomplete. It consists, as we have seen, in a process whereby a presentation continuum which is primarily sensori-motor is progressively modified so as to become more complex and differentiated. But the presentation continuum or "psychoplasm" of each individual is his own private and incommunicable property. As "the point of view of the monad is its body", each individual will have his own particular presentation continuum just as he has his own particular body, related in particular ways to its environment. According as the bodies of different individuals are similar or dissimilar, the real world which they apprehend will wear a correspondingly similar or dissimilar appearance to each. "A gannet's mind possessed of a philosopher, if such a conceit may be allowed, would certainly afford its tenant very different spatial experiences from those he might share if he took up his quarters in a mole."[2] At our present level such limitations have been transcended. The individual has overleaped his own shadow. The world as now conceived by common sense and science approximates

[1] *Psychological Principles*, p. 422.

[2] *Ibid.* p. 144. For further illustration and special reference to space, see the context of this passage.

in its character to the world as it might appear to a disembodied subject, to whom all its parts would be equally and in like manner present. Such a subject would, so to speak, look down on what is particular and peculiar in the diverse individual experiences of men and animals, would explain this as due to their bodily organisation and circumstances, and in so explaining would discount it as irrelevant to the nature of things as apprehended from his superior and more comprehensive standpoint. This universal outlook characterises common sense and in a still higher degree science. How is it reached? We cannot account for it merely through progressive differentiation of an original sensori-motor continuum. There must be another factor. This, according to Ward, is just the common sense in which human individuals participate. It is the outcome of that complex social intercourse which language makes possible. Through language "each several mind may transcend its own limits and share the minds of others". The mental development of each is still exclusively a development within his own life history. But "the materials for this development no longer consist of nothing but presentations elaborated by a single mind". A transparent and responsive world of minds is added to the dead opaqueness of external things.[1]

It is only as a result of such intersubjective intercourse that "when ten men see the sun or moon" it may, in spite of differences in its sensible appearance to each, be apprehended by all of them as one and the same in its existence and nature. For all, it has, *e.g.*, individually the same shape and size and position in space. This is so inasmuch as space and these spatial characters are conceived, not merely perceived; and are conceived only as the outcome of a process in which many individuals compare their experiences and gradually correlate them in a more and more coherent system. The individual thus comes to apprehend the world from what has been called a "trans-subjective" standpoint as contrasted with the "immediacy and immanence with which all experience begins".

But even at this level the common object is still a pheno-

[1] *Psychological Principles*, p. 286, note.

menon; it is still ultimately conceived in terms of sensible appearance, however much this may be elaborated by intersubjective intercourse. Ward, therefore, denies that we are justified in assuming the world *as it thus appears*, with its characters of extension, shape, etc., to say nothing of colour or sound, to exist *per se* independently of its appearance to any subject. It is indeed a natural fallacy to conclude that because a phenomenal object, as such, is independent of this or that individual experient, it is therefore independent of all collectively. But such reasoning "is about on a par with maintaining that the British House of Commons is an estate of the realm independent of each individual member, and that therefore it might be addressed from the throne, for instance, though there were no members".[1]

Ward's position here is easy to misunderstand: and he has not sufficiently guarded himself against misunderstanding. He does not, as I interpret him, mean to say that for individual, as contrasted with trans-subjective, experience the *esse* of things is *percipi*, so that actual existence consists simply in actual appearance and nothing beyond this. On this view, it would be impossible for the individual to apprehend things as continuing to exist during the intervals of perception. But Ward finds no such difficulty at this point as troubled Berkeley. "As we have existed—or more exactly, as the body has been continuously presented—during the interval between two encounters with some other recognised body, so this comes to be regarded as having continuously existed during its absence from us".[2] It is true that, according to Ward, this step is taken only at a stage in which, through the experience of resisted effort, we apprehend something extended as exerting a counter effort, and therefore as actively occupying space. But such solidity, or space-occupancy, which is itself incompatible with the Berkeleyan view, is apprehended at the level of individual perception. Neither the apprehension of solidity nor that of persistence presupposes the "universal experience" which arises through intersubjective intercourse.

[1] *Naturalism and Agnosticism*, Vol. ii. p. 171.
[2] *Psychological Principles*, p. 165.

What Ward takes to be absent in merely individual experience and present in universal experience is the distinction between true and false appearance, between that which is and that which seems. " 'It shines, it moves', not 'It appears to shine, it appears to move', would be the language of an individual percipient."[1]

Ward has certainly done a great service by his massive insistence on the essential importance of social intercourse as giving rise to the human view of the world, as it appears to common sense and science, in contrast to the limitations of the animal mind. What I, in agreement with other critics, find unsatisfactory is the account given of the relation of this trans-subjective stage to the previous course of mental development. Ward himself maintains that the transition is continuous in a way which is psychologically traceable; and he holds that in tracing it he has shown the continuity of sense-knowledge and thought-knowledge. Now, it seems to me that he does not and cannot show such continuity without presupposing what he ought to account for—without presupposing that something is thought of which does not immediately appear in sense-experience.

His critics urged the question—"How, if every subject is confined to his own unique experience, does this inter-subjective intercourse ever arise?"[2] He answers that "as the sensori-motor adjustments of the organism to its environment—*generally*—advance in complexity and range, there is a concomitant advance in the variety and intimacy of its relations—*specially*—with individuals of its own kind".[3] "When its (bodily) self has become an object, the objects which resemble it become other selves or 'ejects'."[4] Here the essential point seems to be missed. Ward takes for granted as a matter of course that the other bodies like its own will be apprehended by the individual as embodiments of other selves like its own. I admit that, *apart from special theories*, this is a matter of course. The question is whether it is so

[1] *Naturalism and Agnosticism*, vol. ii. p. 166. It should be remembered that even true as distinguished from illusory appearance is still only phenomenal.

[2] *Psychological Principles*, p. 33.

[3] *Ibid.* p. 34.

[4] *Ibid.* p. 33.

on Ward's view. Up to this point cognitive advance has been supposed to consist merely in the progressive differentiation of an original sensori-motor continuum. The mere increase in the complexity of this original datum cannot alter its fundamental character any more than an organism can be so differentiated as to cease to be protoplasm. But the sensations experienced by *A* cannot, *as such*, appear to *B* as part of the content of his own sense-experience; they are distinguished from his own as being another's. The same holds for *A's* awareness of *B's* feelings and strivings. *A* thinks of, but does not immediately experience, the experience of *B*. Thought is involved which transcends the immanence and immediacy of sense, abstractly considered. The thought is inseparably blended with sense-presentation and, so to speak, embedded in it. None the less it cannot be accounted for by any differentiation however complex of an original presentation continuum which is supposed to be merely sensori-motor.

If thought first arises after previous stages which can be accounted for without it, it emerges as a radically new faculty: there is a breach of continuity. But if we examine critically Ward's treatment of the development of the individual percipient prior to the beginning of the trans-subjective stage, we find that it already involves in manifold ways thought as well as sense. To apprehend an object as persisting when it is no longer perceived is to think of existence which is not sensibly presented. In discussing perceptual recognition, Ward lays exclusive stress on the familiarity and the practical facility which arise through attention to impressions frequently repeated in a similar way. What Ward has to say here is in itself true and very important. But such familiarity and facility cannot be substituted for, but rather presuppose, that mental attitude which is expressed in language by "another" or "another such". They cannot be substituted for what Ward himself calls "qualitative identification" and treats as more primitive than the apprehension of objects as persisting when not perceived. I might go on to examine from the same point of view Ward's treatment of spatial and temporal

perceptions and of images as ideas. My space is too limited for this. I shall therefore proceed at once to urge that thought, as I have defined it, is essential to subjective activity—to what Ward calls Attention and Conation.

Ward himself, when at an advanced stage of his work he comes to treat of thought at the trans-subjective level, recognises that he is not dealing with something radically novel, but with a special development of a feature of mental life which was present even in its rudimentary beginnings. He defines thinking as "finding an *ax* that is *b*".[1] It is "always a search for something more or less vaguely preconceived, for a clue which will be known when it is found by helping to satisfy certain conditions". He then proceeds: "There is a continuous development from the extreme of mere blind trial and error—where the only clue is 'anything, anything, only not this'—towards an opposite extreme where a crucial disjunction 'either . . . or' can be precisely formulated".[2] On this I would remark that the development is not continuous if we suppose that "trial and error" are at the outset merely blind. If this were so, there would be trial and error only in a metaphorical sense and from the point of view of an onlooker. What is sought must be predetermined for the psychological subject himself as a change in the given situation in those respects in which this situation is felt as unsatisfying. This implies that something is thought that is not given in actual sense-experience. The immediacy of sense is so far transcended.[3] If, on the other hand, we begin in chronological order with an experience which is absolutely blind, there is a breach of continuity between this and even the most rudimentary thought. If we use the word Conation for both stages, we are using it in radically different senses.

[1] *Psychological Principles*, p. 295. [2] *Ibid.* p. 294.

[3] Ward says in a note (p. 295) that "at the lowest sensory level there is nothing answering to *b* in the formula, an '*ax* which is *b* '; there is just a subjective state, the pleasure of success and no more". But the subject is dealing with a concrete and specific situation, and *b* is determined as some relevant change in this. Of course, he does not himself analyse his experience as the psychologist analyses it. In dealing with questions of this sort, we must constantly bear in mind the distinction between psychical and psychological analysis.

What has been said of practical conation holds also for attention in its theoretical aspect. What is here sought is more complete apprehension of an object as initially given or presupposed. The tendency is to make the object more distinct and to relate it to its context—to develop it more fully in consciousness. Even in the most primitive stages of the process there must be some inarticulate counterpart of the question which we should formulate as: What? or What next? or What more?

The view which emerges from such considerations is that so far as mental development can be regarded as continuous, as Ward takes it to be, sense and thought must from the outset inseparably interpenetrate, so as to vary concomitantly and develop *pari passu*. Sense without thought would be, as Kant says, blind, and could not be properly called Knowledge at all. Thought without sense could not exist, because there would be nothing to determine its object.

How far Ward, in the end, would agree or disagree with this view, I find it hard to decide. In the passage which I have just quoted he seems largely to agree. But the passage occurs only after he has fully treated of individual experience apart from intersubjective intercourse. In this earlier part of his work he neither expressly states the general principle nor consistently takes it for granted. On the contrary, he tends throughout to conceive the whole development as consisting merely in progressive modification of a sensori-motor continuum. The dominance of this conception makes his treatment of special problems more or less one-sided. What he has positively to say on the sensori-motor aspect of mental process remains, in the main, as true and valuable as it is original. But his comparative neglect of the other equally essential aspect creates difficulties which form a stumbling-block to some readers.[1]

In dealing with spatial perception, the factors and processes which he regards as fundamentally important are really operative and really essential. But, conceived as he

[1] More especially to those who, like Mr. Pritchard, are inclined to identify Psychology with subjective idealism.

explicitly conceives them, they account only for an increasingly complex and definite pattern within the sensori-motor continuum. They cannot therefore, of themselves, result in what is ordinarily understood by spatial perception, in which extension and local relations are apprehended as characterising something capable of existing and persisting independently of changes in sense-experience, however complex these may be. Ward cannot, indeed, refer such perception wholly to the trans-subjective stage. The contrary is implied at least in his account of projection and space occupancy. But how he can legitimately reach this view on the assumptions from which alone he explicitly starts remains obscure.

In discussing temporal perception, Ward insists throughout that "it is a long step from a succession of presentations to awareness of succession".[1] It is necessary to awareness of *a* as before *b* and *c* as after *b*, that *a*, *b*, and *c* shall be simultaneously presented. On the other hand "to ask which is temporarily first among a number of simultaneous presentations is unmeaning."[2] It seems to follow that succession cannot be known at all if we mean by presentations merely modifications of the sensory continuum. This is not, however, Ward's view. The difficulty is, he holds, fatal to the possibility of any awareness of succession prior to the stage in which trains of free images emerge. But at this stage it is overcome. It is so "because with each distinct representation *a*, *b*, *c*, *d*, there is probably connected some trace of the movement of attention of which we are aware in passing from one presentation to another". He calls such residual movements of attention temporal signs. But such temporal signs, even if we admit their existence, are present experiences in the same way as images are. They are not themselves thoughts of experiences which are *no more* or *not yet* actually experienced. Thus the original difficulty recurs. What seems to hide this from Ward and his readers is his use of the words "representation" and "idea" as interchangeable with "image". An image is, according to him, a special and relatively late differentiation or outgrowth of

[1] *Psychological Principles*, p. 214. [2] *Ibid.* p. 214.

the sensory continuum. In calling it a representation it seems to be further implied that the subject represents something else, *e.g.* a past or future impression, by means of it. This again implies that a present modification of the sensory continuum, though it cannot *be*, may none the less determine the thought of what precedes and follows it. But once this is presupposed, there is no good ground for denying an inarticulate awareness of time transience of *no more* and *not yet*—long before the stage of free images is reached. Ward himself asserts that the experience of change is ultimate,[1] but how can there be an experience of change which is not an experience of transition? It may be said that the transition may be blindly experienced, without being known. I reply that this can hardly hold good for the passage from conation to what, for the subject himself, is fulfilment or disappointment, or for the change in the appearance of an object in successive phases of the process of attending to it. The dog in the fable who jumped at the bit of meat reflected in the water was surely aware of a transition. If Ward had started with a rudimentary time perception, what he had to say about its later stages would have retained its full value and would have gained in clearness and cogency. Resisting a strong temptation to pursue this topic in further detail, I may sum up as follows. It is misleading to speak, as Ward does, of a continuous development from sense-knowledge to thought-knowledge All knowledge and all development of knowledge involves both thought and sense in inseparable unity. A blind sense-experience is not knowledge at all and could not become so by any process, however continuous, of differentiation and integration. It is especially important to keep this in view in discussing Ward's view of the nature of the self or "pure ego".

§ 6. *The Pure Ego as Active and Feeling Subject.*—"By pure ego or subject," says Ward, "it is proposed to denote the simple fact that everything experienced is referred to a self experiencing".[2] But, on further examination, this fact turns out to be anything but simple, if by simple we mean easy to understand. The pure ego, as that which

[1] *Psychological Principles*, p. 212. [2] *Ibid.* p. 35.

knows, feels pleasantly and unpleasantly, and attends, is regarded as a distinct existence, set over against the objective world as presented to it. It is a distinct agent, operating on the presentations which confront it and being in turn agreeably or disagreeably affected by these. It has therefore that relative independence which is implied in interaction. To conceive it aright we must uncompromisingly discriminate, without separating it, from each and all of the objects which it knows, to which it attends, and by which it is consequently affected. How then can it be known at all, seeing that in becoming known it must become an object and so cease to be pure subject. This is a difficulty to which Ward is keenly alive. He meets it in principle by saying that though the pure self cannot be known directly, yet, in an assignable and traceable way, we may indirectly know of it as implied in the existence of presented objects. But such knowledge is reached only as the final outcome of a long and complex process in which the pure ego becomes gradually disentangled from various presentational wrappings which mask and disguise it. Considered generally, as an account of the development of the self and of self-consciousness, Ward's work is here admirable and ought to be carefully studied by every psychologist. But considered as an attempt to meet his own theoretical problem of how the pure ego, as such, can be known at all, it seems to me to be a brilliant failure.

The self, at the outset, is known only in its sensible appearance as a bodily self. In the most primitive stage, the boundary between it and other things is the skin; perception and action are relations between the organism and its immediate present environment; on the side of feeling, it is marked off from other things as the seat of the massive but ill-defined organic sensations with which our earlier pleasures and pains are directly connected. "The body is the only thing directly set in motion through the reaction of these feelings, the purpose of such movements being to bring it nearer to the things for which there is 'appetite' and to remove it from those for which there is 'aversion'." It is thus distinctively characterised by centrality, perma-

nence, and individuality, and "affords an ever-present double of the actual feeling and living self"[1].

With the development of free images there is distinguished "an inner zone of self having still more unity and permanence". There is "an intuition not only of the bodily self doing and suffering here and now", but also memories of what it has done and suffered and anticipations of what it will do and suffer. Adaptation is not only to the immediate environment, but to situations relatively remote in time and space. From this more advanced point of view, the boundary between self and not-self is no longer the skin. The external organs of sensation and movement are coming to be regarded as its property—as instruments which it uses—rather than as part of its being. It is regarded as placed inside the body where the organic sensations, inseparable from emotional agitation, are apparently localised, *i.e.* in the midriff. This is "the imagining and desiring self."[2]

It is only through the development of social communion among human beings that a conception of self becomes possible in which it is discriminated from its bodily double and ultimately from all objects. "As a member of society each one plays many parts—has many social selves or roles —and so he comes first to conceive himself as the actor that sustains or impersonates them all."[3] This actor on the social stage is the *personal self*. The parts which he plays are still only masks or doubles of the pure ego. But they form the last disguise, so that when this vestment is stripped off there is nothing left but the conception of a subject which is subject only and not object. What makes this step possible is "that before he can act, the man has often to think and will, to plan, compare, and rehearse any new part he is striving to play."[4] This presupposes a self behind the scenes which can no longer be identified or confused with any object. Critical reflection on this situation inevitably leads to the conception of a pure ego.

There are two alternative ways of interpreting this account of the development of self-consciousness. In one

[1] *Psychological Principles*, p. 365.
[2] *Ibid.* p. 366.
[3] *Ibid.* p. 370.
[4] *Ibid.* p. 371.

the transition is taken to be from confused to distinct knowledge. On this view, in apprehending the bodily self we *ipso facto* apprehend the pure self—directly or indirectly. We apprehend it inasmuch as it is indiscriminately included in the confused whole—the embodied self. All that is required in order to attain pure self-consciousness is that what is thus confusedly known should be disentangled from its irrelevant setting. But this does not seem to be Ward's view. For him, the empirical self of the lower levels is a "double" which does not include, but is provisionally substituted instead of, the pure ego. Similarly activity and feeling are not originally known either directly or indirectly. Only their presentational substitutes are apprehended. Starting with such assumptions, it is quite unintelligible to me how pure self-consciousness can ever be attained. We must not here press the metaphor of a vestment. When we strip off clothes we can see what is inside them, provided that which is inside is not invisible. But the pure ego is supposed to be initially invisible. That is the essential reason why it is not itself supposed to be originally known but only its presentational doubles. How then can it be revealed, directly or indirectly, merely by removing these empirical substitutes?

There is a further difficulty which Ward himself signalises. The process above described seems to yield only a limiting conception empty of all positive content. "We began with self represented by concentric objective zones, sensory, ideational, personal, spiritual, and end with a *focus imaginarius*, as Kant called it."[1] "But that pure subject or Ego which we reach in our analysis of experience at its rational level stands for no abstraction."[2] Ward's attempt to meet this difficulty is to me somewhat obscure; and no attempt which starts from his assumptions can, I submit, be possibly successful. It is not enough to point out that though our conception of the pure ego is abstract, yet we know that it cannot itself, as it really exists, *be* an abstraction. As *known to us*, it is essentially characterised by feeling and activity. But feeling and activity are as directly

[1] *Psychological Principles*, p. 377. [2] *Ibid.* p. 379.

and positively known as anything can be.[1] I know as positively and directly the qualitative difference between being pleased and being pained as I know that between black and white. Yet Ward's primary position, from which to the end he never departs, is that we "know of" feeling and attention "mediately by their effects; we do not know them immediately in themselves".[2] The difficulty is not met by saying that "experience is wider than knowledge" and that feeling and activity are experienced. What is required is that we should know them *as* they are experienced. "Into the empty form of consciousness", says Ward, "our being fits."[3] But how can it be *known* to fit, if all that is known is the empty form, the positive content not being known, but merely experienced.

From this intolerable position there seems to be no way of escape unless we give up Ward's conception of a pure ego as a single principle confronting the complex content of presentation. So regarded, its knowing cannot be conceived except as analogous to seeing with the bodily eye; and as the eye cannot see itself, so the pure ego cannot know itself. It is true that we can know indirectly what our own eyes look like, *e.g.* by seeing reflections of them; but this is only because our eyes themselves belong to the objective world and are connected by objective relations to other objects. But there can be no such indirect knowledge of the pure subject which *ex hypothesi* stands in exclusive antithesis to the objective world as a whole. In like manner, the activity and passivity of the pure self, its doing and undergoing, must consist in a process going on in an agent quite distinct from the presentational continuum, however closely and constantly it may affect and be affected by presentational changes. Hence, feeling and attention cannot be known in their own nature as positively experienced; if known at all, they can only be known through their effects.

We can hardly avoid the conclusion that Ward's view is untenable. On the other hand, we must take care not to

[1] I admit that they are at first known confusedly, so that it is difficult to discriminate, *e.g.*, pure pleasure and pain from organic sensation; but confused knowledge may be positive and direct.

[2] *Psychological Principles*, p. 58. [3] *Ibid.* p. 381.

throw out the child with the bath-water. He has, in his insistent polemic against presentationism, at least shown the need for some thoroughgoing distinction between activity and feeling as characterising the self in its individual unity and such presentational processes as assimilation, association, etc. The question is whether this distinction can be drawn in a way which is free from the difficulties found in his view of the pure ego.

All turns on the way in which we are to conceive individual unity. Ward seems always to assume that this excludes complexity. His pure self is regarded as a simple being essentially related to a manifold but in principle really distinct from it. The alternative view is that the unity of the individual is the unity of a complex whole, which is indivisible inasmuch as its partial ingredients have not an independent existence of their own such that the whole could conceivably be constituted by taking them separately and then combining them. Individuality, in this sense, is not confined to mind: it is found, *e.g.*, in organic life. But it is in the mental life that it is, beyond comparison, most fully developed and most clearly recognisable.

The form of unity peculiarly characteristic of mental life is commonly called the unity of consciousness. Ward expressly denies that this can be made to account for what he means by the "psychological subject". He does so on the ground that it is a unity not of consciousness itself, but of the "so-called contents of consciousness"—"ideas, objects, or presentations". It thus fails to include "the purely psychological facts of feeling and impulse", and it is just these facts which "compel us to recognise a conscious subject as well as a unity and continuity of the so-called contents of consciousness".[1]

This position follows naturally from Ward's initial assumption that mental development consists in the gradual differentiation of a plastic presentation continuum regarded as, in the first instance, purely sensori-motor. On this view, if we ascribe to the individual subject any activity at all, it can hardly be other than that of an agent operating on a

[1] *Psychological Principles*, p. 36.

given material. But when once we recognise that thought, however rudimentary, is indispensable to the being of any thing which can properly be called an individual self or "I", his argument seems to break down.

I would urge that there is no unity and identity in attention, conation, and feeling, which they do not essentially owe to the unity and identity of their object as such. In attending to a relatively obscure and fragmentary presentation, so as to make it more distinct, detailed, and complete, my attention is throughout one and the same activity only in so far as its object is apprehended as one and the same. So, in attempting to alter a painful situation, there is unity and identity in the conative process only in so far as resulting change is recognised as change in that same situation. It is this sort of unity which is implied when at the level of self-consciousness we refer the various stages and phases of our existence to an identical self. We do not require besides this, and as a precondition of this, a distinct single agent set over against its presentations, as such, and interacting with them. It is true that unity of consciousness, if it is taken as merely cognitive, is not, of itself, the unity of concrete experience; for mere cognition is an abstraction incapable of existing by itself. None the less, cognitive unity supplies the abstract scheme which is progressively realised in the concrete life of conation and feeling. There is cognitive unity in so far as the several distinct items of knowledge are apprehended, not in isolation, but as one with a context beyond themselves and as somehow related to each other within this context. There is cognitive unity inasmuch as objective experience is essentially incomplete so as to open a field for seeking or inquiring—for "finding an ax that is b". But the actual seeking or inquiring is mental activity—what Ward calls Attention.[1] Attention, in this wide sense, is a function of the self in its individual unity and identity, inasmuch as in and through it the unity of the whole mental life is actively expressed, sustained, and developed. Pleasant and painful feelings are affections

[1] Except that Ward recognises a primitive form of attention which is non-voluntary, so non-conative. Here I cannot follow him.

of the self as an individual unity, inasmuch as they are ways in which experienced activity is qualitatively modified according as it is furthered or thwarted.

I do not, of course, assert that there is nothing corresponding to what Ward calls interaction between subject and object. On the contrary, the process by which the individual maintains and develops its own unity can never be purely immanent. It is always essentially a transaction with the not-self, just as vital process is a transaction between the organism and environing conditions. My point is that the subject of this transaction is not what Ward conceives as a "pure ego". It includes objects in so far as these are already known or thought of and thus already enter into individual experience at any given moment. On the other hand, what it acts on and reacts on it is objective being, so far as this is not yet fully and determinately presented. When I voluntarily strike a match, it is no adequate account of what takes place to say that the thought or idea of a certain event realises itself. For the idea is effective only in and through the active process which is a function of the self as a whole. But it is equally true that the peculiar dominance of the idea which leads to its realisation is an immanent phase of the whole process and not merely an effect produced by it in something else. The actual striking of the match, on the other hand, involves what may properly be called interaction between the self and the not-self—and primarily between the self and its body.[1]

Such a view as this leaves no room for interaction between presentations, as such, considered as a process distinct from and co-ordinate with the activity of the self. The distinction which Ward thus describes is rather between two mutually supplementary ways of approaching psychological problems, broadly corresponding to the so-called mechanical and teleogical points of view in biology. All vital process when considered in its partial details is through and through "mechanical".

[1] From the standpoint of psycho-physical parallelism, this will have its counterpart in interaction between the neural process immediately correlated with conscious life and other bodily process.

As, again, the biologist in his piecemeal description of the physico-chemical events and of their relation to each other loses sight of that action of the organism as a whole which determines the concrete interdependence and co-ordination of these partial occurrences—so the psychologist in the piecemeal analysis of presentational changes fails to see the wood for the trees, losing sight of the inclusive activity which is a function of the self as a whole. In both cases there is a natural temptation to posit a distinct agent operating *ab extra*, so as to direct, control, and co-ordinate the partial processes. In biology this supposed factor, known as a "vital principle," is rejected even by those modern biologists who are most strenuous in urging the inadequacy of a purely mechanical treatment of vital process. What I here suggest is that Ward's pure subject is no more indispensable in psychology than "vital principle" is in biology. It is not, it seems to me, required for Ward's own Psychology. Nearly everything which he says about the part played by attention and feeling in our mental life may be understood and accepted, with some change in the form of statement, without accepting his peculiar doctrine of the pure ego. At least, I have found it so. I have only to add, in conclusion, that a close student of Ward can hardly fail to be fully convinced that in some form or other the conception of active subject as an individual unity is essential to anything like an adequate and systematic treatment of psychological problems.[1]

[1] The unity of the living organism is no tenable substitute: the biologist may indeed be driven to recognise some such unity as required to supplement the inadequacy of the "mechanical" point of view. But he cannot, so long as he consistently adheres to the standpoint of physical science, give any positive meaning to it. It remains vague and mysterious unless he falls back on the analogy of mental life—unless he approaches biology from a psychological standpoint. This is forcibly brought out in Mr. E. S. Russell's recent work, *The Study of Living Things*. So far Russell is in full agreement with Ward.

APPENDIX

JAMES WARD ON SENSE AND THOUGHT

18th May, 1926.

DEAR DR. STOUT,

I have been reading with absorbing interest your masterly article on my husband's *Psychology* in the January number of the *Monist*. The more I have studied your article, the more I have felt (as I know you will have done in writing it) a depth of regret that my husband was no longer here to further explain his views, or defend himself, on certain points; or (what I think more likely to have happened) to have so developed some of his positions and so modified certain of his expressions that many of the apparent difficulties and inconsistencies to which you call attention would have disappeared. Not all, of course; for he would have been the last person to claim finality for any of his pioneering thoughts. He was always a severe critic of himself, and filled with almost distressing misgivings about everything that he committed finally to print. Besides, wonderfully preserved as his faculties were, and little as decay of them showed to people with whom he talked, he did, during the last year or two of his life, find "close thinking" very tiring; and he sadly confessed that he could not tackle any important new work, such as the Epistemology, which, as you know, he had for years been hoping to write, and for which he had a good deal of material scattered among his notebooks. Now, I cannot but think that if he had been able to write this Epistemology, many of the criticisms which you and others—Dr. Dawes Hicks in particular—have passed upon sections of the *Principles of Psychology* would have been met. This is why I am venturing—most diffidently and humbly—to suggest what it appears to me might have been his line of defence. It is permissible to *surmise* where it is that he would have, as it were, "taken off" from his own springboard.

I am encouraged in this attempt by some sentences of yours in a letter to me after his death, and (I think) in one of the "Obituary Notices". You say you believed "that there was much more in his work than anyone had yet fathomed"; and again that "he may have laid his foundations better than even he himself fully realised".

Let me start by taking as my objective the following statements in your article:

Page 109 (*re* continuity of sense-knowledge and thought-knowledge). ". . . it seems to me that he does not and cannot

show such continuity without presupposing that something is thought of which does not immediately appear in sense-experience".

Page 110 (*re* other selves, or subjects, and the apprehension of them). "Thought is involved which transcends the immanence and immediacy of sense." ". . . the thought is inseparably blended with sense-presentation and embedded in it. None the less it cannot be accounted for by any differentiation . . . of an original presentation continuum . . . merely sensori-motor."

Page 114. "It is misleading to speak as Ward does of a continuous development from sense-knowledge to thought-knowledge. All knowledge and all development of knowledge involves both thought and sense in inseparable unity."

Again, a number of passages concerning self-consciousness which all lead up to the statements: "No attempt which starts from his (Ward's) assumptions can, I submit, be possibly successful," and (page 120) "When once we recognise that thought, however rudimentary, is indispensable to the being of anything which can properly be called an individual self or 'I', his argument seems to break down."

Among these passages I should single out on page 112 "So far as mental development can be regarded as continuous . . . sense and thought must from the outset inseparably interpenetrate, so as to vary concomitantly and develop *pari passu*."

To sum up: the gist of all your criticism is that knowledge = apprehension of Subject and Object as distinct *reals*, yet in relation, interacting, and leading on to the construction of objective and subjective universes, cannot be evolved from the primordial elements of experience merely by the continuous differentiation of the individual's sensori-motor continuum of presentations, *unless* more is given in those primordial elements to start with. And you show most convincingly that this is so. But what you do not, it seems to me, show is that in my husband's theory, *taken as a whole*, this necessary "*more*" cannot be found. I know that many passages in the *Principles* (those in particular which you quote) seem to justify your view. But there are other passages, also quoted by you, which point the other way—as in one or two cases you yourself allow. No doubt when my husband was, as it were, in full career on the scientific psychologist's course, bent on expounding the evolution of the individual's higher consciousness, or mind, from its simplest beginnings, much as a biologist would do the evolution of higher organisms from lower, he did now and again commit himself to statements which were inconsistent—so it seems to me—with his own ultimate foundations. But he never intended to depart from, or explain away,

his postulate that the simplest psychical unit—the very essence of being, or living, and the point of departure of all experience was a subject-object *fact* (I do not know how otherwise to express it); and (on this, above all, I lay stress) that in this fact was involved immediate experience of *change, as an ultimate experience;* one without which there can be no experience at all.

You mention yourself that he gives "*Change as ultimate*"; but you do not lay stress on the fact, or dwell upon its *deep* significance. For on page 114 you say that, "If Ward had started with a rudimentary time perception, what he had to say about its later stages would have retained its full value and have gained in clearness and cogency". But what *is* "experience" (awareness) "of change" as an ultimate psychical fact if it is not a "rudimentary time perception"? The crux of the whole matter seems to me to lie here. And in certain passages you verge on indicating that it does so.

My contention is that the solution of the main difficulties which you point out in the *Psychology* is to be found in my husband's doctrine of Time. He set great store by this doctrine. It was the one important point of agreement between him and Bergson; and one in which he had in a sense anticipated Bergson. For he had developed the theory in manuscript long before he published it: and had lent the MS. to various people. He wondered at first if Bergson had seen it, but when he met Bergson and discussed the subject with him, he found Bergson had arrived at a similar view quite independently.

Let me now try to state, as best I may, what I think my husband's doctrine amounts to, and what I believe he would have made clear had he written the Epistemology.

This primary "inarticulate awareness of time-transience, of no more and not yet" (as you express it) is of course a *condition* of the later perception of time, and of the distinction of past, present, and future, as represented by the discrete symbols, *a*, *b*, *c* (in which, of course, *continuity* is lost), but is not to be confounded with it. Experience of change *is* an experience of transition, and it is the ultimate pyschical *fact*, the unit of consciousness. That is to say, as far as our life is concerned, *all being is a becoming.* Changelessness = non-existence. To be is to be aware of change. And this awareness involves the subject-object relationship as an ultimate fact in experience.

This holds of the very lowest ranks of being, as well as of the highest—of the beginnings of life in the embryo, in the amœba, as well as of every sensation, thought, and action of the most highly evolved individual. In this primordial "awareness of change", what is later perceived or conceived as time, present,

past, and future is in a sense transcended; or, rather, I should express it, what we come later to distinguish as "*present*" is transcended. A pure momentary or mere *present* existence (if such a thing could be conceived) would be nothing from which any "experience" could be built up; any more than space could be constructed out of *pure* mathematical points. The *pure* point cannot be a *constituent* of space.

In this ultimate psychical unit, "awareness of change", we find that germ of thought which is necessary to the psychological evolution of the individual, to the gradual reflective discrimination of subject and object, and to the final building up of the objective and subjective universes as in knowledge.

In what is slipping away out of the focus of attention we get from the first that "otherness" which is the basis of objectivity—of the *not self;* and in the feeling—the liking and aversion—which is of the very essence of the subject and the condition of all its activity we get the self stretching after, or revolting from, that which is passing away, and which is therefore distinguished from itself as something "other".

Since attention—the activity of the subject—varies the content of consciousness—the field of presentation—it must be directed to something not fully there, to an object in birth or vanishing. This is so whether the attention is voluntary or involuntary = forced. One discerns this more clearly perhaps in regard to the object coming into focus, and which the *feeling*—or activity of the subject (*for to* FEEL *is to* WILL *towards or from*)—draws into the focus of attention, or repels from it. In such an attitude there is awareness of something other than the feeling, acting subject, having an existence before as well as after it is focused in consciousness, or *fully* presented. Subjective activity, action being of the very essence of the subject and involved in feeling, is only possible, only conceivable, if what is passing away in experience, and what is coming in, is grasped in one by the subject. The experiencing subject is objectifying his own changing presentations all the time.

It is difficult to express this without using what may seem to be not only question-begging terms, but terms which imply the memory and imagination which are finally developed from this primary unit of psychical being, but which are not there to start with, any more than perception of time proper is there. For in this experience of transition the *present*, as I have said above, is transcended, that is to say, there is no *pure present* in experience.

Such a doctrine as the above, it may be objected, is not psychology but metaphysics. But *all* sciences are rooted in the meta-

physical; and psychology of course most intimately and primarily so.

It seems to me further that such a doctrine as this of the nature of the ultimate psychical unit which awareness of change involves is implied in the very conception of a continuum, be that continuum either of the subjective or objective universes as finally evolved in thought. A continuum cannot be a collection of psychical atoms—so to say—however closely they are supposed to hang together. They *interfuse;* they are elements in a "*becoming*" which only the above doctrine of the subject's immediate experience of change makes intelligible. This being so, to speak of the growth of experience from its lowest to its highest developments as being a gradual differentiation of a sensori-motor *continuum* of presentations is, in itself, to posit (as my husband does), as a necessary starting point, the psychical unit of "subject-object" related and conditioned in and by change.

Yours sincerely,

MARY WARD.

CRAIGARD,
ST. ANDREWS,
May 23rd, 1926.

DEAR MRS. WARD,

I have read your comment on my *Monist* article with the keenest interest. I am very glad that you have written it. I think also that you ought to publish it—with such changes, if any, as may be suggested by what I have to say in reply.

I do not approach your husband's work as an external critic, but rather as a disciple seeking and in a large measure finding in it a basis from which to develop his own. It is therefore natural that much of my criticism—so far as it is valid—is such as he might, on later reflection, have passed upon himself. This applies to the general treatment of the sense-thought question. On this point I have only to add that I do not rely merely or mainly on positive statements *pro* and *con*. I am more impressed by the *absence* of positive statements where, if I am right, and if Ward really agrees, it is very important that they should be forthcoming. I miss them in the account of the general nature of attention and conation, and also, broadly speaking, in the whole exposition of the course of mental development at least up to the stage in which trains of ideas emerge. It does not seem to me to be the reader's fault if he takes this to be concerned exclusively with the plasticity of the sensori-motor continuum. I have no doubt that your explanation

is correct; that "he was in full career on the scientific psychologist's course", and so tended to assimilate his treatment of the subject to that of the biologist tracing the evolution of organic life. I agree also that if this is a true account of his procedure, the defect which I find in it may well be referred to an oversight which he might have corrected without departing from his fundamental principles. None the less, to take this view is to admit that there *is* an oversight which cannot be regarded as unimportant. We have to admit that, for the time being, he was misled by biological analogies, as his predecessors were misled—far more seriously—by mechanical and chemical analogies.

What you say about the "primordial awareness of change" is extremely interesting and important. When I read your own exposition (pp. 125-6) I feel that it *almost* meets my difficulty. I must explain why I say "almost" instead of "quite". I am, of course, fully aware that according to your husband (and I quite agree) it is an essential condition of individual experience that it should be in incessant change. Further, this is implied in the doctrine of the presentation continuum and also in that of attention. Again, at every step there is retentiveness: the result of previous process is carried forward into succeeding process. But all this does not give me what I require. It does not of itself involve any *distinction* on the part of the subject between what is, what was, and what is to be. There is *in fact* a *now*, a *no more*, and a *not yet*, but the *now* need not be, even in the most rudimentary way, distinguished from the *no more* and the *not yet*. That this holds good for your husband's "primordial experience of change", as he conceived it in the *Principles*, is plain from his own clear and emphatic statements. Turn for instance to page 212 of the *Principles*. "It is true that experience is impossible without change and true also that the concept of change implies time; but it is not true that the experience of change involves the perception of time". Here it is essential to fix what is meant by *the perception of time*. But on this point he leaves no room for doubt. "In perceiving time what we perceive is just relations between changes." So far I can follow. I agree that at whatever stage the distinction (as opposed to the mere difference) of the present from its past and future arises, the distinction is between change present, change past, and change to come. I agree also that though each of these changes must include succession, yet we need not distinguish *within them* what precedes from what follows, or indeed be aware of any relation of before and after at all. The stumbling-block for me is your husband's very definite and explicit doctrine that even a rudimentary perception of time as a "relation between changes", far from being primitive, does not and cannot begin until mental

development has reached the advanced stage in which there are trains of free ideas. I can find no way of accounting for this position except by supposing that he had allowed himself to slip into the habit of regarding previous development at the perceptual level as merely sensory, *i.e.* as consisting in the differentiation of a sensori-motor continuum. It seems to me that if he had been guided by the view of perceptual process as involving the inseparable unity of thought and sense, he would have referred the beginning of time-perception to a much earlier stage, even if he had not made it quite primitive. In the passage on page 212 the only view which he takes into account as a possible alternative to his own is one which "would talk of 'time sensation', or suppose that the experience of change is *ipso facto* an immediate experience of time transience". Rightly rejecting this position, he straightaway takes for granted that time perception can begin only with free ideas. Later on when he comes expressly to deal with thought he recognises that it is present in a rudimentary form even in the most primitive experience.[1] "The difficulty", he says, "in distinguishing between sense and understanding we may now fairly attribute to the fact that there is no sharp distinction—unless, indeed, we go to the length of maintaining that in sense we are purely passive and in 'understanding' purely active" (*Principles*, p. 294). This gives me all that I require. It even goes further than I am prepared without hesitation to follow. For it implies that where there is no vestige of thought there can be nothing in the nature of activity. I should like to say this too. But I feel bound to concede to Bradley that there might be a primitive experience in which conation, if we may still use the word, would take the form of an absolutely blind restlessness issuing in movements, etc., which tend to continue until it is allayed. In such *quasi*-conation, the individual, if we may still call him an individual, would have no sort of clue to what he wants. He can therefore be said to want or seek it only from the point of view of an outsider, as someone may be said to "want" a good thrashing, or as water may be said to "seek" its own level. If we start from this as the most primitive form of conation, the transition to higher stages which involve thought must be, in principle, discontinuous. But I hesitate to affirm dogmatically that such discontinuity would be impossible. All that I can say and do say is that the evidence does not seem to demand it and that the burden of proof rests with those who assert it.

I have referred to this problematic conception of a conation, which, being purely sensory, must therefore be entirely blind, in

[1] The relevant passages are, however, absent in both editions of the *Britannica* article. They occur first in the *Principles*.

order to note that your husband's own position, in such passages as that on pages 294-295, takes no account of it, and by implication excludes it. His view is rather that wherever there is conation at all there is some prenotion, however vague, of what is wanted —a prenotion which serves in some degree as a guiding clue. To me this seems sound doctrine; but I must repeat that if it is sound there are points in his previous exposition of mental development which seriously require revision—more especially the account of time-perception. Consider, for instance, what he himself gives as the most primitive form of conation, " that in which the only clue to what we seek is 'anything, anything, only not this' ". Where the painful situation is at all intense and prolonged, there must, I should say, be for the animal itself an emphatic contrast between the actually or "immediately" experienced present and change in it which is thought of, but *ex hypothesi* is not yet *actually* experienced. I cannot admit that in such cases the distinction between the "now" and "not yet" is transcended. That the "not yet" is very vaguely defined, does not seem in this respect to make an essential difference. In other situations, *e.g.* when the state of struggling discomfort suddenly issues in marked relief, or comparative relief, there will be a similar contrast between the *now* and the *no more*. All depends on the predominant trend of interest: and since this, as your husband somewhere says, is, at first, mainly "upstream", the distinction between present and future will have a certain priority over that between present and past.

I said that in reading your own statement of what your husband's doctrine amounts to, I almost felt that it fully satisfied my requirements. Why "almost" and not "quite"? My first impulse was to put my own interpretation on what you say. So interpreted, I could welcome it as a very good statement of what I myself take to be true and vitally important. But I was still troubled by a misgiving due to your previous assertion that in the more primitive experience, previous to free ideas, "what is later perceived or conceived as time, present, past, and future is transcended," where by "transcended" you clearly mean that the *distinction* is not apprehended. You mean, I presume, that though present, past, and future enter into the constitution of experienced change, they are not discerned within it. Now, I fully admit that there is such change-experience in all stages of mental development. But I cannot admit that there is nothing else, before the time-perception becomes articulated in trains of ideas. If, then, your account of primitive conation and attention as essentially involving the *now*, *no more*, and *not yet* is taken as compatible with the view that they are always transcended, there must be

an important disagreement between us. On further examination I find that your statements are capable of being interpreted, though not very naturally, as applying, in the first instance, to conation conceived as mere blind restlessness. This would come first and that "otherness which is the basis of objectivity" would be gradually developed. Now I admit that as a matter of chronological order this is possible. But the supposed transition from mere sense to thought would be in principle discontinuous. Further, it must, I urge, take place, so far as time distinctions are concerned, at a far earlier stage than that to which Dr. Ward refers time-perception.

Let me now add that I believe that if your husband had lived to write his epistemology he would have grappled with these difficulties and that in all likelihood he would have found a satisfactory way of meeting them.

I was impressed by a remark he made to me the last time I saw him. I had been speaking about thought and sense, in the same way as in my *Monist* article. Unfortunately I cannot remember the words he used in reply: but they were certainly to this effect. "That reminds me of a difficulty which I have often [perhaps he said "always"] felt in dealing with time. In time-perception what is given is a number of simultaneous images which are all equally present. How do we pass from this to a past and future which are not present?" He had already very definitely raised the same question in the *Principles* (pp. 213-214). So far there was nothing new in what he said. What seemed to me to be important was his readiness to recognise the relevancy of the general problem of thought and sense. Taking this together with the later passages of the *Principles* in which he clearly asserts that thought "in the wide sense" is primitive, and bearing in mind that these passages are absent both from the earlier and later editions of the *Britannica* article, we may fairly infer that his mind was moving in a direction which would have led him to meet my criticism either in my way or in a different way of his own. On the other hand, the way in which he deals in the *Principles* with the special problem of time-perception, indicates that he was, more or less, groping. For he does not in this context make any reference to thought. He does not say, for instance, that though we think simultaneously of past, present, and future, it by no means follows that we must think of them as simultaneous. On the contrary, he seems to suppose that the difficulty is met by a reference to the reproduced residua of movements of attention which only raises the same question in a new form. For such residua belong to present experience in the same way as the images. Of themselves they only add to the complexity of the image as a character due to previous attention.

What I take to be right in all this is that the solution is to be found in the fundamental nature of attention as involving *thought*.

Yours sincerely,

G. F. STOUT.

To the Editor of MIND.

July 7, 1926.

Without attempting to reply at all generally to Dr. Stout's interesting and searching criticism of some of the arguments contained in my letter—a letter addressed to him originally quite personally and without any idea of its being printed in MIND—may I be permitted to insert the following note after his letter, as it may serve to make clearer certain points of the discussion?

First: in regard to the unsatisfactoriness that Dr. Stout finds in my husband's account of time-perception as a "relation between changes"; and the "breach of continuity" which he thinks even my interpretation involves. I cannot see that there is this breach; because what later appears as "present" in the relationing of changes is only relatively so. Since change is ultimate in experience this "present" contains the germ of the "no-longer" and "not-yet"; and this gradually and continuously expands into the larger, more definite changes finally distinguished as past, present, and to-come. The whole perplexity here seems to me to arise from the difficulty we naturally have at our present psychical level not only of intuiting the primordial in experience, but of finding terms to express it. We can scarcely think or speak of the primitive without employing the perceptions, the clear distinctions, of *this* and *that* which finally emerge. We cannot grasp the psychically infinitesimal. We make a leap from what we must postulate as the primary unit of consciousness—the starting-point of experience—where there has been no leap but only a gradual extension of its immediate subject-object content, conditioned by continuous change. In using the phrase "the present is *transcended*" in trying to express the fact that there is no *pure* present, I see the term "transcended" is misleading.

Secondly: as regards primitive activity and its first form being "blind restlessness". Fully agreeing that "where there is no vestige of thought there can be nothing in the way of activity" I should still urge that this "vestige" is to be found in what is called the individual's "blind restlessness". It is only *comparatively* "blind". (Here again, I think, the difficulty is to intuit and express the primordial.) The individual *wills-away* from what he is experiencing and in so doing, objectifies, in however elementary

a degree, his unpleasant experience. He is a subject with an object, which object he dislikes. What he seeks may not be a *definite* "*something else*"; but it is a *not-this*. And since his experience is continuously changing there must be in it the presentation of *more* and *less* discomfort or *dis*-ease. These vaguest of objects are those he shuns and seeks.

MARY WARD.

VI

THE COMMON-SENSE CONCEPTION OF A MATERIAL THING

WE have to inquire what constitutes a material thing, such as a stone, a tree, or a billiard ball, as it is apprehended by the ordinary consciousness. For purposes of exposition it will be convenient to deal first with things in their static aspect, and afterwards to consider them as subject to change. However true it may be that, as a matter of fact, all things are in perpetual flux, it is undeniable that to the ordinary consciousness most things appear to remain precisely in the same condition and position for long periods of time. For instance, I find my writing-table this morning to all appearance exactly as I left it last night, and I presume that it has persisted unaltered in the interval. Considered in this static aspect, we may offer the following sketch of the essential constituents of the ordinary conception of a material thing.

To begin with, it is clear that a material thing has duration in time and position in space. Of these two characters spatial position is the more distinctive. For existences which are not material have temporal duration. Next we ask how the space occupied by a material thing is filled. What are its contents? We may give a partial answer to this question by saying the place occupied by a body is filled by a complex of sensible qualities. But not all sensible qualities have, in the strict sense, a position in space. Sounds and smells are not spatially localised as tangible and visible qualities are. We do, indeed, speak of localising a sound; but what we mean is that we fix the position of its source, determine its place of origin. We do not mean that the sound itself

occupies this place. We say that a sound comes from a bell, not that it is in the bell, and we express by this such facts as that the sound is heard when the bell is struck and not otherwise, and that it becomes fainter as we recede from the bell and intenser as we approach it. The position of the bell itself is the position of its visible and tangible qualities. All colour is spread out in space of two dimensions, and every coloured surface has a definite position relatively to other coloured surfaces. The same is true of tangible qualities, such as roughness and smoothness, hardness and softness, hotness and coldness. But the same place cannot be simultaneously occupied by different colours, and it cannot at the same time be both hot and cold, both hard and soft, both rough and smooth. These are mutually exclusive, because they are specific variations in the same respect of the same generic quality. On the other hand, specific variations of different generic qualities, or of the same in different respects, can occupy the same place. A body may be hot, hard, and smooth in the same place. In particular, visible and tangible qualities are capable of having an identical position in space, and, as a rule, they are actually apprehended as spatially coincident and co-extensive on the bounding surfaces of material things. The exceptions are confined to instances, such as that of the air, in which a thing is tangible but not visible. The inverse exception does not occur; what is visible but intangible is regarded as a phantom, not as a material thing at all. We may then affirm in general that a material thing is a complex of sensible qualities, and that within this complex there is a central core constituted by visible and tangible qualities which have spatial extension and position, and are spatially coincident and co-extensive. Other sensible qualities are more loosely attached to this central core. They are attached to it in so far as their appearances, disappearances, and variations are connected in definite ways with change in it, and in its spatial relations.

Up to this point we have considered only sensible qualities and their interconnexion, and our results harmonise with Mill's famous definition of a material thing as

a group of permanent possibilities of sensation. But our next step brings us into conflict with Mill. Only the bounding surfaces of bodies are visible and tangible. But these bounding surfaces have something between them, and this something, by its nature, is invisible and intangible. We may indeed be said to perceive it by means of sight and touch. But it is not in itself a visual or tactual or any other kind of sense-presentation.

Solidity in the strict sense is rather a permanent impossibility than a permanent possibility of sensation. It is true that it involves possibilities of sensation, but these possibilities *depend* on it; they do not of themselves constitute it. At any rate, this is the unsophisticated view of common sense. I have, let us say, a billiard ball before me. I can see and feel the surface, but not what lies beneath. But this surface is only the outer surface; there are an indefinite number of inner surfaces which it hides from me. I can suppose the billiard ball divided into an indefinite number of concentric layers, and I can suppose these concentric layers to be peeled off successively like the coats of an onion. In the process an indefinite number of visible tangible surfaces would be disclosed. Again, I can suppose the billiard ball to be sliced across in an infinite variety of ways, and each section would disclose two surfaces. Thus the solidity of the billiard ball involves a very complex system of permanent possibilities of sensations. None the less, the solidity itself remains a permanent impossibility of sensation. For no combination of surfaces can constitute solid thickness; the solid thickness is always apprehended as lying between them; they cannot constitute it just because they have no solid thickness themselves, and, if they had, would cease to be mere surfaces. The surface is in space of three dimensions what the line is in space of two dimensions, merely a boundary. The line formed by the meeting of two coloured surfaces is no part of either of them. Similarly the surfaces disclosed by slicing an apple form no part of the solid content of either half of the apple. The next item which seems essential to the ordinary conception of matter is impenetrability—the mutual exclusiveness of solids in

space. Each occupies its own place, and no two can simultaneously occupy identically the same place. This characteristic of matter is most important for the conception of mechanical causation.

We have considered the material thing as an impenetrable solid and as a complex of sensible qualities. We have now to add that it is also a complex of powers and susceptibilities, or in Locke's language, of powers *active and passive*. "Fire has a power to melt gold, and gold has a power to be melted. The sun has a power to blanch wax, and wax has a power to be blanched by the sun."[1] A material thing has powers active and passive—powers corresponding to all the changes which it is capable of undergoing or producing. There is here an explicit reference to change and causation which points beyond the static point of view, but does not, I think, actually carry us beyond it. For reference is not to actual change and causation but only to their possibility. Arsenic is poisonous even though it poisons nobody, and tea-cups are fragile even though they remain unbroken. A material thing has a power or susceptibility corresponding to every change which it is capable of undergoing or producing under varying circumstances. It thus possesses an infinite number of powers—active and passive powers—which never have been and never will be actualised. Such attributes attach to the material thing because of their connexion with its other characters, its position in space, sensible qualities, solidity, and impenetrability. The changes which the material thing is capable of undergoing are changes of position, of sensible quality, of the spatial relations of its parts at the bounding surfaces, or within the solid content and the like. Changes in other things are referred to it as their source, because they arise in connexion with its own changes of position, sensible quality, etc., or with the varying spatial relations of other things relatively to it, or some such conditions. Here the question may be raised whether some of the other attributes of matter which we have enumerated are not in reality mere powers. "Sensible qualities," says Locke, "what are they but the

[1] *Essay*, bk. ii. ch. xxi. § 1.

powers of different bodies in relation to our perception?"[1] Now an ordinary educated person who has some acquaintance with popular philosophy or science would perhaps be ready to acquiesce in this view, as far as regards colour, sound, smell, and taste. But he would be inclined to draw the line at touch. As a matter of fact, he would be quite illogical in doing so, for touch sensations are just as much effects produced in us by external things as visual sensations. In any case the whole question is for common sense merely speculative. In ordinary practical life we attribute to material things the sensible qualities themselves, not the mere power of producing them in something else. The whiteness of the sheet of paper before me actually belongs to the paper: it is spread out over its surface; it is not spread out over the surface of my brain or my retina, or my soul, or my consciousness. This is the natural view of common sense, and I cannot help adding that common sense seems to me to be in the right. Doubtless there is a problem here, but you cannot solve it by saying that colour is a state of the percipient mind or organism and not of the thing seen. I have already said enough to show that solid occupation of space in three dimensions is not a power of producing sensations in us, and it seems evident that it cannot be reduced to a mere power of any kind. The case of impenetrability seems more doubtful. For impenetrability might be described as the power of a body to exclude other bodies from the space which it occupies itself. But this power may be regarded rather as a consequence of impenetrability than as identical with it. It involves a reference to possible movement or stress which is not necessary to the conception. No such reference is involved when we say that two different colours cannot simultaneously occupy the same place, and it need not be involved in the statement that two solid bodies cannot occupy the same place.

We have so far considered only the general conception of matter. In order to complete our inquiry we must also consider the characters which mark off one material thing from another. What constitutes the unity and distinctness

[1] *Essay*, bk. ii. ch. xxi. § 3.

which is implied in the use of the indefinite article when we speak of *a* material thing, or of the plural number when we speak of material *things*, or of the demonstrative pronoun when we speak of *this* or *that* material thing? Within wide limits this unity and distinctness is fluctuating, and varies as our own subjective interest varies. The cloud of dust which meets us on the highway is one thing, and we do not distinguish its portions or particles as separate things. But if a particle gets into our eye, it at once assumes individuality and independence. When we contemplate a tree from a distance, its parts may not assert themselves as separate things; but if we attempt to climb it, the protuberances of its trunk and each branch which offers foothold or handhold emerge from the whole as distinct portions of matter. In spite of this fluctuation, there are, none the less, relatively fixed and permanent unities corresponding to relatively fixed and permanent interests. We find a unity of this kind wherever a portion of matter is marked by a separate name. Thus chairs, tables, dogs, horses, trees, etc., are portions of matter permanently marked off from their environment, and, so to speak, ticketed as separate articles by the current use of language. In particular, those portions of matter which are the vehicles of conscious life appear to have a peculiar claim to independent individuality. Such are the living organisms of men and animals, and the material products of their activity as guided by intelligent purpose—horses, ploughs, steam engines, and the like. On the whole, we may affirm that the unity and distinctness of a material thing is bound up with the unity and distinctness of our interest in it, and that it is shifting or permanent according as our interest is shifting or permanent. But this is only one side of the question. In order that we may have an independent interest in a thing, the thing must by its own nature be capable of exciting this independent interest. The conditions necessary and sufficient for this may, of course, vary indefinitely in different cases; but there is at least one condition which, though by no means always sufficient, appears to be nearly always necessary to the unity and distinctness of a thing—I refer to that definite limitation in

space which is called shape. What is regarded as a single thing must, as a rule, have bounding surfaces which are sensibly distinguishable from empty space or from the bounding surfaces of other things. Of course, what I here call empty space is really filled with air; but as air is usually invisible, and as its tangible quality usually escapes attention, space which is only filled with air is generally regarded by common sense as if it were empty. Any portion of matter which is wholly or partially separated from other portions by this virtually empty space may be apprehended as a distinct thing. One branch of a tree is separated in this way from other branches, though it is spatially continuous with them in so far as they all spring from the trunk. Thus we may either regard the whole tree as one thing, or we may distinguish each branch as a separate thing. Portions of matter which are continuous with each other in space may be distinguished by difference in the sensible quality of their bounding surfaces. Where both means of distinction fail, we may introduce them by a mental artifice. In what appears as a uniform sheet of white paper there is nothing to prompt me to single out one portion from another. If I attempt to do so, I shall find myself looking for slight differences in the texture or shading of the different parts, and if I fail I must have recourse to the artifice of mentally introducing differences which are not actually present. For instance, I imagine black lines drawn on the paper; or perhaps I represent a bit of the paper as torn off from the rest. Thus it seems that in all cases, in order to apprehend a portion of matter as a distinct thing, I must either perceive or imagine it as separated from other things by intervening empty space, or at least as discriminated from surrounding matter by difference in the sensible quality of its bounding surfaces.

I have now, I think, given a tolerably complete account of common-sense conception of a material thing in its static aspect. Before taking up the question of change, it will be well to say something concerning an attribute of material existence which belongs to it equally whether we regard it as undergoing alteration or persisting unaltered—I refer

to its independence of the processes by which it is perceived or ideally represented. This is a point on which Kant lays great stress, and he simply identifies it with the objectivity of matter. But he apparently fails to recognise that the objectivity which belongs to material things and process is only a special case of objectivity in general. Whatever we can in any way perceive or think has a being and nature of its own independently of the processes by which we cognise it. We do not create it, but only become aware of it in the process of cognition. The number two, the fact that $2 + 1 = 3$, the validity of a syllogism in Barbara, the necessity or the arbitrariness of the transitions in Hegel's *Logic*, a symphony of Beethoven, the moral law, all these are possible objects of our cognition, and all these, inasmuch as they are objects, possess a being and nature of their own, whether anyone is actually thinking of them or not. But their independent being and nature differs profoundly from that of material things, because it does not consist in independent persistence and change in time and space. $2 + 1$ was equal to 3 *before* anyone began to count, and this planet existed *before* the appearance of life on it. But the word "before" has a different meaning in the two cases. When I say that this planet existed before the appearance of life on it, I mean that it has had an actual history lasting through successive moments of time from some determinate date up to the moment at which I am now speaking, and that in each of these successive moments it has had a definite position in space. When I say that $2 + 1$ was equal to 3 before anyone began to count, I do not mean that this fact endured through successive moments in time, and had in each moment a definite position in space before it was discovered; I only mean that it has a being independent of its discovery, not affected by such occurrences as man beginning or ceasing to count. To put the case in another way; when I leave my house I regard the house as still existing, though I no longer perceive or think of it: I regard it as continuing to exist in time just as I myself and my conscious experience continue to exist in time, and just as the flow of my conscious existence is divisible into successive moments

of duration, so I regard the continued existence of the house as divisible into successive moments, so that each moment of its history synchronises with a moment in my history. It is true that the flow of my conscious life has, strictly speaking, no position in space such as the house possesses. But my body has always a determinate position in space, and my body is continually presented to sight and touch. I regard other things which I neither perceive or think of as maintaining or changing their position in space just as my body, which is continuously presented, maintains or changes its position in space. I emphasise this point because it seems to have an important bearing on Kantian criticism. Kant would investigate the conditions of the possibility of experience. He assumes that there can be no experience without an object, and this assumption is no doubt entirely justified. He also teaches that an object is such only so far as it has a being and nature independent of the actual occurrence of the subjective process by which it is cognised. So far we can follow him. But he also makes another tacit assumption which I cannot admit as legitimate. He seems to take it for granted that the independence necessary to constitute any object whatever must be of the same kind as that which is characteristic of material things and processes—independent persistence and change through successive moments of time. This assumption he in no way attempts to justify, and it seems quite untenable. It is abstractly conceivable that an experience might exist, concerned exclusively, let us say, with sounds. The sounds might be compared as regards their pitch, intensity, and timbre, and arranged in series according to their resemblances or differences; their musical combination might be apprehended and enjoyed; all this, and the like of this, might take place, without ever a thought of the sounds as enduring, changing, and succeeding each other, apart from their actual presence to consciousness. When we speak of the possibility of experience, we ought to explain very carefully what kind of experience we mean.

We have next to deal with change in material things. In the first place it is necessary to distinguish between change

in the thing itself and change in its appearance to the percipient. To the thing itself we ascribe those changes and those only which form part of its independent existence—of the existence which belongs to it whether or not it is actually perceived or thought of. But there are innumerable variations in the appearance of material objects which are not regarded as changes in the object itself; and all these variations have the common characteristic of being recognisably due to the varying conditions of the process of perception. If I close my eyes, the things around me disappear from sight. But I do not for that reason regard either the things or their visible qualities as having ceased to exist, or as having undergone any kind of alteration. Again, as I shift the position of my eyes, head, and body, the things around present constantly varying visible appearances corresponding to the constantly varying size, shape, and position of the images which they produce on my retina. But just so far as they arise in connexion with movements of my eyes, head, and body, these variations are not regarded as changes in the material objects themselves. The things themselves are unaltered; it is only the point of view of the percipient which changes. When similar variations appear to take place independently of our own active movement or changing position they are regarded as changes in the things seen; the things are apprehended as varying in their position in space or in their shape and size. So when we look at a thing through yellow glasses we do not suppose that the thing itself becomes yellow. But if the same alteration in our experience took place without the use of the yellow glasses, or some equivalent condition, we should say that the thing itself had changed its colour. The same holds good for touch and the other senses as well as for sight. We do not regard things as having lost their odour because we have a cold in the head. If I move my finger-tip along the edge of the table, I do not regard the variations in my tactual experience as changes in the tangible quality of the table. The succession is in me, not in it. If, on the contrary, similar variations occur while my finger is unmoved, I am aware of the table itself as moving or otherwise

undergoing alteration. It is to be noted that only variations due to *free* movement are thus regarded as attaching not to the thing but to its appearance. Movement against resistance always involves alteration in the position or shape of the thing which resists. The reason is plain: what lies within the sphere of our own initiative is the power to move or to attempt to move in a certain direction. It does not depend on us what kind or degree of resistance we shall encounter, whence or where we shall meet it, or whether we shall meet it at all. Hence the yielding of a resistant surface to our efforts when we push, pull, or compress it is regarded as a change in the material object itself, not merely its appearance to us.

A word may here be added on Kant's treatment of this question. He also distinguishes between change in a material thing and change in its appearance to us. But he seems to me to draw the line between the two very incorrectly. He says that change in the thing itself is apprehended as such, because it is regarded as following on some other change according to a fixed rule, whereas mere variation in its subjective appearance is not so determined. But this seems quite untenable. The changes in appearance are just as much subject to rule as the changes in the thing itself. Take his own example. I survey a house, and in doing so my eyes travel from the top to the bottom, and again from the bottom to the top. The corresponding sequence of varying visual presentations is not regarded as change in the house. The roof is not transformed into the door. The change merely consists in looking at the door after looking at the roof. So far well and good. But can it be truly said that the sequence of visual presentations has no fixed order? On the contrary, it has just as much a fixed order as in the case which Kant contrasts with it, that of a ship being carried down-stream by the current. In both cases the order is conditional. Given the starting-point and direction of my ocular movements, the order of my visual impressions is predetermined according to a rule. Given that the ship is merely moved by the current, there is like fixity of order. But as my ocular movement may vary, so

the ship may steam or sail against the current. The difference lies in the nature of the condition in the two cases. In the case of the house the conditions belong to the perceptive process, in the case of the ship they do not.

In what follows we shall consider change in the thing itself as distinguished from change in its mode of appearance. We have three questions to consider. (1) What is the nexus between a thing and its changes which enables us to say that it is a change in this thing rather than in that? (2) At what point does change become transformation so that in undergoing the change the thing loses its identity? (3) When a thing changes, what is it that really undergoes the change? As for the first question, it is evident that all cognition of change involves the presentation or representation of a relatively new content of experience. When we ascribe the change to a material thing, we mean that the new content is a new state of that thing which previously existed in a different state. Now the question is this. In what relation must the new content be thought of as standing to the thing, in order to be recognised as a state of that thing displacing a previous state? We answer: (*a*) The new content must be a specific determination of some general property or attribute of the thing, and before its emergence the thing must have possessed some other specific determination of the same general property or attribute. Every change in the thing is a change in some respect, a change in position, or in shape, or in size, or in colour, or in texture, or in temperature, or in solid content, or in powers active or passive, or the like. Each successive state is a specification of some more general character, and for that very reason they are incapable of belonging to the thing simultaneously. They are mutually exclusive alternatives which can only qualify the thing successively if at all. (*b*) These mutually exclusive alternatives must displace each other continuously in time. The commencement of the one must either coincide with the cessation of the other, or if there is an interval of time between them, this interval must be filled up by continuous transitions from one alternative to another. Let us take as an example the movement of a billiard ball.

To the ball belongs the attribute of having position in space, and at any instant this position must be completely determined. Further, it cannot occupy two positions at the same time, though it does so at different times. In order to occupy different places at different times, the varying positions must succeed each other continuously so that in passing from one it *ipso facto* enters another. (*c*) Finally we have to add that each successive determination must bear to the total complex of attributes constituting the thing, a relation analogous to that of the precedent state which it displaces. When the billiard ball moves, its new place, like its old place, is the place of its visible-tangible qualities, and of its solid content, and determines in like manner its other sensible qualities and its powers active and passive. Similarly when a leaf turns yellow, the relation of its colour and shape is maintained as it was when the leaf was green. Of course, what thus persists is only the general form of combination characteristic of a material thing. This general form receives various specific determinations as the general attributes vary either separately or together.

Our next question concerns the limits within which a thing is regarded as maintaining its individual identity in spite of the changes which it undergoes. The answer is that so long as the general conditions we have laid down are observed, there is no fixed limit except one, and even this is not absolutely fixed. A thing ceases to be regarded as the same when it suffers disruption—when it is broken up into parts separate in space, so that each is thenceforth capable of having its independent history. When this happens, the thing no longer exists but only its fragments. Apart from this restriction, a material thing may always be regarded as maintaining its identity through change. I say that there is always a possibility of so regarding it. Whether in any given case a change is or is not treated as involving loss of identity depends upon subjective interest. So long and as far as the unity and continuity of our interest in the thing is unbroken it remains for us the same thing. "Imperial Caesar, dead and turned to clay, may stop a hole to keep the wind away." The lump of clay is identified with the body

of Imperial Caesar, simply because the poet is interested in the continuity of the transition by which the one became the other. Change the point of view and the identification will not be made. You say that Caesar is no more, and that what is left is only a clod of earth. The embryologist, interested in continuity of development, may regard the egg as a stage in the continuous existence of the chicken. But for most people the egg is one thing, and the chicken another. The chicken hops about and feeds on corn, and the egg does nothing of the kind. Both are edible, but they are eaten in very different ways and have very different tastes. The knife which had its blade and handle several times replaced remained the same knife from the point of view of its possessor. It had a continuous history, and throughout its history the personal interest taken in it by its possessor was uninterrupted. Hence it is for him one thing throughout its changes. On the other hand, the outsider who is without this personal interest will be likely to say that there have been several different knives, not one and the same knife.

Even the disruption of a thing into separate fragments does not unconditionally involve loss of individual identity. It only does so in so far as the fragments are regarded as having thenceforth an independent history with discontinuity of interest. But this is not so at the moment of the disruption. When a valuable china tea-cup falls and is broken into shivers, we naturally, for the moment, regard the collection of fragments as being the piece of china itself, as being the same thing in fragments. In the future we adopt the same attitude whenever our minds revert to the occurrence. Similarly, if we regard the fragments as capable of being put together again, we continue to think of them as preserving their individual identity with the unbroken cup. On the other hand, if we think of them as thrown on the dust-heap, so that each for the future is to have its own history independent of the rest, then from this point of view the cup is no more, and only fragments of pottery remain.

In more primitive stages of human development, solu-

tion of spatial continuity is less capable of interrupting continuity of interest and consequent identification. Primitive culture, as represented in savage races, regards the severed fragment of a thing as still capable of sympathetic communion with the whole from which it has been detached. On this view it is possible to make a man ill or cause his death by operating on the cuttings of his hair or the parings of his nails. Hence there is a very important difference between the primitive view of individual identity and our own—a difference which has an important bearing on the development of the concept of a thing.

The third question we raised was: When a material thing changes, what is it that really undergoes the change? The nature of the problem requires some explanation. It arises out of Kant's statement that only the unchanging changes. Kant said that successive states do not change, but only succeed each other. Each, in any moment, is just what it is, and nothing else. Hence the true subject of change must be the thing so far as it remains unchanged. Now, I cannot see that this statement is in reality any less nonsensical than it appears to be at the first blush. So far as the thing is unaltered, it is unaltered, and no more can be said. On the other hand, the successive states do change. This is obviously true if we consider any finite period in time, however small; for during this period the state includes changes. If, on the contrary, we consider the state as it is in a bare instant of time without duration, it is true that there is no change, but it is equally true that in that instant there is not, in any proper sense, a *state* of the thing. There is only a boundary between the immediately preceding and immediately succeeding state. There is only the transition from the one to another. Just as the surface is only the meeting of two solids, so the instant of time is only the meeting of preceding and succeeding portions of duration. Like the surface, it is a boundary, possessing a positive character, but still it is only a boundary. This is true, whether we apply it to the case of a state which is changing or to one which remains unchanged. Of course all change implies some qualitative continuity. It implies a generic

content which receives varying specific determinations. But the change is not constituted by the generic content, nor yet by its specific determinations. The change is constituted by the continuous transition of one specific determination into another; the coincident emergence of the one and cessation of the other.

It will, however, be urged that we have not touched the essential point of Kant's criticism. We can only cognise change in a thing if we are able to recognise the thing as the same in spite of its differences in successive moments of time, and we attribute change to this something which is recognisably the same throughout its varying states. This seems beyond dispute. But we have still to inquire what we mean by the sameness of the thing. Do we mean material or individual identity? Do we mean merely likeness of quality, or do we mean that continuous connexion of successive phases which makes possible unity and continuity of interest? Clearly it is the latter kind of identity we have in mind. In our conception of a thing we include all its actual changes past and future, and all the possible changes which it would undergo under varying conditions.

We comprehend all these changes in our thoughts of the thing so far as they do not interrupt the continuity of our interest in it. We mean to include them even if we do not know what they are. It is to the thing conceived in this manner that change is ascribed as a predicate.

VII

THINGS AND SENSATIONS

§ 1. *The Problem, negatively determined.*—The philosopher cannot legitimately raise the question, Does matter exist? He can only start like other people on the basis of ordinary experience; but the existence of a material world is a constant and essential presupposition of all ordinary thought and conduct. Thus, philosophical inquiry can relate only to the nature of matter and of our knowledge of it, not to its existence. We may not ask, Is there an external world? but we may ask, *What* is the external world, and how do we know it? Yet, even in this direction, our inquiry is limited by definite conditions. Philosophical theory concerning the nature of matter is bound to include and explain those characteristics of matter which are essentially presupposed in the ordinary procedure of common sense and physical science.

Philosophical problems of this kind must be such as arise inevitably out of the organised body of pre-philosophical knowledge. In the present paper I propose to deal with such a problem, that of the connexion of material things with what we call their appearance to the senses.

§ 2. *The Problem, positively stated.*—If we cross-examine common sense and science on this topic, we obtain two results which, taken as they stand, are in apparent conflict with each other. From one point of view, things and their sensible appearances coalesce in indivisible unity. From another point of view, the sensible appearances have an existence and history separate from the existence and history of the things. The problem is to harmonise these apparently conflicting views while doing justice to both.

§ 3. *Unity of Thing and sensible Appearance.*—In ordinary perception, we do not, in general, make any distinction between the thing perceived and its sensible appearance. When we see a table, we seem to have cognisance only of the table itself; we are not also aware of something else which we call the visual presentation of the table. It is only through critical reflection that we are enabled to distinguish the visual presentation from the table itself. And even when we do recognise the distinction, we are still unable to separate mentally thing and sensible appearance so as to set them side by side as mutually exclusive entities. They still continue to be blended in inseparable unity, and the distinction between them is only a distinction within this unity.

If we turn from actual perception to ideal representation, we obtain the same result. Our ideas and concepts of material things and processes owe all their specific content to sense-presentations. Their nature is determined for thought only in terms of qualities and relations belonging to visual, tactual, and other sensations. The extension of matter, for example, has no meaning for us apart from our experience of the extensiveness of visual and tactual sensations. Similarly the motion of material things has no meaning apart from our experience of the displacement of visual sensations within the general field of visual sensation, or of tactual sensations within the general field of tactual sensation.

We may then conclude that, both for perception and ideal representation, matter and its sensible appearance form an inseparable unity. We cannot think away what belongs to the sensible appearance without thinking away matter itself.

§ 4. *Separate Existence of Things and their sensible Appearance.*—None the less, however intimate the unity of matter and sensible appearance, the existence of the one is not numerically identical with the existence of the other. On the contrary, we are compelled by overwhelming evidence to recognise that, in this respect, they are relatively separate and independent. The visual appearance of a thing may vary indefinitely in size, shape, and colour without any

corresponding variation in the thing itself. Similarly, when we see a thing moving, the displacement of the visual presentation within the field of view is more or less rapid according to the varying distance of the thing seen. But the thing seen does not, on that account, move more or less rapidly. Now if *X* exhibits changes and variations which are not shared by *Y*, *X* and *Y* must be distinct existences. And this argument holds good for all other senses as well as for sight. Physiology here supplies us with a general formula. The variable nature of sense-experience corresponds immediately not with the constitution and changes of the material world in general, but only with the constitution and changes of the small fragment of matter which we call a nervous system. Alter this, let us say, by the use of drugs, and the sensible appearance of perceived things may be profoundly modified without any corresponding alteration in the things themselves.

We reach the same result by considering the connexion of sensations with mental images. Plainly the existence of mental images is distinct from the existence of bodily things. Their waxing and waning in distinctness, their changes of quality, their coming and going, etc., are occurrences that cannot be identified with events happening in the external world. But sensations are continuous in their existence and history with images. They are continuously connected with them through such intermediate links as after-images and primary memory-images, and the varying grades of hallucination. Hence, sensations must also have an existence distinct from that of external objects.

The same conclusion is forced upon us by the private and incommunicable nature of sensations. When *A* and *B* perceive one and the same material thing, the sensations experienced by *A*, however much they may resemble *B*'s sensations, have, none the less, a separate existence from *B*'s sensations. There is only one perceived thing; but its sensible appearance is not correspondingly single; hence, the sensible appearance presented to *A* and that presented to *B* must not only be numerically distinct from each other, but also from the thing perceived.

For these reasons we seem bound to accept the position that the existence of sensible appearance is distinct from the existence of the things which present these appearances. But, on the other hand, we seem equally bound to recognise that the sensible appearance as such is fused in inseparable unity with the thing. Our problem is to reconcile these two views. And there seems only one course to follow. We must inquire into the nature of the connexion between sensation and thing, on account of which the sensation is called the sensible appearance of the thing—the appearance of the thing to the senses. What does the word "appearance" mean in this context?

§ 5. *The Sensible Appearance not merely the Thing itself appearing.*—At this point, it is necessary to consider a certain way of answering this question, which, if it were true, would imply that the question itself arises out of mere confusion of thought. I have proceeded on the assumption that the sensible appearance is itself something which appears or is known, and I have contended that this something has an existence distinct from the material thing perceived. Now a critic may here accuse me of a twofold error. He may say:

"In affirming the distinct existence of thing and sensible appearance, you confuse appearance in the sense of what appears or is perceived with appearance in the sense in which it merely means the fact of appearing or becoming perceived. If you insist on meaning by appearance something which appears, you are wrong in asserting the distinct existence of material thing and sensible appearance. The distinction is not a distinction between two existences. It is a distinction between the material thing as it appears imperfectly or wrongly and the same thing as it appears more fully and correctly."

The points raised in this hypothetical criticism are of the utmost importance. Unless we come to clear understanding in regard to them the problem we are discussing will be affected with fatal ambiguity, precluding the possibility of a satisfactory solution.

What lends plausibility to the criticism is simply its

vagueness and generality. It breaks down when we bring it to the test of facts by examining simple instances of the distinction between sensible appearance and material thing. I look at a candle flame, and, in doing so, I press against my right eyeball so as to displace it; immediately I become aware of two visual appearances instead of one. One of the visual presentations dances up and down as I move my eyeball while the other remains at rest. Now it is plainly nonsense to say that what I call the doubleness of the visual appearance simply means that I perceive the single candle twice, or that it appears to me twice. What I am aware of is two separate objects, one of which moves while the other is unmoved. The case is not comparable to my recognising that $2 + 2 = 4$ to-day, and again recognising the same truth to-morrow. I am aware of two actual existences each with its own positive nature; I am not merely aware of the same existence twice over. Again it is nonsense to say that the doubled visual appearance is the candle-flame itself as imperfectly apprehended by me. On this view the imperfect apprehension must involve a positive error. For the imperfection would consist in apprehending as two what is really one. But in fact there is no such misapprehension. I know quite well that there is only a single candle-flame, and yet the two visual appearances persist unaffected by this knowledge. But a mistake vanishes when it is corrected. The doubleness of the visual appearance is, therefore, an actual fact and not an error or illusion.

Consider, next, the visual appearance of the full moon as seen from the earth's surface. This is certainly not a mere appearing but something which appears—a silvery patch with a perfectly determinate shape and magnitude. Are we then to say that this something which appears is just the moon itself as imperfectly apprehended? It is certainly true that merely looking at the moon gives us a very imperfect and erroneous notion of it. A child, for instance, may take it to have a flat surface about as big as an ordinary dinner-plate. But when this impression is rectified by full astronomical knowledge, the visual appearance, as such, remains just as it was before. It still, for example, has a determinate

magnitude which can be by no means identified with the magnitude of the moon, either as rightly or as wrongly apprehended. The identification is impossible, not because the visual magnitude is smaller than that of the moon, for this is really a meaningless statement; the identification is impossible because the two magnitudes are, in principle, incapable of being compared. The visual appearance of the moon cannot be compared as regards its magnitude either with the moon itself, or with any other material thing. It can only be compared with other visual appearances as such. It is nonsense to say that it is as big as a plate or a half-crown. But it may be quite true that it is as big as the visual appearance of the plate when the plate is a certain distance from the eye, and it may be at the same time equally true that it is as big as the visual appearance of a half-crown, when the half-crown is at a certain distance from the eye. When compared with other visual appearances it has a quite definite and definitely measurable magnitude. It occupies a determinate portion of the total field of visual sensation. It may itself be used as a unit of measurement: thus Helmholtz estimates that the portion of the field of visual sensation which would correspond to the blind spot is equal to many full moons. Now, if this extensive magnitude of visual appearance is not even comparable with the extensive magnitude of material things, it cannot be identified with the extensive magnitude of material things, however imperfectly or erroneously apprehended.

Arguments of this type seem fully to justify us in regarding sensible appearances as having an existence and a positive nature of their own, distinct from material things and their attributes, however imperfectly and erroneously these may be apprehended. The sensible appearance is itself something that appears, and this something is not matter; it is not even matter appearing in a fragmentary and distorted way.

We have then stated our problem accurately in making it a question of the relation of two distinct existences. What we have to discover is how it is that one of these existences —the sensible appearance—so interpenetrates the other—

the material thing—that apart from it there would be no material thing.

§ 6. *The Independent Not-self.*—The first attempt to solve this problem, in modern times, is best represented by Locke. It consists in regarding sensible appearance as representing the material world as a reflection in a mirror represents the reflected surface. All that we directly know is, not matter itself, but an image or copy of it. And this image or copy of it is not even accurate. It is intermixed with elements which do not resemble any attributes of matter. Such elements are sensible colour, heat, odour, sound, and the like. On the other hand, extension and motion are really properties of matter; but we do not in any ordinary sense of the words perceive them or directly know them. We only perceive certain qualities of our sensations which resemble them. This doctrine is obviously indefensible. It makes impossible the knowledge which we actually possess of material things. If it were true, we should never even be able to compare the nature of matter with the nature of sensible appearance, so as to judge of their resemblance or difference.

Another and a widely diffused type of theory arises from acceptance of one of the propositions on which the Lockian doctrine is founded, together with the rejection of the other. The proposition that we directly and positively know only sensible appearance is accepted. The proposition that we do not know matter directly and positively is rejected. But if matter is directly or positively known, and if all that we directly and positively know is sensible appearance, it follows that matter and its sensible appearance must be identical. This is the doctrine maintained in its purest form by Berkeley and Mill, and also, though with very important modifications, by many writers who draw their inspiration from Kant. What is essential to it is the assertion that actual existence belongs not to matter in any sense in which it can be distinguished from sensation, but only to sensations as they come and go in individual experience. The ordinary distinction between thing and sensation becomes, on this view, a distinction between sensations actu-

ally experienced and a systematic order which comprehends not only actual but possible sense-experience. Thus the material world, so far as it is distinguishable from sensible appearance, consists, according to this doctrine, in unrealised possibilities. There are two fatal objections to such theories. In the first place, the material world, as essentially presupposed in the procedure of common sense and science, is not a system of possibilities, but of actual existences, persisting, changing and acting on each other. In the second place, the supposed fixed and uniform order of possible sensations is a fiction, if it be regarded as belonging to sensations as such, apart from a material world, assumed to exist independently of the sensations, and in particular a sentient organism interacting with a material environment. This last objection is evaded by remodelling the theory on Kantian lines. The distinction between matter and sensible appearance is then drawn in a different way. Matter is regarded as an ideal construction for which the material is supplied by the content of sense-presentation. But the construction takes place according to certain universal principles or rules of synthesis, which determine connexions quite independent of the coming and going of actual or even of possible sensations in individual experience. Such principles are those of Causality, Substance, and Reciprocity, as formulated by Kant. The content of sense-experience, elaborated according to such rules of combination, yields an order which is objective in the sense that it is independent of the vicissitudes of the private history of any individual mind. This doctrine has certainly great advantages as compared with Berkeley's or Mill's. It shows how and why the nature of sensible appearance so interpenetrates the nature of matter that apart from sensible appearance there would be for us no matter. So far, the Kantian seems to me to stand on solid ground. On the other hand he is also successful in showing that in his view the being of matter must be distinct from and relatively independent of the being of sensible appearance. But, as regards this second point, the explanation offered appears to me to be defective. It is defective because the *kind* of being

which it ascribes to matter is not the kind of being which belongs to matter as we know it. Matter as we know it is an actual existence, enduring, changing, acting, and being acted on. It cannot, therefore, be a conceptual order in which content is divorced from existence. It is absurd to suppose that the mathematician may awake some morning and find that his perfect fluid has become viscous during the night. Similarly, if my fire is merely an ideal construction, using the content of sensation as its material, it is nonsensical to suppose that leaving it burning brightly I can return and find that it has gone out.

Plainly Kant's own unknowable thing, *per se*, can be of no use here. What we require is a system of actual existences which are at least known as enduring, changing, and interacting, and known as connected in the most intimate way with our sense-experience. Matter can only be constituted by the qualification of such actual existences by the content of sensible appearance. This, no doubt, involves, even from the outset, a process which, in a wide sense of the term, may be called "ideal construction". But the construction must be a *construing*—a construing in terms of sensation of the nature and behaviour of an actual existence other than sensation or any immediate experiences of the individual.

Let us call this actual existence the independent not-self.

§ 7. *The Independent Not-self is not unknowable.*—At this point we reach a critical stage in our inquiry. We are confronted by the question, "How is the independent not-self in the first instance known? How, indeed, can it be known, since it confessedly transcends experience?"

I reply that it does not transcend experience in any sense which could make it unknowable. It does, indeed, transcend purely immediate experience. But purely immediate experience is transcended in all knowledge, even in the knowledge of sensations and of subjective states.

By purely immediate experience I mean such experience as we have of a toothache, in so far as at any moment it is actually being felt, or of a sound, in so far as at any moment it is actually being heard. Past toothaches or

past phases in the history of the same toothache may indeed be known; but they are not immediately experienced at the moment in which they are known. Immediate experiences in this sense are cognate accusatives after the verb "to experience". In this sense we speak of experiencing a toothache as we speak of jumping a jump. To experience a toothache is to experience a certain kind of experience. Such immediacy does not include any distinction of subject and object. The experiencing is distinguished from the content experienced only as colour in general is distinguished from this or that special colour.

In this strict sense of immediacy, being immediately experienced is not the same as being known. On the contrary, it would seem that purely immediate experience neither does nor can *by itself* constitute an object of knowledge. The toothache which I know is not merely the momentary phase of it which I am immediately feeling; it also embraces past phases which I am not immediately feeling. It is known to me, for example, as having duration, and as having changed in intensity and otherwise. The immediate experience is known only as related to what at the moment is not immediately experienced. Otherwise, there would be no distinction of subject and object, and consequently no knowledge. On the other hand, the constituents of the known object which are not immediately experienced are known only through their relatedness to immediate experience. Ultimately it is immediate experience which determines and specifies them for thought. Immediate experience, being essentially fragmentary, points beyond itself, so that in knowing it we *ipso facto* know that to which it is related. And the relation must in each case have a specific character implied in the specific nature of the immediate experience.

From this point of view, it is convenient to speak of the immediate experience as "representing" or "standing for" what is not immediately experienced. But representation in this sense must be carefully distinguished from representation which presupposes a previous independent knowledge of what is represented, and an examination of

its relation to that which we regard as representing it. A memory-image does not represent what is remembered as a photograph represents a person. We are not enabled to remember by first ascertaining that the memory-image is representative. On the contrary, it is only because we have already remembered by means of it that we are justified in regarding it as representative.

The distinction between purely immediate experience and what it implies is a distinction which is drawn only by reflective analysis. For ordinary unreflective consciousness the two coalesce in distinctionless unity. In listening to a sound—*e.g.* a crescendo or diminuendo note—I do not, explicitly, discriminate the phase of the sound which is being immediately heard from the sound as a whole. So, in remembering a past experience, I do not, normally, discriminate the memory-image from the experience remembered.

Even when the distinction comes to be made in critical reflection, it cannot take the form of a distinction between premise and conclusion, so as to constitute what we ordinarily call an *inference*. For inference involves the logical transition from one cognition to another cognition. But the kind of mediacy with which we are here dealing is essential to the being of any cognition at all. It does not belong to the development of knowledge. Rather, it is necessary to constitute the germ from which knowledge may develop.

Yet, though we may not call it inference, it would be a far graver error to speak of it as "instinct" or as "isolated intuition". Like inference, it has its ultimate ground in the unity and identity of the Universe, in virtue of which knowledge of a part is partial knowledge of the whole to which it belongs. Each individual at any moment apprehends the universe in its unity from his own limited and peculiar point of view. This point of view is ultimately determined for the individual at any moment by the nature of his immediate experience at that moment. His immediate experience, as it were, radiates from itself a halo of implications, and in this way primary knowledge is constituted. Such

primary knowledge may then mediate further knowledge by way of what we call Inference.[1]

Returning to our special problem, I would suggest that the independent not-self is known from the beginning of conscious life, not indeed by inference, but as a direct implication of immediate experience. The case is indeed different from those I have so far considered. I have, so far, referred only to instances in which the immediate experience of the moment points beyond itself to other immediate experiences past, future, or merely possible, of the individual knower; but the independent not-self is other than any actual or possible immediate experience of the individual who knows it. The distinction is undeniable. But I cannot see that it is relevant to the question at issue. The only assignable ground why the immediate experience of the moment points beyond itself is the unity of the universe. It is purely arbitrary to substitute here for the unity of the universe the partial and imperfect unity of the individual. The individual is himself merely a fragment of the universe without any self-contained being. We may therefore assume that from the beginning of his conscious life there must be features of his immediate experience which point beyond themselves to existence other than his own, or than any or all of his immediate experiences.

The opposite view leads to insuperable difficulties. If we start by assuming that the individual is initially confined within the circle of his own immediate experiences, it seems impossible to discover how he could ever get beyond them, so as to know matter or other minds. He could only do so by

[1] The necessity for this specifying function of purely immediate experience is best seen when we consider the meaning of such words as "now", "here", and "this". How is the meaning of such words determined for thought? Ultimately by immediate experience not as known or thought of, but merely as immediately experienced. The word "now" applies to an indefinite number of "nows". The "now" referred to, in any particular instance of its use, is determined for us as the moment of actual experience. But it is not determined by the logically prior cognition of such actual experience. For the term "actual experience" shares the ambiguity of the term "now". If we ask what actual experience is referred to, we can only answer "that which *now* exists", and are thus involved in a vicious circle. The only possible escape lies in the doctrine that it is not the thought of the actual experience which particularises the "now", but the actual experience itself as it immediately exists.

inference. But all explanation of this kind seems necessarily to involve *petitio principii*. For, though inference yields new knowledge, yet this new knowledge is always a further determination of what we already know indeterminately. In inference we do indeed transcend our data, but only by a continuous development of our data. Thus, if we presuppose that an independent not-self is already known, however vaguely, inference will enable us progressively to define and specify it. But inference cannot yield our primary knowledge of an independent not-self.

On the contrary, we must recognise that, from the outset, there are features of our immediate experience which perpetually point beyond themselves to actual existence, other than our own or than any immediate experiences of ours.

§ 8. *Positive Account of our Knowledge of the Independent Not-self.*—What are these features of immediate experience? Here I must confine myself to a brief indication of my own view without attempting to defend or develop it in detail. I agree with those who find the key to our knowledge of an independent not-self in our awareness of passivity in undergoing sensations, in combination with our awareness of activity in determining what sensations we shall undergo.

Our passivity in having sensations occur to us involves an agent which determines their occurrence. Our activity in getting, keeping, or discontinuing sensations implies that we in our turn act on this agent, so as to determine what sensations it shall generate. Thus, in both ways, coincidently, we are from the commencement perpetually dealing with an independent not-self, whose activity is, so to speak, the other side of our passivity, and whose passivity is the other side of our activity.

But we must not regard our knowledge of the independent not-self as due to an inference. It cannot be that we start with the premise, "I am passively affected", and from it proceed to the conclusion, "therefore there is something active in relation to me". Any attempted explanation of this sort necessarily involves a vicious circle. For we cannot

apprehend our passivity without *eo ipso* apprehending something as active in relation to us. Thus the supposed conclusion is already an integral part of its supposed premise.

There is indeed an element of mediacy in our cognition of the independent not-self. But the mediacy is already contained in our awareness of passivity in undergoing sensations, and of activity in getting them. These cognitions have the complexity which belongs to all cognition. They contain features of immediate experience which, owing to their fragmentary nature, cannot by themselves be distinct objects of knowledge, but can only be known as related to something which is not immediately experienced. And, owing to the peculiar nature of these immediate experiences, the correlate, which is necessarily known in knowing them, is the independent not-self.

§ 9. *Our Knowledge of Matter.*—The independent not-self is not matter. It only furnishes one constituent of the complex unity which we call matter. Matter also essentially includes the qualification of the independent not-self by the content of sense-experience. It follows from the mode in which the not-self is known that it is from the outset so qualified. From the outset, it is known as related in specific ways to sense-experience. In this sense, we may speak of it as "represented" in terms of sense experience. And this representative function of actual sensation forms the necessary basis of the ideal construction, or construing, through which our knowledge of the material world develops.

But we must hasten to add that, primarily, there is no explicit distinction between representation and what is represented any more than there is primarily any explicit distinction between our immediate experience in remembering and the experience remembered. Such distinctions only emerge in critical reflection, and they only become fully clear to the philosopher. For primitive consciousness and for our own unreflective consciousness, sense-experience and the correlative agency which conditions it coalesce in one unanalysed total object. They coalesce in such a way that the sense-presentation appears as possessing the

independence of the not-self, and the independent not-self seems to be given with the same immediacy as the sense-presentation.

This complex but unanalysed cognition is the germ from which our detailed knowledge of matter develops. To trace this development lies outside my present scope. In dealing with it, we should, in the first place, have to give an account of the distinction of matter into a plurality of distinct things, and of the peculiar nature of that special thing which we call the body of the percipient and its peculiar relation to subjective process—a relation which leads to the distinction between the self as embodied and its material environment. When this point is reached what follows is, comparatively speaking, an affair of detail.

§ 10. *Knowledge of Minds other than our Own.*—In considering the independent not-self as qualified in terms of sense-experience, and so forming a constituent of matter, we have not exhausted its nature or our knowledge of it. It must also have an inner being of its own, and this inner being is known to us as more or less analogous to our own. We know the independent not-self, in the first instance, as the complement and continuation of our own being. Its activity is known as the other side of our passivity, and its passivity as the other side of our activity. Neither its activity nor its passivity have ultimately any meaning for us except as the counterpart of our own immediate experience in doing and undergoing. And whatever knowledge we may attain concerning its inner nature can only be a further development of this primary cognition. So far as we have any insight into its inner being we must apprehend it as another self, or as a partial aspect of another self more or less like our own.

But it is only within a certain region of our experience that this mode of determining the nature of the independent not-self yields definitely verifiable results. It is only in dealing with men, and in a less degree with animals, that this anthropomorphic point of view is found to work in verifiable detail, so as to subserve the development of knowledge and the guidance of conduct. In relatively primitive stages of

mental life, we find an indiscriminate anthropomorphism which is gradually restricted and corrected by advancing experience of its futility. But anthropomorphism neither is nor ought to be wholly eliminated. For we must continue to think of actual existences other than our own as having an inner being not exhausted in their relation to us and our sense-experience. And such inner being can only be conceived as psychical. Inner states and processes must, as Lotze maintained, be experienced states and processes.

VIII

IN WHAT WAY IS MEMORY-KNOWLEDGE IMMEDIATE?

§ 1. *What I Maintain.*—My aim is to show (1) that in remembering past events, we have a knowledge which is immediate in the sense that it is not inferential or representative in any ordinary or natural meaning of these terms; (2) that in thus remembering, we do not actually experience what we remember in the process of remembering it. What is actually or immediately experienced belongs to our present and is not apprehended as past or future. On the contrary to be past means primarily for us to be before what we are actually experiencing: to be future means to be after what we actually experience. While we are remembering, the remembering is an actual experience. But the past which is remembered as such is not actually experienced in remembering it.

None the less memory-knowledge of the past is logically rooted and grounded in actual present experience. Apart from this it has no independent footing. The appeal to memory is an appeal to what we are now actually experiencing—to what we actually experience in consequence of the attempt to recollect. The reason is that in the act of remembering, what we presently and actually experience is essentially incomplete and cannot be apprehended at all except as continued from its own past. Indeed remembrance is as indispensable to knowledge of the present as such as it is to knowledge of the past as such.

§ 2. *Ambiguity of the Term Memory.*—In order to define precisely my scope and aim it will be well to indicate topics with which I am not directly concerned. The term "memory"

in ordinary usage is ambiguous. It is not confined to reminiscence as a primary way of knowing past events as such; it also covers retentiveness in general as an indispensable condition of the unity and continuity of individual experience. There is retentiveness if and so far as the result of bygone mental process persists and is carried forward, as occasion requires, into subsequent mental process. In memory as reminiscence, on the other hand, what we are cognisant of, vaguely or definitely, is the bygone experiences themselves as belonging to our past history. I now know the multiplication table in consequence of having learned it in my childhood. The mental work which I then did does not need to be repeated; but it may be doubted whether I remember my bygone experience of learning it at all, as part of my past history. I certainly do not remember the several particular occasions on which I repeated "twice one are two, twice two are four", etc. Again, I am now able to walk; but the trials and failures through which I learned to do so are forgotten: only the result remains. Descartes in early childhood was very fond of a little girl who squinted; hence in after life he was prepossessed in favour of persons who squinted. This is a good example of retentiveness. But he also remembered his childish love affair as an episode in his own history; this is reminiscence. In pathological cases of suppression there is a complete failure of reminiscence, but not of retentiveness. A boy, for instance, is imprisoned in a narrow passage with a savage dog; in after life he is quite unable to remember this experience; but its result is retained and carried forward into subsequent experience as a horror of confined space and in other ways. On the other hand, if he does succeed in remembering the past experience as such, his horror of confined spaces and other mental troubles cease. The result of the past experience is no longer carried forward into the present in the same way and its influence is incomparably less intense and pervasive. If these two meanings of memory are so clearly distinguishable, it may be asked why in ordinary language the same word covers both? The answer is that though distinct they are intimately interconnected. In the first place, retentive-

ness is an indispensable condition of reminiscence. Remembrance of the past must have a foothold in present experience in the moment of remembering. But this is only possible if the result of past experience is carried forward into the present. In the next place it rarely, if ever, happens, when attention is not otherwise absorbed, that retentiveness is completely separated from reminiscence, though the reference to the past may be extremely indefinite and rudimentary. There is at least the vague sense that what we are now occupied with is not absolutely new to us—that we have had dealings with this sort of thing before, though time, place, and circumstance are left unspecified.

It is only with reminiscence definite or indefinite that I am primarily concerned in this paper; and reminiscence I have assumed is not only of past occurrences but of past occurrences in the individual's own mental history. It may be objected that we also remember other events. We freely make statements such as: "I remember that it was a rainy day"; "I remember that Jones said so-and-so"; "I remember that he was drunk". That Jones said so-and-so may be regarded as falling within my own experience in the sense that it was in and through a past experience of my own that I became cognisant of it. But what I thus became cognisant of is not itself part of my individual history. It is rather part of the individual history of Jones. The vital point is that we have no reminiscence of past occurrences as such apart from reminiscence, vague or definite, of some past experience of our own in which we became cognisant of them. The proposition "I remember that Jones said so-and-so" expresses only a partial aspect of the total past remembered; the full statement is "I remember hearing Jones say so, or being told that he said so, or learning somehow or other that he said so". All reminiscence includes such reference to the past course of the individual's own private experience. It includes more than this only because the past experience is essentially relative to objects other than itself.

§ 3. *The Specious Present.*—The question may be raised how and how far these statements apply to what is called

the specious present. I meet this question by another—What is the specious present? If I seek an answer from those who have written on the subject, I find only two points clearly expressed. (1) In the specious present there somehow really is a finite time, in which a later experience succeeds an earlier. (2) That, none the less, the experiencing subject does not discriminate the later stage as present from the earlier as past. It is for him as if the whole were present together. If we push inquiry and ask what really takes place, we can get no precise and consistent answer from most of those who make much of the specious present. They simply leave us with the paradox that the subject both does and does not apprehend change and succession in his experience. I must therefore myself attempt to supply the required analysis. I distinguish two main cases. In the first there is retentiveness without reminiscence: in the second there is also reminiscence, but it is, in a way I shall explain, belated reminiscence. We may take an example of the first type from ordinary sense-perception. I see a geometrical pattern and I seem to take it in at a glance so as to be able to describe it correctly. I do not distinguish earlier and later stages in the process of apprehending it: still less do I apprehend the later as present in relation to the earlier as past. Yet there is cogent evidence not only that the process takes time as measured by physical instruments but also that it includes earlier and later experiences which differ from each other. If the pattern is exposed to my eyes only for a very brief time, I see it very imperfectly and confusedly so that I can give no accurate account of it. It requires a series of repetitions of such transitory glimpses to enable me gradually to become aware of the pattern as fully and distinctly as we ordinarily perceive it in what we call a single glance. It follows that even the single glance includes different successive stages and that the result of the first is carried forward into those which follow. There is thus memory in the sense of retentiveness. But in the later stages we are not cognisant of the earlier as such. Indeed we do not discriminate the different stages from each other at all. There is therefore no reminiscence and, as it is only with

reminiscence that I am here concerned, I need not consider cases of this sort at all. (2) As an instance of the second type we may take a double rap such as was made by a postman when knockers were common. Up to a certain point the previous analysis holds good for this case also. There is successive experience: the first knock is heard before the second. There is also retentiveness. The individual's experience when the second knock occurs has a character which it would not have if he had not heard the first. Further, there is at first no reminiscence. In actually experiencing the second sound the subject does not definitely discriminate it as a present occurrence from the first as a past occurrence. The second treads too closely on the heels of the first to admit such discrimination between past and present as such. So far there is no remembrance of the past as such. This just emerges subsequently when the whole experience of having heard the double knock is remembered. Here again there is, so far, nothing to distinguish this case from that of seeing the geometrical pattern, which also may be remembered as a past event when it is over. There is, however, an important difference. In thus remembering as a past event the whole experience of hearing the double rap, I distinguish within it an earlier and a later stage. I am aware of one sound as having been heard before the other. Both are apprehended as past, relative to the present in which I am remembering them; but one is apprehended as nearer to this present than the other. I have chosen an instance in which the subject, in the moment of introspection, discriminates more or less definitely one particular stage in his bygone experience as earlier from another as later. But this is not necessary and it is never perhaps a complete account of what takes place. We have to take account of inarticulate reminiscence. In this the subject is indeed aware of his past experience as a change with successive stages; but he is unable to pick out severally this and that particular stage so as to specify one of them as being earlier and the other as being later. In the flight of a bird we may roughly distinguish earlier from later stages so as to be aware that this precedes and that follows. If, however,

we attempt in like manner to discriminate smaller parts within these parts we find a limit to our power of subdivision. We have to be content with inarticulate reminiscence in which we are aware of a before and after without being able to specify separately what precedes and what follows. However inarticulate reminiscence may be, it is still reminiscence, not mere retentiveness: and what I have said in general about remembrance of the past as such applies to this form of it.

§ 4. *Do we immediately experience what we remember as past?*—Why and in what sense I deny that in reminiscence we immediately experience what we remember may be best shown by a typical example. A man is thirsty and desires to appease his thirst by drinking. No one, I presume, will assert that in this state of desire the man actually experiences the quenching of his thirst or quenched thirst. For the desire and its satisfaction are incompatible; they cannot be actually experienced together at the same time. Now it seems to me that we do violence to language if we say that an individual experiences immediately what he does not actually experience, or conversely, that he actually experiences what he does not immediately experience. Hence I take "actual", in the sense illustrated by my example, as synonymous with "immediate". If anyone uses the phrase "immediate experience" in a different sense, he must first show me what he means by it before I can decide whether or not I agree with what he says about it. To return to our example, let us suppose that the thirsty man has just quenched his thirst by drinking, and that he then remembers having been thirsty. What he properly and immediately remembers is the actual experience of having been thirsty, not any simulacrum or representation of it with the sting extracted. The object or an essential part of the object of his thought and attention in remembering is his bygone experience as it actually occurred. But he is not actually living through it while he is remembering it as past. This is impossible just because thirst satisfied and the same thirst unsatisfied are so far incompatible that they cannot both be actually experienced together at the same time.

It may be said that this holds good, indeed, in such an instance as I have chosen, but that it need not therefore be universally true. I reply that it holds universally for reminiscence properly so called. If the specious present is taken to include reminiscence, it holds *pro tanto* for the specious present. In all reminiscence there is a difference between the past and the present which is a bar to their union in the same moment of actual experience. There must at least be a difference due to retentiveness. The actual present must have a distinctive character just because it has been preceded by the actual past which is remembered, and because the result of this past experience is carried forward into and has modified the present. So far as retentiveness of this sort fails, reminiscence also fails: an old man, for instance, may tell the same story over and over again without being aware that he is repeating himself. The same thing may occur if retentiveness is too complete, so as merely to give rise in the present to an experience indistinguishably similar to the past. This is perhaps a relatively rare occurrence. But approximations to it are on record. Galton tells us that in his advanced age he frequently recalled the scenes of his youth so vividly and with such detailed distinctness that he found it hard to realise that he was remembering what was past rather than living through an actual present experience. Sometimes, if I understand him rightly, he failed to realise this at all. Such cases do indeed illustrate retentiveness in a form so extreme as to be almost pathological. But the point is that in them the conditions are unfavourable to reminiscence and may exclude it altogether. I hold that what is remembered as past is *never* actually experienced in remembering it. But even if this were untrue, it would still remain for me a most important fact that *sometimes* we remember what we are not actually experiencing. For if this be once admitted, it is admitted that there is a type of knowledge, concerned with particular matter of fact, which is immediate, not inferential or representative; and that none the less what is thus immediately known is known without being *actually* experienced, and therefore without being *immediately* experienced in the meaning I attach to

that phrase. What interests me is that such immediate knowledge of matter of fact need not be, and, as I hold, is not confined to remembrance of the past. For instance, it seems to me to be primarily and essentially involved in sense-perception, and also in our awareness of causal dependence.

§ 5. *Retentiveness and Immediate Experience.*—So far I have considered retentiveness only in order to distinguish it from reminiscence. I must now deal with it directly in order to face the question whether we immediately experience in the present what is retained from the past. At the outset, I have to lay down a general principle which will not, I presume, be challenged. Only what has been acquired in past mental process can be carried forward into subsequent mental process. What has not been immediately experienced in the past cannot therefore, merely through retentiveness, come to be immediately experienced in the present. Having previously learned that the sun is many times larger than the earth, I now retain this knowledge. But the knowledge I retain is only such as I originally acquired. If, for instance, I originally accepted this proposition on authority without knowing the reasons for it, the reasons cannot be supplied through mere retentiveness. The only problem is whether through retentiveness we can actually experience again what we have actually experienced before. That the first experiencing is a process numerically distinct from the second, I take for granted. We are concerned not with the experiencing but only with what is immediately experienced, or, as we may conveniently call it, the experienced "content". Is this always or ever numerically identical in the present and in the past? We must first clear up an ambiguity which may otherwise cause confusion. It is one question whether *a* and *b* are individually identical with each other; it is quite a different question whether they are connected within the identity of the same individual as distinguishable phases of its whole being. I sleep at one time and eat at another. Sleeping and eating are phases in the life history of the same individual. But my sleeping is not numerically identical with my eating; and my eating at

one time is not thus identical, however similar it may be, with my eating at another. Or, to take an example more closely relevant to our present topic, a colour sensum changes from red, through intermediate shades of orange, to yellow. Now what is actually experienced at one stage of this process is not directly and numerically identical with what is thus experienced at another; otherwise there would be no change: the several successive contents are what Hume would call distinct simple impressions. But they are not merely loose and separate—a disjointed plurality. On the contrary they are included within the identity of what we call the changing colour; they are successive phases of its single history. This sort of identity seems to be essential to the very concept of change.

When and so far as what we immediately experience in the present is retained from the past, it seems to me that the past and present contents are not directly and individually identical with each other. The principle on which I proceed is that such identity is barred by any dissimilarity, however slight, or even the possibility of it. It may be that numerical diversity is compatible with exact and complete sameness of nature; but difference in nature, and even the possibility of it, presupposes numerical distinctness. Now the original content and retained content do usually differ more or less in their nature. Setting aside exceptional experiences, the most favourable case for resemblance is the reproduction in an image of what we retain of an impression, *e.g.* of an actual sight in a mental picture. But there is, in general, some difference in nature between image and impression, and often it is a great difference, which is only inadequately indicated by speaking of the comparative faintness, indistinctness, and unsteadiness of the image. But the same thing cannot, in the same phase of its existence, be dissimilar to itself. The reply that it may be so in different phases leads to the second alternative, which I take to be the true one. Original content and retained content are not directly identical with each other but are connected within an identity: they are successive stages in the history of the same thing. The direct evidence for this is supplied by

reminiscence. In immediately experiencing a memory-image I am aware of it as continued from a past impression or past impressions. Both memory-image and past impressions are occurrents in the history of what relatively to them is a "continuant". How far they resemble each other is a secondary though an important question.

How, it may be asked, can we assert this sort of continuity, if there is a temporal gap separating impression and image? I answer that this gap is bridged by what takes place "below the threshold of consciousness". This phrase is no doubt vague and obscure. When we seek to determine what precisely it stands for there is room for wide divergence of views. The plain man speaks of the storehouse of memory or of the prints or traces left behind by previous experience. The psychologist may put forward a doctrine of subconscious persistence, such as Ward's: or he may prefer to represent what takes place in terms of dispositions and dispositional processes: these again he may conceive as psychological or as purely physiological. I do not assert that any of these views can ultimately satisfy the philosopher. What seems to me undeniable is that they are dealing with a real problem directly and essentially involved in the facts of retentiveness and reminiscence. However inadequate or false may be our account of it, there is a "continuant" which connects the original and the reproduced contents.

§ 6. *Reminiscence as Presupposing Retentiveness.*— Though reminiscence is not retentiveness, yet without retentiveness it could not exist at all. In remembering past experience as such we are cognisant of it as past relatively to our own actual present in the moment of remembering it. Our total object is a complex unity which includes present and past in relation to each other. We are aware of the actual present as continued back into a certain past specially connected with it; and of this past as prolonged forward into the actual present. But this seems possible only on one condition. Since the past itself is not actually experienced there is no clue to it, unless the actual present is stamped with a character due to the fact that the result of past experience is continued into it. Further, this character must be

specifically different according to the specific nature of the past which is remembered. I do not, of course, mean that reminiscence consists in apprehending this character of the actual present. On the contrary, this character by its intrinsic nature is so essentially relative and incomplete that it cannot be apprehended at all without apprehending what is required to complete it, *i.e.* the past experience which is remembered. This view seems to me to be fully borne out by introspection. If I ask myself how and why I am justified in asserting on the evidence of memory that I have had this or that past experience I find only one answer, and this seems sufficient—my actual present would not be such as it is if it had not behind it a certain actual past. Hence I maintain that in relying on memory we are relying on immediate present experience. We can have one leg in the past only because the other has a foothold in the present.

If this be denied, the only alternative seems to be clairvoyance or absolutely *a priori* knowledge of matter of fact. But we no longer believe in miracles.

§ 7. *The Immediacy of Memory-knowledge.*—If I am right, we do not, in remembering the past as such, actually or immediately experience it. But I also emphatically maintain that we immediately know it. To explain this position, it is necessary to fix the meaning of the distinction between immediate and mediate knowledge, so as to clear it from confusing ambiguities.

In the first place I have summarily to exclude a supposed sense of the term mediate, which is in reality nonsense. No knowledge, however imperfect, can be mediate in the sense that something is interposed like a screen between the knowing mind and what it knows. If this were so, only the intervening screen would be known, not that which lies behind it. This excludes all representative theories of knowledge such as the Cartesian doctrine of ideas. There is no knowing what is represented without knowing its relation to what represents it, and this presupposes a knowledge of both which must ultimately be immediate and cannot itself be representative.

None the less we do ordinarily distinguish between

knowing mediately and knowing immediately. We further assume that the division is exhaustive; we assume that there is no knowledge which does not fall under one or other of these two heads. How then do we actually proceed in distinguishing the knowledge which we call mediate from the knowledge which we call immediate? It seems to me that it is easy to find a provisional answer to this question which, though not adequate, is true as far as it goes. It is generally recognised that what is known by inference is mediately known; and that if and so far as knowledge involves no inference it is immediate. From this point of view I feel bound to reject a positive view of immediacy which is frequently taken for granted as a matter of course. Those who take this view virtually begin by defining immediate knowledge as the sort of knowledge which we can have only if and so far as what we know is being actually experienced at the time we take cognisance of it, *e.g.* the sort of knowledge we can have of a toothache only when we are actually feeling it. I ask whether those who would accept this definition also hold that whatever knowledge is not immediate in this sense must be immediate in the sense that it is reached by inference. If they do not then they leave a no man's land between what is immediately known in their narrow sense, and what is known as a conclusion from premises. If they do, then they are assuming precisely what requires to be proved instead of being covertly taken for granted. What they thus take for granted seems to me *prima facie* untenable when we turn to the facts. It seems to me that I know directly and not through inference that $2+2=4$, that things that are equal to the same thing are equal to one another, that the series of infinite numbers is infinite, and that if all x's are y's some y's are x's. Yet this I submit is not the sort of thing which anybody could actually experience as he experiences a toothache or particular colour sensum. I cannot, for instance, thus experience the number two or any particular instance of it as such. In general I cannot so experience universals and universal propositions. Still, it may be said, the case is essentially different for particular matter of fact. If in knowing a particular matter of

fact we are not actually experiencing it, the only alternative is that we infer it. I answer that this is precisely the problem raised in this paper: and I urge that it cannot be solved by an arbitrary definition which begs the question from the outset. The only legitimate way of dealing with it is by examining different types of knowledge. It is perfectly fair that I should be called on to give examples bearing out my own view. But this is just what I have tried to do. I have produced as an example our knowledge of the past in memory. On the one hand this involves no inference; on the other what is known is not actually experienced in the act of knowing it.

§ 8. *Why what is inferred is said to be known mediately.* —When we say that inference is mediate, and that all other ways of knowing are immediate, what is the precise nature of the difference on which this distinction is based? If we consider merely formal inference the distinction does not seem to have any warrant at all. In merely formal inference the question whether the so-called premises are accepted as certain or probable is not raised at all; and therefore there is no question whether the so-called conclusion is so. The inference is said to be valid if the premises imply the conclusion: and this merely means that if the premises were true, whether in fact they are so or not, the conclusion would be true. If all horses were vegetables and all vegetables were triangular, horses would be triangular. To follow this inference is merely to perceive a relation of implication between certain propositions. But this relation is known as immediately as anything can be. It is known as immediately as it is possible to know the resemblance between two peas or the difference between black and white.

It is only when we turn from such formal implication to proof that we come upon a tenable meaning for the statement that inferential knowledge is mediate. In proof, the premises being asserted as certain or probable, the conclusion which they formally imply is therefore asserted as probable or certain. This presupposes that there is ground or evidence of some sort for accepting the premises which is not independently ground or evidence for the conclusion.

It supports the conclusion not directly but indirectly through the premises. In this sense, and only in this sense, what is known through inference is known mediately. From the same point of view we can define positively what we mean by knowing immediately.

In all inference which is not merely formal, there must be ground for asserting the probability or certainty of the premises. But how is this ground supplied? It may be supplied by other propositions forming the premises of prior inferences. But as Aristotle long ago insisted, this cannot be the only way: otherwise we should, in the long run, find no foothold at all. In the long run there must be judgements concerning both what is probable and what is certain, containing their own evidence within themselves: containing it in such a way that it cannot be extracted and asserted by itself in a distinct proposition. If we attempt so to dissect it out we lose it altogether. This is exemplified by the self-evidence of axioms, whether these assert probability or certainty. *E.g.* if x is greater than y, and y is in the same respect greater than z, x is in that respect greater than z: if there are 1000 black balls in a bag, and only one white one, in a random selection a black ball is more likely to be drawn than a white one: or inversely, if in 100 consecutive trials only black balls are drawn, it is likelier than not that there are more black balls in the bag than white. Such propositions as these are universal. But there is, if I am right, an analogous immediacy in some fundamental ways of knowing particular matters of fact. Only in this case the internal ground of the judgement must itself be particular matter of fact. What is here maintained is that the memory judgement that we have, certainly or probably, had such or such an experience in the past is of this nature. The internal ground is a character of actual present experience. But it is not capable of being known by itself in such a way as to be asserted in a proposition distinct from the memory judgement itself as premise is distinct from conclusion.

§ 9. *On the certainty and uncertainty of memory judgements.*—There yet remains a question which I have so far deliberately evaded. How far are memory judgements trust-

worthy? In one sense they are all infallible. They all yield at least a probable presumption that the past is such as we remember it to have been—a presumption which can only be overset by sufficient evidence to the contrary; and which independently supports any evidence by which it may itself be supported. But this probable presumption is of widely differing grades of strength in different memory judgements; the reason is that the character of the actual experience on which the memory judgement is founded, is determined by retentiveness, and that the manner and degree in which retentiveness operates varies greatly with varying conditions which I need not here discuss.

Are we then to say that memory judgements are always only probable, and never absolutely certain? This position is so far tenable that it is difficult or impossible to find arguments to refute it. It is not enough to urge that the deliverance of memory seems to us so sure that we are quite unable to doubt it. For probability may be so overwhelming that for all the purposes of ordinary thought and conduct it is indistinguishable from absolute objective certainty. We cannot in ordinary thought and conduct be really influenced by considering a chance of one in a billion or one in a billion billions. On the contrary, we neglect a possibility so very remote and do so quite reasonably. Within the next second the whole solar system may be dissolved. I can recognise this by an artificial effort of speculative thought. But I cannot make it a live alternative. I actually proceed in complete confidence as if there were no such possibility. In this sense there is "no possible doubt whatever". Yet there is the speculative chance, however small it may be, that I am mistaken. I myself, however, do not hold that all memory judgements are only probable. In the first place it seems to me an arbitrary assumption that however closely memory of the past may approach speculative certainty it can never reach it. If it is difficult to find general arguments to refute this thesis, it is at least as difficult to find general arguments to establish it. In the second place, when I fairly come to grips with certain memory judgements, I cannot detect even a speculative chance of mistake. Take for instance the judge-

ment that I am, at this present moment, not speaking for the first time but have had a similar experience in the past: or the judgement that in general my present experience is continued from a past, and not any past, but its own specific past. In view of such deliverances of memory, I feel bound to hold that it is at least very probable that some memory judgements are absolutely certain.

IX

BRADLEY'S THEORY OF RELATIONS

IN Part I. of his work on *Appearance and Reality*, Mr. Bradley attempts to convict all the fundamental concepts of ordinary and scientific experience of internal incoherence and consequent falsity. On first reading the book I thought that he had proved his case. Indeed, my own previous reflection had prepared me to accept his argument. But I have for long felt misgivings on the subject. My condition for some time was like that of one who gazes at a figure drawn in ambiguous perspective. At one moment he perceives lines and angles as projecting, and at another as receding. So to me Mr. Bradley's dialectic sometimes seemed to be conclusive and sometimes the reverse. However, at present my view is steady, and I appear to see that the alleged self-contradictions do not exist. This being so, I feel that it may be of some use to myself, perhaps to others, to raise a discussion on the point. And there is only one way of doing so to any purpose. It is futile to talk mere generalities in criticising such a work as *Appearance and Reality*. You must face the details of the argument or you do nothing And certainly this task might intimidate the boldest. For in close-knit dialectical reasoning, Mr. Bradley has had no superior from the time of Zèno downwards. Still the thing has got to be done if we are to make any advance. Therefore, since no one else seems to come forward, I make this attempt myself on the chance that my cause may turn out to be a good one, and may compensate my personal deficiencies.

But to deal with the whole argument of Part I. in a single paper is plainly impossible. I therefore select for the

present occasion the chapter on "Relation and Quality". I select it on the ground that Mr. Bradley himself ascribes to it fundamental importance. "The reader", he says, "who has followed and has grasped the principle of this chapter will have little need to spend his time on those that succeed it. He will have seen that our experience where relational is not true; and he will have condemned almost without a hearing the great mass of phenomena."[1]

§ 1. *Relation and Continuity.*—Before dealing with the points in which Mr. Bradley's treatment of relation fails to satisfy me, I shall first dwell on a point in which I entirely agree with him. I agree with him that no relation or system of relations can ever constitute a self-subsistent and self-contained reality. The all-inclusive universe cannot ultimately consist in a collection of interrelated terms. So far I find myself in accord with Mr. Bradley. But my reason is not found among the arguments which he advances. My reason is that all relations hold between the partial features or aspects of some whole, and that ultimately the whole, within which they fall, has a form of unity which is not, and cannot be, constituted merely by relations. It cannot be so constituted because it is a continuum, and continuous connexion, as such, is not relation in the sense in which Mr. Bradley uses the word.[2] Relation is *between* related terms, and the word BETWEEN implies that the related terms as such are discrete. If and so far as there is continuous connexion there is *nothing* between, and there is therefore no relation.

A straight line may serve as an example of a continuum. The line has two halves which stand in the relation of right and left, the one being left and the other right. The two halves, besides being related, have also a continuous connexion with each other. But the continuous connexion is not itself a relation. For it exists only at the immediate junction of the two halves. In fact it simply is this immediate

[1] *Appearance and Reality*, 2nd ed. p. 34.

[2] If anyone choose to call it a relation, he may. All I desire is that he should admit it to be a peculiar sort of relation. And its peculiarity lies in the fact that it is immediate, and therefore does not presuppose intervening links *between* the terms related.

junction. Now, if this immediate junction is a relation, there must be related terms between which it holds. But what are these? Any two portions of the line situated to right and left of the point of junction are each of them divisible into smaller portions. Let us suppose that the bit on the right is subdivided into a and b, and that on the left into α and β, and let us suppose that a and α are nearest the meeting-point. Evidently b and β are not immediately but mediately conjoined. But a and α are themselves divisible into parts, and these again may be subdivided, and so on interminably. You never can assign two portions of the line whose relation is merely that of being immediately coadjacent in the same sense as their relation is that of right and left. Only least possible, and therefore indivisible, portions could be so. But there are no least possible portions. Points, it is true, are without magnitude. But then points are not component portions of the line. A point is an immediate meeting, and for that reason points themselves cannot meet.

Within the continuous line it is possible to distinguish component parts and points of junction, and relations of these component parts and points of junction, and again, relations of these relations. And this process is interminable. The discernible relations are numberless. They do not form a sum total. But the line itself is a terminated whole. If therefore, it is to be reduced to terms and relations, it must be their sum total, and not an endless series. But since the terms and relations do not form a sum total, and do form an endless series, they cannot of themselves constitute the units of the continuous line.

Pure number expresses the essential nature of relation and relatedness, as distinguished from continuity. It is the abstract form of relational connexion. When we consider things merely as distinct and related, without reference to their special nature or the special nature of their relations, we can do nothing with them but count them. But things so far as they are countable are discrete. You cannot assign the number of portions into which a continuous line can be ultimately subdivided. You cannot do so because there is

no end number, and there are no such countable parts. Hence the possibility of incommensurable magnitudes. The ratio, for instance, of the diagonal of a square to one of its sides is not capable of numerical expression.

§ 2. *Nature of Disagreement with Mr. Bradley.*—In denying the self-sufficiency of any merely relational complex, I am at one with Mr. Bradley. But I cannot accept the line of argument by which he supports this thesis, and I feel compelled to reject another proposition which he combines with it and scarcely distinguishes from it.

(*a*) His argument consists in an attempt to show that the concept of relation contains internal discrepancies—that it is "infected and contradicts itself". Now, I admit and maintain that inconsistency is inevitable if a relational complex as such is taken to be purely self-subsistent and self-explaining. In other words, the category of relation being inadequate to express the nature of the universe, incoherence arises as if we assume it to be adequate. But Mr. Bradley appears to hold that incoherence follows not merely from this assumption, but without reference to it from the intrinsic nature of the concept itself. With him the demonstration of internal discrepancy is a step logically prior, and independent; inadequacy is a subsequent inference. His general position is clearly expressed in a reply to Professor Watson's criticism. "I deny", he says, "that time or anything else could possibly be inadequate if it were not self-contradictory."[1] As against this very plain statement of Mr. Bradley's position I would suggest that inadequacy is sufficiently demonstrated if we can show that the assumption of adequacy leads to inconsistency. It is not necessary to demonstrate self-contradiction independently of this assumption. But this is precisely what Mr. Bradley attempts to do, and what, in my opinion, he fails to do. According to him there is a vicious circle in the concept of relational complexity strictly analogous to that of a proposal to make one's way financially by always paying in ready money and living on the discount. Or, to vary the illustration, terms

[1] *Appearance and Reality*, 2nd ed. p. 612 (explanatory note to ch. xviii.).

and their relations are supposed to maintain themselves, like the Scilly islanders, by taking in each other's washing. I do not think that Mr. Bradley has succeeded in demonstrating such internal incoherence.

(*b*) In the second place, Mr. Bradley is not content with denying the self-subsistent character of relational complexity. He also maintains that in affirming relations we affirm what is false. "The conclusion to which I am brought is that a relational way of thinking—any one that moves by the machinery of terms and relations—must give appearance and not truth."[1] Thus whenever we say that any two things, *A* and *B*, are related, according to Mr. Bradley we say what is false. I suppose, therefore, the contradictory proposition must always be true. Hence it must always be true that any two things, *A* and *B*, are not related, and never true that they are related. It will be urged that this is a crude and unfair way of putting the case. For Mr. Bradley, it will be said, refers to ultimate truth, whereas I speak as if he held the relational way of thinking to be false in the ordinary everyday sense of the term. Now I admit that my statement of the case may very well be crude and unfair. Nevertheless, I have made it because it enables me to formulate a difficulty which I seriously feel. If the conception of relation is not false in the ordinary sense, in what precise sense is it false? The falsity is not mere inadequacy. It is something which calls for correction, not merely for a completion which its own nature demands. But what requires correction must, it would seem, be false in the ordinary everyday sense.

My difficulty is greatly aggravated when I consider the nature of the argument by which Mr. Bradley attempts to demonstrate falsity. If the concept of relation were really infected with the self-contradictions which he alleges, it would be false in no recondite sense, but in the ordinary everyday sense. Whoever used this concept in any judgement except that which affirms its falsity would not merely fail to express metaphysical truth; he would be telling a downright lie. A man may fight well enough after being

[1] *Appearance and Reality*, 2nd ed. p. 33.

wounded, but not after a bullet has passed through his heart. If, for example, space and time were self-contradictory in their very essence, it seems to me that space and time could not exist at all. There would be no space and no time. It is this difficulty which has led me to search for some way of escape from the pressure of Mr. Bradley's dialectic. And the only way of escape is by showing that the alleged self-contradictions do not exist.[1]

§ 3. *Relations and Relatedness.*—Mr. Bradley sums up the result of his dialectic as follows: "Relation presupposes quality, and quality relation. Each can be something, neither with nor apart from the other; and the vicious circle in which they turn is not the truth about reality."

Before proceeding to examine these propositions it is necessary to point out a general defect in Mr. Bradley's analysis of relational complexity. He apparently recognises in such a complex only a relation on the one hand and on the other its terms considered as having each a certain quality distinct from their relation. Now, besides the relation and the quality of the terms, we must, to be perfectly accurate, recognise as a third item essential to the relational unity the relatedness of the terms—the fact that they stand in this relation or that this relation holds between them. My hat, my head, and the relation of *on and under* taken collectively do not suffice to constitute the fact of my hat being on my head. All these may exist, at a given moment, and yet my hat might be on the peg and my head bare. We must add that my hat and my head are in this relation of "on and under", and we must specify in what manner each enters into it. This may appear a trifling subtlety. But it is certainly not so in view of the present question. This becomes evident if we turn to Mr. Bradley's note on p. 32 of *Appearance and Reality*. There he says: "The relation is not an adjective of one term, for if so it does not relate. Nor for the same reason is it an adjective of each term taken apart, for then again there is no relation between them." This holds good of relations: but it does not hold good of relatedness. The relation of "on and under"

[1] *Appearance and Reality*, 2nd ed. pp. 25, 26.

cannot be a predicate either of my hat or my head or of both together. But it may be truly said of both of them that they are related. Further, this general predicate has a specific difference for each of them. My hat is *on* my head, but my head is *under* my hat.

We may now consider the statement that relation and quality are nothing apart from each other. This statement I, of course, accept. But it is necessary to add comment and reservation. "Qualities are nothing without relations." This seems to me undeniable, and Mr. Bradley shows it to be undeniable. But why is it undeniable and what constitutes the force of Mr. Bradley's argument? I submit that the *nervus probandi* does not lie in the bare fact abstractly considered that qualities are qualities. It lies rather in the fact that the qualities are partial features within a whole—within the unity of the universe. As such each partial feature must be connected with other partial features entering into the constitution of the whole. Ignore the unity of the universe as including all difference and distinction and there is no argument left. Since, however, all distinction is distinction within the universe, whatever we distinguish must be connected.

But Mr. Bradley seems to me to make an unjustifiable assumption at this point. He tacitly takes it for granted that the connexion must be purely and exclusively relational in its character. Evidently I cannot admit this. I have argued that besides relation there is continuous connexion, and that all relations ultimately presuppose a continuity. I must therefore add a reservation to the statement that all distinguishable features of the universe are interrelated. I would rather say that all distinguishable features of the universe are interrelated, if and so far as they are not continuous.

On the inverse proposition that relations cannot have being without related terms, it is unnecessary to dwell. I am heartily at one with Mr. Bradley when he summarily dismisses the view that the whole nature of the terms can somehow be resolved into their relatedness or their relations. As he says, "nothings cannot be related", and the supposi-

tion that relations somehow make the terms on which they stand is "quite unintelligible".

§ 4. *Does relational thinking involve a vicious circle?*— We have now to examine the alleged "self-contradiction", which, according to Mr. Bradley, infects a relational way of thought. The contention is that relations and their terms presuppose each other so as to involve a vicious circle which leads to an endless regress. At this point I feel somewhat doubtful as to the exact nature of the argument. Is the mutual presupposition of itself assumed to constitute a vicious circle, or is the circle vicious only because it leads in a special way to an endless regress? In a sense there is an endless regress wherever there is a vicious circle. Two penniless persons propose to raise money by borrowing from each other. In order that Brown may borrow from Jones, Jones must possess money. But Jones can only possess it by first borrowing from Brown, who again can only possess it by first borrowing from Jones, and so on interminably. Here there is an endless regress with the peculiarity that none of the backward steps can find a foothold. This sort of regress, which would be interminable if it could take place at all, constitutes the essential nature of every vicious circle. But I am not sure that this is all Mr. Bradley means, or, at any rate, all that others may take him to mean, when he attempts to demonstrate an endless regress in the concept of relation. It seems possible to regard his argument for an endless regress as independent.

It will be safer, therefore, to begin by considering whether the mutual dependence of the constituents of a relational complex is in itself vicious. Now, it is certainly not true that all mutual dependence is to be condemned as illogical. Two penniless persons cannot raise money by borrowing from each other. But if Jones has five pounds, the penniless Brown may borrow. And yet there is a kind of circle in this case also. The borrowing on the part of Brown presupposes the independent existence of five pounds as the property of Jones, and on the other hand the five pounds owes its character of being a loan to the independent existence of Brown as a borrower. But there is

here no logical vice. For the mutual dependence is in different respects. The borrowing presupposes the independent existence of the five pounds as money belonging to Jones. But this existence of the five pounds does not presuppose the borrowing. Again, considered as being a loan, the five pounds does presuppose the borrowing. But the borrowing does not presuppose that money is already independently lent. On the contrary, if it were so, Brown could not borrow it. Mutual dependence yields a vicious circle only when it is of a certain kind. It does so only when the self-same feature A, which presupposes the independent being of B, is itself necessary to constitute the independent being of B.

Is this logical vice to be found in the structure of a relational complex, as such? We have to consider three distinct couples: (1) Qualities and relatedness; (2) qualities and relations; (3) relations and relatedness.

(1) Qualities cannot be unrelated, and the relatedness presupposes quality. There is here mutual dependence, but not, I think, in precisely the same respects. We have seen why qualities cannot be unrelated. It is because they are partial features within the unity of the universe. On the other hand relatedness presupposes quality merely as such. It does not presuppose as an independent fact that qualities are already partial features within a whole before they begin to be related. It no more presupposes this than the act of borrowing five pounds presupposes that the money is already independently lent before it is borrowed.

(2) Qualities depend on relations and relations on qualities. But the qualities depend on the relations only for their relatedness, and not for their quality *as such* in distinction from their relatedness. Only in respect of their relatedness do they presuppose the independent being of the relations, just as it is only in respect of being a loan that five pounds presupposes a borrowing. On the other hand the relations presuppose the independent being of the qualities as such. The independent being of their relatedness is not presupposed. It is unnecessary to assume that in order to constitute the relation the terms must already be independently related.

(3) Relation and relatedness are interdependent. The relation presupposes the relatedness as an adjective of the qualities. It is the relatedness as adjective which constitutes the qualities terms in the relation. On the other hand relatedness presupposes relation, not because it is adjective of the terms, but because it is an adjective of a special kind. The terms might have other predicates, but they could not stand in relation without a relation for them to stand in.

On the whole, then, a direct analysis of the constitution of a relational complex fails to show that the mutual dependence of its constituents involves a vicious circle.

§ 5. *Does relational thinking involve a vicious regress?* —Coming now to the alleged endless regress, I should like to say that, even if it were demonstrated, I should not regard it as necessarily implying the falsity or absurdity of the concept of relation, but only its inadequacy in the special sense I am attaching to that word. Only one kind of endless regress implies falsity and absurdity—the kind which is due to a vicious circle. The mark of this is that you are constantly forced to step backward and yet can never find a footing, as in the example of two penniless persons raising money by borrowing from each other. But there is another kind of endless regress in which you are constantly forced to step backwards but never fail to find a foothold. The infinite divisibility of space is an example of this regress which involves no self-contradiction. However, I do not find it necessary to press this point at present. For I do not see that the concept of relation does, in fact, involve the interminable series which Mr. Bradley pretends to discover in it. His argument is stated in the chapter on "Substance and Adjective", and again repeated in the chapter on "Relation and Quality". But in this last chapter there is a complication which I shall deal with separately. In its simple form the whole point of the argument is contained in the reiterated question, What connects the relation and its terms? And what gives edge to the question is that the relation as such is not an adjective or predicate of the terms. I reply, in the first place, that what connects the

terms with the relation is the relatedness. This is a common adjective both of the relation and the terms. We express the self-same fact when we say that a relation is of or between qualities, and when we say that the qualities are in the relation. But here, again, the importunate question emerges, What is the mediating link which joins the term to its relatedness? Are we not driven to posit other relations and other relatedness *ad infinitum*? I answer that there is no intermediate link, and that there is need for none. For the connexion is continuous, and has its ground in that ultimate continuity which is presupposed by all relational unity. I would add that Mr. Bradley scarcely seems to be justified by his own principles in pressing the demand for an intermediate link at this point. For he admits that necessary connexion as distinguished from brute conjunction satisfies the demands of thought. But he has himself shown that it is a necessity of thought that qualities should be related. It may be more or less of a brute conjunction that a certain quality enters into a certain relation.

But that is a different and irrelevant matter; at least, I think it irrelevant. Mr. Bradley, however, would certainly not admit this. The question of its relevancy is really of vital importance. But I must postpone treatment of it to another occasion, when I hope to deal with the theory of Predication.

We have not yet done with the endless regress. We have yet to examine a special form in which Mr. Bradley states his argument in this chapter. It consists in an attempt to show that the relation between terms must itself enter into the quality of the terms as distinguished from their relatedness. There must thus be a diversity in the quality as such which is inconsistent with its nature. "*Without* the use of a relation it is impossible to predicate this variety of *A*. And, on the other hand, *with* an internal relation *A's* unity disappears, and its contents are dissipated in an endless process of distinction." "Every quality in relation has in consequence a diversity within its own nature, and this diversity cannot be immediately asserted of the quality. Hence the quality must exchange its unity for an internal relation. But, thus set free, the diverse aspects, because each some-

thing in relation, must each be something also beyond. This diversity is fatal to the internal unity of each; and it demands a new relation, and so on without limit."[1]

This argument bewilders me, and I am not at all sure that I understand it. But when I make the attempt the following is what happens to me. First of all I am called on to recognise that the whole nature of a related term cannot consist in its relatedness. Besides this, the term must have a quality. So far there is no difficulty. My attention is now selectively fixed on the quality as such in distinction from its relatedness. The relatedness is treated by me as irrelevant, just because I have been invited to take into account only the quality as distinguished from its relatedness. Next I am called on to recognise that the quality after all is and must be related. And I am called on to recognise this while at the same time I am to persist in disregarding relatedness, and in considering the quality barely as such. It being assumed that I have accomplished this impossible feat, it is pointed out that I am now affirming relatedness of the bare quality as such, and therefore the relation must enter into the constitution of this quality abstractly considered. Hence there arises in it an inner diversity which leads to an endless regress. The whole of this argument seems to be vitiated by a confusion between ignoring and denying—between abstraction and hypostatising the abstract object. In considering the quality of a term apart from its relatedness, I do not for a moment consider it really to exist apart from its relatedness. I do not for a moment deny the relatedness. I may deliberately treat it as irrelevant, but in the very act of treating it as irrelevant I recognise its existence. Whenever the question is raised I undo my abstraction and reaffirm what I never meant to deny.

It seems to me that by reasoning similar to Mr. Bradley's I could prove that my own head contains the rest of my body. For certainly my head can be considered apart from the rest of my body without considering it *to be* apart from the rest of the body. I can consider it apart while remaining aware that it cannot exist apart. I can regard this connexion

[1] *Appearance and Reality*, p. 31.

as irrelevant, and yet find much to say concerning my head —much that would not be true of it, if in fact it were not connected with my body. Now my head, thus considered apart, is none the less in fact joined to a trunk and limbs. But since it is considered apart, the trunk and limbs to which it originally belonged are logically severed from it. Hence it is a logical necessity to supply it with a new trunk and limbs, and if we are to avoid a repetition of the previous argument, these must fall inside the head itself. But this, again, is of no avail; for the head as such cannot combine this internal diversity. It is still capable of being considered apart from the body which is supposed to be inside it, and so there is an internal principle of fissure which conducts to no end.

Perhaps this is a mere parody of Mr. Bradley's meaning. But, on the other hand, it may not be so. For the intricacies of dialectical reasoning are sufficient to cause even a consummate master in this line to trip now and then. In any case, if I have misunderstood, I am anxious to know where and how. And I hope that what I have said, both on this last point and on others, may give me a chance of enlightenment from those who understand better.

X

BRADLEY'S THEORY OF JUDGEMENT

Introductory.—It would, I presume, be generally admitted, that all predication has for ultimate subject something concrete. But it seems a gigantic paradox to maintain that there is only one thing which is concrete in the sense required. Now it is just this paradox which forms the most essential feature of Mr. Bradley's theory of judgement, and it is just this paradox which constitutes the indispensable basis and presupposition of his whole philosophy.

In examining his views I shall refer especially to the first, and in a less degree to the second, chapter of the *Logic*. Both these chapters contain assertions which he would not now defend. But I shall endeavour to confine my criticism chiefly to those essential points which he does and must abide by.

§ 1. *Definition of Concreteness.*—With a view to clearness, I must here attempt to say what I mean, and what, I take it, is ordinarily meant by the term *concrete*. What is concrete is particular. But we cannot affirm that whatever is particular is concrete. The roundness of this or that orange, as it exists in the orange, is particular. But it is not concrete. It is not concrete, for the reason that its particularity is derivative. It is particularised not only for our knowledge, but in fact, by its being a partial feature of the particular orange. If we disregard what is involved in its existence in the particular orange, we immediately think of it as an abstract universal which cannot exist without being particularised. On the contrary, the orange is ordinarily regarded as particular in its own right. Doubtless it stands in manifold relations to other particulars, and such relatedness

essentially determines its special nature. But such relatedness is not generally supposed to give it particular existence. Both the orange and the table on which it lies are for the plain man particulars in their own right—in other words, they are both concretes. And it is only because they are both concretes that they can stand in that particular relation which we express or imply by saying that "the orange is lying on the table". The mutual relatedness distinctive of concrete existence presupposes their particularity, and therefore cannot logically constitute it. Concreteness, then, is underived particularity. In order to show that anything is not concrete, it is not sufficient to show that its special nature is determined by relations to other things. It must be shown that it owes its *particularity* to such relations, and that they do not, on the contrary, presuppose its particularity. It must be shown that it is only particularised as an adjective of something else. What Bradley, Spinoza, and Hegel try to show is that everything is ultimately particularised only as an adjective of the absolute. There is for them only one concrete. On the other hand, Aristotle, Leibniz, and Herbart agree with common sense in holding that there is a plurality of concretes. In this I follow them.

§ 2. *Ideas and Signs.*—Mr. Bradley begins with the thesis that there cannot be "judgement proper without ideas",[1] and he proceeds to affirm that all ideas are symbols or signs, and must be recognised as such by the person judging. If we inquire what is a symbol or sign, he provides us with a precise answer. A sign or symbol is "any fact that has a meaning, and meaning consists of a part of the content (original or acquired),[2] cut off, fixed by the mind, and considered apart from the existence of the sign."[3] As Mr. Bradley now no longer admits the possibility of "floating ideas", we must, in spite of the note to page 4, add that the content of the sign is not only cut loose from its existence, but also "referred away to another real subject". The term "con-

[1] *Logic*, 2nd ed. Vol. i. p. 2.

[2] I cannot discover what this reservation means. I have consulted Mr. Bradley himself without result. He assures me, however, that it is of no importance.

[3] *Logic*, 2nd ed. Vol. i. p. 4.

tent" stands for the nature of anything as distinguished from its existence.

If we examine this definition closely, we soon see that however well it may apply to the special case of ideas, it is not applicable to other signs. It is not true that whenever we use a sign, the content of the sign is thought of as qualifying the thing signified. When a forget-me-not is regarded by me as a sign of faithfulness in love, I do not mentally qualify faithfulness in love as being blue, or having stamens and a corolla. Yet Mr. Bradley, when he wrote the *Logic*, regarded such cases as coming within the scope of his definition. I submit that they evidently fall outside it. It is clear that so far as the definition holds good at all, it holds good only of signs which owe their significance to their likeness to the thing signified. But even here there is a difficulty. In regarding a handful of wheat as a sample of a sackful, I undoubtedly regard the qualities of the wheat in my hand as also belonging to the wheat in the sack. But I do not, in any intelligible sense, mentally cut loose these qualities from their existence in the sample before me. If I did not recognise the qualities as existing in the sample, it could not represent for me the rest of the wheat. Finally, it is very hard to accept the statement that only the content of signs can be significant, and not also their existence. When an engine-driver sees a danger-signal on the line, the actual existence of the signal at the time has surely a meaning for him. It indicates a correspondingly existent danger which a merely imagined or supposed signal would not indicate.

If ideas satisfy Mr. Bradley's definition of a sign, it is plain that they form an altogether peculiar species of signs. Indeed, they must differ so much from other signs that it may well be doubted whether we ought to apply the term *sign* to them at all.

§ 3. *Logical and Psychical Idea.*—There is, however, no doubt that the definition of a sign does agree most rigorously with Mr. Bradley's own account of ideas. Indeed, we have only to take one more point into account in order to transform it into a complete definition of what constitutes

an idea according to Mr. Bradley. We have only to consider the kind of existence which, according to him, belongs to the signs used when we have ideas, or, in other words, make judgements. The sign exists as psychic fact. It exists as an immediate experience of the person judging at the time when he judges. It must be an immediate experience, in the same sense as a toothache or hunger, if and so far as they are actually being felt. The content of the idea is merely a partial content of this psychical fact divorced from its psychical existence. The psychical fact Mr. Bradley calls a psychical idea, in distinction from the logical idea with which he is alone concerned. This terminology seems to me unfortunate and misleading. It implies that meaning can be in no sense a psychical fact. Now, if the term *meaning* stands for what is meant, this may be admitted; but the act or process of meaning this or that is a psychical fact, and can be nothing else. Further, this act or process is essential to ideas even from a psychological point of view. A psychical idea, in Mr. Bradley's sense, is, as he himself points out, not an idea of anything. This being so, it cannot be regarded, even by the psychologist, as being an idea at all. To have an idea is to think of something as so-and-so qualified. Both for logic and psychology the idea is the qualification by which the thing thought of is determined for the thinker. The difference between the points of view from which the logician and the psychologist respectively regard ideas need not be discussed here.

§ 4. *Essential Points of the Theory.*—We are now in a position to state the leading points in Mr. Bradley's theory of judgement:

(1) According to this theory the entire content of every idea is also a content of immediate experience[1] at the time

[1] Strictly speaking, the qualification, "immediate", is unnecessary, and may very well mislead. There is no difference between my experience, in the strict sense, and my "immediate" experience. When I now think of the felt pain of yesterday's toothache, this pain, though it is now thought of, is not now an experience of mine at all. It was so yesterday. If we choose to say that yesterday's toothache is now a mediate experience of mine, we ought clearly to recognise that we are using the term "experience" in a generically different sense from that which attaches to it in speaking of "immediate" experience. We mean merely that it is something we are thinking of, not

of judging. If it were not so, it could not be used to determine for thought the subject concerning which we judge. Thus, whenever we think of or apprehend anything as having a certain qualification, the characters which we ascribe to it are wholly contained within our own psychical state at the moment. From this point of view "no idea", as Mr. Bradley himself says, "is anything but just what it means".[1] The partial content of psychical existence which is used as an ideal symbol must be simply identical with what it signifies. Regarded in this light, the actual existent psychical state which is supposed to serve as a sign may appropriately be called an "image". For it contains a duplicate of its own meaning, as an image in a mirror is a duplicate of the object it reflects. Hence we find Mr. Bradley freely using the terms image and imagery without

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something we are feeling. The distinction is as great as that between a "wire", in the sense of a telegraphic despatch, and a wire as it stretches from one telegraph post to another.

If there is necessarily some quasi-cognitive awareness attaching to the mere existence of a feeling, yet this awareness must be distinguished from the content of which we are aware; for the awareness is present both in pleasure and pain, and both in anger and fear, whereas the content varies. We may affirm that the awareness and the content are inseparable abstract aspects of the relatively concrete feeling. But we must none the less distinguish them. And the content, as well as the awareness, is an experience of the person who feels—his *immediate* experience, if we choose to call it so. It is an object inasmuch as it is something he knows about; but what is thus known may, in its own nature, be either subjective or objective. What we immediately experience in desiring or being pleased is a subjective state having for its object what we desire or are pleased about. In sensation what we immediately experience is objective; for a sensum is not a knowing or a way of being interested in something; it is something which we may know and be interested in. The mode of our awareness of it is radically different from that of our present awareness of yesterday's pain. Yesterday's pain is separate in existence from our present cognition of it. The present cognition is our experience, not that which we cognise. But that awareness of present pain which is supposed to be involved in the bare fact that it is felt, is not separable in existence from the *present* feeling.

Further, I would point out that what is my experience does not cease to be so because I cognise it, and it does not cease to be *immediate* because I cognise it. I may be actually feeling angry, and at the same time judging that I feel angry. Similarly, I may judge, and at the same time judge that I am judging—*e.g.* when I purposely give an example of the process of judgement. Feeling and judging no more cease to be immediately experienced merely because they are also cognised, than the moon ceases to be the moon simply because someone thinks of it.

[1] *Appearance and Reality*, p. 6.

special explanation. "The imagery", he says, "is a sign, and the meaning is but one part of the whole which is divorced from the rest and from its existence."[1]

(2) A second point of Mr. Bradley's theory is that the partial content of our immediate experience which is used as an idea, is *eo ipso* "cut loose", "alienated", "divorced", or "prescinded" from its existence as a feature of our psychical state. In judgement it is indeed treated as the qualification of a concrete existence. But this concrete existence is always and necessarily something other than the immediate experience from which it is extracted. In becoming a logical idea, it becomes a "wandering adjective". Setting aside the cloud of metaphor which is apt to envelop Mr. Bradley's meaning in brilliant obscurity, what does this really involve? In plain language, it affirms that the partial features of immediate experience which are used as ideas in judgement are never themselves apprehended as being features of the psychical fact in its immediacy. Here there is a marked contrast between Mr. Bradley's "ideas" and other signs. When in other cases I use one thing as the sign of another, I have already an idea of the thing which fulfils for me the function of a sign. It is already the subject of judgements with determinate predicates. Otherwise I could not possibly use it as a symbol of anything else. But of necessity this cannot hold good of the psychical fact which constitutes the existence of the sign used in judgement. We cannot suppose that we have already an idea of this without a vicious circle. We should have to say that an idea is the qualification of something else by an idea of psychical fact. Mr. Bradley certainly cannot be charged with any such absurdity. For him the very essence of predication is the divorce of a partial content of psychical fact from its psychical existence, and its reference to some other existence. There is no place anywhere in the process for an idea of the psychical fact in its immediacy.

A third and most vital point of Mr. Bradley's doctrine emerges when we press the question, What are the ultimate subjects to which predicates are attached in judgement—

[1] *Appearance and Reality*, p. 12.

wherein do the wandering adjectives find a home? The answer is already logically implied in the very conception of an ultimate subject taken in conjunction with Mr. Bradley's doctrine of ideas. An ultimate subject must be a concrete existence, containing as part of its concrete nature those features which are ascribed to it in judgement, so far as the judgement is true. From this definition, taken in connexion with the general theory of judgement, there follows of necessity a most important and startling consequence. There can be for us only one ultimate subject of predication —the absolute whole of being. For an ultimate subject is only determinable in thought through its ideal predicates: and these by their definition are all abstract universals— contents cut loose from their existence. However complex they may become, they must still remain complex generalities. But if an ultimate subject is to be determined for our thought as one concrete individual among others, it can only be so by these abstractly universal qualifications, and this is for ever impossible. Thus the only concrete being which can exist for us is the one concrete which is presupposed in all predication—which is needed to individualise the abstract generality of all possible predicates. Apart from the process of judgement this ultimate subject is absolutely indeterminate. It is a mere *that* without a *what*. It is just Hegel's category of pure being indistinguishable from pure non-being. And this distinctionless unity can never become pluralised for us. We can never say, "Lo, here is an ultimate subject", or "Lo, it is there". It is everywhere or nowhere.

Hence follows Mr. Bradley's ultimate test of truth. If a predicate is not fitted to be a predicate of the absolute as such, it is so far false. For it must be a predicate of some concrete being. But the only concrete being is the absolute.

§ 5. *Criticism.*—Turning, now, to criticism. I propose to join issue on each of the three points which I have indicated as vital in Mr. Bradley's theory:

(1) First, Mr. Bradley affirms that whenever we apprehend or think of anything as having a certain qualification, that qualification is always in its entirety present as a

content of his own psychical existence at the time. Now, under a reservation to be discussed later, I am prepared to maintain not merely the contradictory but the contrary of this proposition. I am prepared to maintain that, so far as the subject of judgement is other than our own immediate experience, it is always determined for thought by a qualification which is not a content of our own immediate experience. For present purposes, however, it is enough to show that this is sometimes the case.

The instances which appear, at first sight, most aptly to illustrate Mr. Bradley's doctrines are those in which the vehicle of thought is mental imagery in the strict sense—*i.e.*, revivals of sensible qualities and relations. Let us consider especially visual imagery. So far as our thought merely refers to the visible appearance of a thing not actually seen, the only content of immediate experience which can be detached from its existence and used as a predicate is the content of a mental picture. On the other hand, what we normally think of is the thing as it actually has been seen, or will be seen, or may be seen with the bodily eye. The subject of judgement is, therefore, ideally determined by characters which do not belong to the psychical image. Our meaning somehow includes those distinctive characters of actual sensation which are absent from our immediate experience at the time. If we were thinking of the thing, not as actually seen, but as we had mentally pictured it on some previous occasion, the visual image might be virtually the same. But our specific meaning would be essentially different.

I admit, of course, that when we use a visual image in judgement, a content of the image is also part of our meaning. But where the reference is to actual sensation, we could not mean this, unless we meant more than this. I could not ascribe to a horse as actually seen features belonging to a mere mental picture unless I thought of the horse as actually seen and not merely imaged.

Coming to details, we find this view corroborated at every point. I mentally picture the face of a friend. Not being a very good visualiser I get no distinct view of the

face as a whole, but only a series of fluctuating and fragmentary glimpses, now of this part and now of that. Yet what I mean throughout—what I have an idea of—is the visible appearance of the face as a whole, as I might see it with the bodily eye. The partial glimpses are apprehended by me as being partial—as being fragments of a certain specific visual whole. The fragmentary contents of the fluctuating image do indeed qualify the whole face. But they can only do so on condition that I think of the whole as such—and the whole as such is not imaged.

We reach the same result if we consider the inaccuracy rather than the fragmentariness of images. I am thinking, let us say, of a perfectly straight line. I may use, for the purpose, either an image or a percept of a line which as imaged or perceived deviates sensibly from straightness. I succeed in meaning what I do mean by regarding the line thought of as being without all such deviations from straightness as belong to the merely imaged line. It may be said that this relation of otherness falls within the content of immediate experience. But even if I admit this, I must still insist that what is ideally represented is not merely the specific relation of otherness, but that which is required to satisfy this relation. As so qualified it necessarily falls outside the content of immediate experience. It is essentially determined for thought as *not* being qualified by the immediately experienced content.

There are some few persons who have virtually no visual imagery at all. But they are not for that reason incapable of ideally representing things as seen when they do not actually see them. Undoubtedly in doing so they use certain contents of immediate experience, and in particular revivals of kinæsthetic sensations connected with the movements of the eyes. But what they have an idea of is visual experience as such. It is not something which is merely invested with qualifications drawn from the content of motor and tactual imagery. It is determined for thought as other than the contents of such immediate experiences, and as standing in certain specific relations to them.

Turning from the thought which uses mental imagery

to judgements directly connected with actual perception, we find that here also meaning is not always, and perhaps is never, merely coincident with any content of existent psychical fact. I apprehend a billiard ball lying before my eyes as being red. In doing so I qualify it by a partial content of a visual sensation which I am experiencing at the moment. But the predicate *red*, as a quality of the billiard ball, is very far from being merely this or any other content of my immediate experience. It includes a special relatedness to other characters of the object which is no mere content of my psychical state at the time. To develop this point at length would carry us too far. But it seems sufficient to point out that the sensible quality, as I affirm it, involves what Mill would call a permanent possibility of sensation. How can a possibility, as such, be part of the content of immediate experience? The immediate experience is actual or nothing. Again, let us take the case of extension as a predicate of bodies. Mr. Bradley has written an article to show that psychical states are extended. From his point of view it is absolutely necessary that they should be so. He himself recognises the necessity as an immediate consequence of the proposition that, so far as regards their content, ideas must be what they mean. The position of those persons who accept the general doctrine, and yet boggle at the application of it, seems to me ridiculously inconsistent. Further, as regards the question of fact, I am in a great measure in agreement with Mr. Bradley. Visual and tactual sensations are psychical facts—immediate experiences. And certainly visual and tactual sensations have an extensive character. I also agree that, apart from this, we could never become aware of external objects as extended. But I am compelled to deny that the extension of physical things, as we apprehend it, is ever quite the same in nature as this, or any other, content of immediate experience. When I apprehend the extension of a physical thing I usually apprehend it as having a determinate size and figure. Now it is also true that my visual or tactual sensations and images have magnitude and figure. But their magnitude and figure is different not only in existence but

in content from those of the physical thing as apprehended by me. I see a pen close to me, and a lamp-post in the distance. I judge the lamp-post to be bigger than the pen. But the visual sensations which I use in apprehending the size of the pen are far more extensive than those which I use in apprehending the size of the lamp-post. In general our judgement of physical magnitude remains fixed within wide limits independently of very great fluctuation in the extent of the corresponding visual sensations. Nor is the case essentially altered if we turn to tactual experience. The extensiveness of tactual sensation varies in amount with the locality of the skin stimulated. The same holds good of kinæsthetic sensation. The quantity of joint, tendon, and muscle sensation will differ according as we explore an object merely by a movement of the fingers, or by a movement of the whole hand on the wrist-joint, or, again, of the arm up to the elbow, or by varying combinations of such movements.

Berkeley has pointed out that visual extension and tactual extension are so far disparate in character that we cannot judge a given quantum of the one to be equal to, or greater, or less than a given quantum of the other. But there are not for us two correspondingly distinct magnitudes of the same physical thing. The spatial extension of a material body is thought as single, and it is not thought of as being either distinctively visible or distinctively tangible. It is determined for us as that which is required to satisfy certain relations. But there is no adjective merely drawn from the content of our immediate experience which can fulfil this condition.

I have yet to refer to another group of cases, which seem even harder to reconcile with Mr. Bradley's theory. There are instances in which the specific nature of an object of thought as such does not seem to correspond even partially to any assignable content of our psychical state at the moment. The leading example is the use of words in silent thought or in actual speech. Many of us habitually think without using any sensory images or percepts except the verbal. For instance, in composing this paper I myself

have scarcely used any other. Now it is, of course, sheer nonsense to say that the specific nature of what we think of when we thus think in words is constituted by partial features of the content of the words themselves considered as auditory-motor or visual-motor complexes. I have elsewhere[1] maintained that, besides the verbal images or percepts, there are connected with these other peculiar modifications of our psychical state which cannot properly be called images. Each word has a distinctive meaning, because, owing to its preformed associations and its context, it modifies immediate experience in a distinctive way which does not seem capable of further analysis. But I do not see how it can possibly be maintained that what we think of is even partially determined for our thought as being in nature identical with these peculiar contents of immediate experience. On the contrary, we must regard the word and its psychic "fringe" or "halo" as constituting together the sign of something specifically distinct from them, not only in existence, but in nature. What we think of is determined for thought as that which is related in a certain way to such signs. And the relation just is that of sign to something signified. What we think of is thought of as that for which the word with its psychic fringe or halo stands. The subject is one which I have often discussed before, but always with a tormenting sense of confusion and inadequacy. I feel that my present statement rids my own mind of an intolerable burden. It would be easy to go on from now till doomsday multiplying illustrations of my general position. Probably my overwhelming sense of the importance of the point has already led me to try the reader's patience unduly. I shall therefore conclude with a general challenge to my opponents to produce a negative instance. I challenge them to produce a judgement in which there is reference to existence beyond immediate experience, where the whole content of thought is merely coincident with some content of immediate experience.

I would also urge that the opposite view leads to consequences which cannot be reconciled with admitted facts

[1] *Analytic Psychology*, Vol. i. p. 92.

Reference to existence beyond immediate experience could not occur in the form in which it actually does occur if the entire content of judgement were always merely coincident with some content of immediate experience. Human beings who have not learned or do not accept the philosophy of Hegel or Mr. Bradley suppose that there are an indefinite number of distinct things concrete and individual in the sense required to constitute them ultimate subjects of predication. When the man in the street affirms that a certain cow has a crumpled horn, he would not admit that he is affirming, however indirectly, that the absolute has a crumpled horn, or that his statement must be partially false because as it stands it cannot hold good of the absolute. On the other hand, when he affirms that it belongs to the general nature of cows to chew the cud, he would most readily admit that he is *eo ipso* affirming that this or that individual cow chews the cud. Now, I am not here concerned with the question whether the plain man is right or wrong in supposing that there are an indefinite plurality of ultimate subjects of predication. What I now desire to point out is, that even if he be under an illusion, the illusion itself is inexplicable on the lines of Mr. Bradley's theory. For Mr. Bradley the subject of judgement is initially an absolutely indeterminate *that* without any *what*—pure entity without quiddity. It becomes qualified only through the predicates which are attached to it. But these predicates are all of them partial contents of immediate experience alienated from their existence. As such they are all abstract. Indeed, this is the compelling motive of their application as predicates of something else. If they were not apprehended as being, through their abstractness, incapable of standing alone, they would not be regarded as adjectives of another substantive. As the process of predication advances, the predicates used become more and more complex. But from the nature of the case they still remain complex abstractions. They are still merely contents of immediate experience cut loose from their existence. And it still remains true, according to the theory, that the only reason of their being referred to something else as adjectives is that, owing to their recognised

abstractness, they cannot stand by themselves. Now, how can this progressive determination of the initially indeterminate subject by characters that are always abstract, ever come to produce even the appearance of a plurality of concretes as ultimate subjects of predication? Mr. Bradley seems to me to have proved too much. If his theory of predication were true, it would need only to be stated in order to be universally accepted. Nobody would suppose that any proposition could be ultimately true or false of anything but the absolute.

(2) We now turn to the second point in Mr. Bradley's theory of judgement. We find him constantly and strenuously asserting and reasserting that in all judgement the content of our immediate experience which is used as a predicate is cut loose from its existence as a feature of our psychical life. It is not at all apprehended as being a feature of our psychical state, but only as a qualification of something else. I find this doctrine extremely hard to understand. If we follow it out rigorously, it seems to commit logical suicide. The whole doctrine of ideas is founded on a recognised contrast between the content of an idea as predicate of an object and the same content as a feature of immediate experience. Now I fail to see, if the doctrine itself be accepted, how Mr. Bradley or anybody else could ever become aware of this contrast. I fail to see how there could be any sort of cognition of immediate experience at all, or of anything as a feature of it, or of the fact that it has features. Immediate experience, it must be noted, is in no sense a knowledge of itself. It does not characterise itself either as being mere feeling or as being this or that sort of feeling. Judgement is the essential form of knowledge. Without it there is nothing that can be called discernment, distinction, recognition, or awareness of connexion and relation. If, then, it is essential to judgement that the contents of immediate experience are cut loose, divorced, alienated, from their existence as contents of immediate experience—if judgement merely consists in ascribing these "wandering adjectives" to something else, —it does not seem possible that we should ever become able

to predicate anything concerning immediate experience, either truly or falsely. It does not seem possible that we could ever even have an idea of it as being immediate. Yet we find Mr. Bradley constantly making judgements about immediate experience as unhesitatingly as if it were a coal scuttle or an equilateral triangle. In the *Logic* he says of the idea, considered as psychical fact, that it exists "with particular qualities and relations. It has its speciality as an event in my mind. It is a hard individual, so unique that it not merely differs from all others but even from itself at subsequent moments."[1] Again, in chapter ix. of *Appearance and Reality*, we find the following statements: "At any time all that we suffer, do, and are, forms one psychical totality. It is experienced all together as a co-existing mass, not perceived as parted and joined by relations even of co-existence. It contains all relations and distinctions, and every ideal object that at the moment exists in the soul. It contains them, not specially as such, and with exclusive stress on their content as predicated, but directly as they are, and as they qualify the psychical 'that.' And, again, any part of this co-existence to which we attend can be viewed integrally as one feeling." Any part of this co-existence to which we attend! What does this mean? Does it imply that we can distinguish the part within the psychical whole, so as to apprehend it as being within this whole? If so, then there is certainly a judgement having for its subject existent psychical fact. But how is it possible to reconcile this with Mr. Bradley's own definition of judgement as excluding all reference to psychical fact as its subject—as consisting merely in using some partial content of psychical fact as a qualification of an existence which is not psychical. If we abide by this definition there is no possibility of having a cognisance of psychical fact at all. What Mr. Bradley says about psychical immediacy may be all true and instructive. But on his own theory he could not possibly know anything about it, or even suppose that he knew anything about it.

I can see no way out of this impasse, unless we discard the assumption that judgement cannot qualify psychical

[1] *Appearance and Reality*, p. 5.

fact in its immediacy. And this leads us to inquire on what ground the assumption is made. Mr. Bradley supplies two answers to this question. For the first I may refer to the following passage in *Appearance and Reality*: "The idea is not the same as fact, for in it existence and meaning are necessarily divorced. And the subject, again, is neither the mere 'what' of the predicate, nor is it any other mere 'what'. Nor even if it is proposed to take up a whole with both its aspects, and to predicate the ideal character of its own proper subject, will that proposal assist us. For, if the subject is the same as the predicate, why trouble oneself to judge? But if it is not the same, then what is it, and how is it different?"[1] To this I reply that, so far as judgement refers to psychical fact in its immediacy, the predicate is distinguished from the subject as part from whole. The subject is the inclusive unity of immediate experience which contains the partial feature predicated of it. Mr. Bradley's other answer simply consists in strenuous reiteration of the thesis that in all judgement something is qualified which is not psychical fact in its immediacy. With this thesis I myself am in emphatic agreement. But I fail to find any cogency in the inference which Mr. Bradley draws from it. It is one thing to say that my judgement always qualifies something other than my own immediate experience. It is quite another to say that it does not qualify my immediate experience at all. The position for which I contend is that any complete judgement does both coincidently. When Mr. Bradley says that in judging we "cut loose", "alienate", "divorce", "prescind", or "separate" psychical content from psychical existence, I would point out that these words are the merest metaphors. They are merely metaphorical expressions for what we more appropriately call "discerning", or "distinguishing." But what we discern or distinguish never does or can lose connexion for our thought with that from which or within which it is discerned or distinguished. Would not Mr. Bradley himself tell us that to distinguish is to unite? He must therefore be driven to maintain that his metaphors are more than mere metaphors.

[1] *Appearance and Reality*, p. 168.

He must maintain that "divorce" is more than discernment, and that it excludes the possibility of discernment. But such a contention seems irreconcilable with omnipresent fact. Doubtless in all judgement I somehow use partial contents of my immediate psychical existence in determining the nature of some other existence. But, in being so used, are they ever so isolated from their context or complement in immediate experience that in place of this context or complement there is for our thought mere blankness or nothingness? The question, I take it, answers itself.

In judging a piece of paper to be white, the visual sensations which I use are only a fragment of a mass of visual experience not so used. But the continuity of this fragment with the whole does not fall utterly outside the range of my thought at the time. The fragment is not "cut loose" from its context as it might be if I became afflicted with partial cortical blindness. The point is to me so plain that I shall not argue it further until I know what opponents may find to urge against it.

I must, however, add some words by way of explanation. In the first place, the total psychical fact is not apprehended in the same way as its partial feature. It is only so far apprehended as is necessarily implied in the discernment of parts within it. It is not itself discerned as a partial feature of a more comprehensive whole. We are not aware of it as circumscribed or bounded off. If we choose to confine the term object to what is demarcated in this way, then it cannot be said to be presented as an object. In the second place, the psychical reference in judgement, though it is invariably present, may be very subordinate and inconspicuous. It may be implicit, not explicit. In other words, though the psychical reference is necessarily included in the total judgement, yet our interest and attention in judging may be primarily and predominantly centred in something which falls outside the range of our immediate experience. Not only may this be so, but in fact it most frequently is so. Probably in the earlier stages of mental development it is always so. In the third place, we must avoid identifying psychical reference with what we call self-consciousness.

The consciousness of self is a complex product of mental development, and even in its simplest phases it always includes a reference beyond immediate experience. All that we are justified in affirming is that the primary psychical reference implicit in all judgement is the ultimate point of departure of the growth of self-consciousness, and that it always continues to be its essential basis and presupposition.

(3) We now come to the third, and perhaps the most interesting point in Bradley's theory of judgement. If this theory is accepted, it is for ever impossible for us to determine in thought any individual, as such, except one—the absolute whole of being. This alone is concrete in the sense required to constitute it an ultimate subject of predication. This alone is a substantive; whatever else we may distinguish in thought is merely its adjective.

So far as this contention is based upon the general doctrine of judgement we have already virtually disposed of it. In the first place, we have pointed out that in all judgement we are aware of psychical fact in its immediacy. Hence in all judgement we are aware of an individual existence which is not the universe. Mr. Bradley himself calls it a "hard individual". The only question that remains is whether we can determine in thought other individual existences as such. This would be, of course, impossible if our only means of determining what we think of consisted in qualifying it by contents of immediate experience cut loose from their existence. But we have tried to show that the object of thought is also determined by its *relatedness* to the content of immediate experience. It is apprehended as that which is required to satisfy a certain relation. Now, since we are aware of psychic fact in its immediacy, there can be no reason why an object should not be determined for thought by its relatedness to psychic fact in its immediacy. When this is so the object must be apprehended as individual, in the same sense as immediate experience is individual.

This is my general position abstractly formulated. The actual situations in which the individual is apprehended as such are just those described by Mr. Bradley himself as involving, in a peculiar sense, direct contact with reality.

When a man grasps a solid object in his hands, when he stamps on the ground, when he is wrestling for his life with an adversary, or when he is awaiting the fateful yes or no from the lips of his beloved, he is determining in thought individuals distinct from others and from the all-inclusive universe. In this respect those experiences are of primary importance in which motor activity finds itself variously conditioned in the attainment of its ends. And in spite of the scorn with which it is treated by Mr. Bradley and others, I must maintain that what is known as the experience of resisted effort has, from this point of view, an especial significance.

Having once attained the thought of individual existences in this direct way, it becomes possible to determine others in thought by their connexion with these. Other individuals are determined for thought as being in individualised relations to individuals already recognised as such. In general, if we set aside the primary awareness of psychic fact in its immediacy all individual existence is determined as such by its connexion with other individual existence.

§ 6. *Objections Considered.*—And, now that I have reached this point, I see advancing against me an overwhelming flood of hostile arguments. There are many which I can anticipate, and doubtless there are also many which I do not anticipate. I proceed to deal very briefly with some which I foresee as likely.

In the first place it may be urged that what I call an individual has no real claim to this title. Being admittedly only part of the universe, it must be related to other parts, and without such relatedness it would not be what it is. This objection would, indeed, be fatal if I began by admitting that the individual, as such, must be self-existent in the same sense as the absolute whole of being is self-existent. But to presuppose this is merely to beg the question at issue. An individual has all the self-existence I require if it is capable of being an ultimate subject of predication. It must be self-existent as compared with the partial features and aspects of its own nature, and it must not be a partial feature or aspect of the nature of anything else. Its

independence is merely that of a substantive in relation to its adjectives. It by no means follows that it cannot be related to other individuals, and have its nature determined by them and the relations in which they stand to it. Nor does it follow that it cannot have individual parts which, as Hobbes would say, are parts of *it*, and not parts of its nature, and are therefore not capable of being predicated of it. A pillar supports a roof. If there were no roof the pillar could not support it; if there were no pillar the roof could not be supported by it. But the roof is not therefore an adjective or partial feature of the nature of the pillar, or *vice versa*. You cannot in virtue of their relation say that the pillar is a roof, or that the roof is a pillar. Neither is the relatedness of either an adjective of the other. The pillar supports in relation to the roof, and the roof is supported in relation to the pillar. But the roof does not support, and the pillar is not supported—if we regard them only in their connexion with each other. Finally, the relation into which pillar and roof both enter is not an adjective of either of them. It falls outside the nature and existence of both. It falls within the whole of which both are parts. It is a predicate of this whole that it contains the relation as one of its partial features. Just as an individual may be related to others without compromising its distinctive independence, so it may comprehend within its unity parts which are themselves individual. Of course these parts cannot be its adjectives. They are parts of its existence, not of its nature. But, in fact, no one supposes otherwise. No one says that a tree is a leaf, or that a dog is its tail. What we can predicate is the relatedness of the whole to the individual part, in accordance with the special form of unity characteristic of the whole. We can say that the tree has a leaf growing on the extremity of its topmost branch, or that the dog is wagging its tail. Nor do I find any relevant difficulty in being compelled to assume that some individuals contain individual parts which no assignable number can finally exhaust. If, whatever number of parts is taken, the subdivision can still be made exhaustive, and does not make any difference to the unity and continuity of the whole

quantum, and if all the exhaustive subdivisions are quantitatively equivalent to each other, there seems to me no possibility of exhibiting at any point anything which can be properly called a contradiction or absurdity.

Another group of objections may be based on the principle that what is transient cannot be concrete. And this seems to destroy at once the individuality of present psychical fact in its immediacy. Now I admit that if the term transient be taken in a certain sense, what is transient is abstract. The complete fact of change has two aspects: (1) an enduring sameness of content, which taken by itself is abstract; (2) a continuous alternation of differences in the way of particular determinations of this abiding content. These differences, considered by themselves as what passes or is transient in the process, are also undoubtedly abstract. But in any actual change these two aspects of duration and transition are unified in a peculiar way. I do not mean that we can conceptually construct an idea of change merely by putting together in thought these abstract features. On the contrary, the experience of change is required to show us how they can be united. It is only within the completed whole of change that we distinguish them. And this whole it is that I take to be concrete. Further, every temporal subdivision of concrete change is itself concrete.

This suggests another difficulty. A real individual cannot, as such, be in continuous connexion with what is unreal. But present psychic fact is essentially a transition from the past which is no longer real to the future which is not yet real. I reply that in affirming anything to be no longer or not yet real, we do not deny that it is real at all. What we refer to is simply the time of its occurrence, not to its reality or unreality, its concreteness or abstractness, when it does occur. When we say that a future or past event is not real now, we simply mean that it is not taking place at the time when we are making the judgement. But so far as the judgement is true, it takes place at some other time related in a certain manner to the present.

Again, it will perhaps be said that psychic fact in its immediacy is so fleeting that we cannot have time to appre-

hend it before it is gone. My answer consists in a reference to the mode in which I suppose the psychic fact to be apprehended. We become aware of it only so far as we discern a partial feature within it. But this partial feature waits long enough to be discerned.

I must next defend myself against the sort of criticism which Mr. Bradley brings to bear on the analytic judgement of sense. For evidently what I call "psychic reference" is a pure case of this kind of judgement. "It is", says Mr. Bradley, "a very common and most ruinous superstition to suppose that analysis 'is no alteration.'"[1] Now, if "analysis" is taken to mean an actual or ideal separation or taking to pieces, I have no quarrel with this statement. But if what is meant is the discernment of a partial feature within a whole as being within this whole, then I must confess that I am very superstitious indeed. Still I admit that Mr. Bradley's contention would have some force as against me, if I maintained that the discernment of a feature of immediate experience makes no difference to the experience as it existed before the distinction was made. But this I do not hold, and I do not think that any defender of the analytic judgement of perception need hold it. The immediate experience referred to is the immediate experience when discernment of the partial feature is already present. Having disposed of this point, we come to the central principle of Mr. Bradley's argument, which is most clearly stated in Vol. I. p. 97 of the *Logic*. "The sensible phenomenon", he says, "is what it is, and is all that it is; and anything less than itself must surely be something else." The question is, "When I take in my judgement one fragment of the whole, have I got a right to predicate this of the real, and to assert 'It, *as it is*, is a fact of sense'?"[2] Of course, if Mr. Bradley means predication of the absolute when he speaks of predication of the real, it is useless to argue the point further at this stage. But if he means predicating of the sensible phenomenon a partial feature of it, it is difficult to see how he can find any cogency to his own argument.

[1] *Appearance and Reality*, p. 95.
[2] *Cf. Logic*, Bk. I. ch. ii. §§ 60-73.

If I say "this sound is shrill", I do not take a partial feature of the sound, and then merely identify the sound as a whole with this partial feature. If I say "this animal is a quadruped", I do not assert that its whole being consists in having four legs. If I wanted to say such things I should express myself differently. I should say "this sound is shrillness", or "this animal is quadrupedality". Whenever we judge at all, we not only predicate a partial feature, but we predicate it as partial. What we assert is its connectedness within the whole nature of the subject, in accordance with the characteristic form of unity distinctive of that subject. Mr. Bradley's criticism, it seems to me, is justified only in the case of a class of judgements which nobody makes, because everybody sees at once that they are false. Everybody sees that it must be false to say that an orange is rotundity, or that a fox is sagacity. If all analytic judgements of sense involved a like absurdity, there would be no need for Mr. Bradley, or anybody else, to exhibit this fact by an intricate argument.[1]

[1] Yet we have not altogether disposed of Mr. Bradley's case. He has yet another string to his bow. In the analytic judgement, besides the special feature discerned, there is always an unexplored remainder. According to Bradley, the unexplored remainder must so condition the nature of the special feature that this cannot be what it is apprehended as being. The principle of this argument, so far as I can understand it, is by no means self-evident. The principle seems to be that there cannot be in any sense or in any degree what we call a datum or a premise. The nature of the relatively unknown cannot be determined for us by the nature of what is already known. On the contrary, what we regard ourselves as knowing is wholly and utterly at the mercy of the relatively unknown. And the relatively unknown is entirely merciless. So long as we are at all ignorant, all our judgements must be false. I submit that this principle involves absolute scepticism and absolute empiricism—in the worst sense of the word *empiricism*. It is equivalent to denying the logical possibility of anything which can in any sense be called inference, or transition from the known to the unknown. I submit, also, that it has no real justification. All that we are justified in asserting is that, so far as a judgement involves presumptions as to the nature of what is relatively unknown which are not merely elicited from the data on which we proceed, the judgement may be falsified by acquisition of new data. But so far as a judgement is merely analytic, so far as it consists in discerning partial features within the whole of reality, it involves no such assumption. The real basis of Mr. Bradley's argument is his view of the nature of the one ultimate subject of all judgement. This must exclude all plurality, all relative independence, all relatedness of its partial features. Indeed, it cannot, in any ordinary sense, have partial features. Virtually it is not only a unity, but a perfectly simple unity. Hence all appearance of partial features within it must be mere appearance, and not truth. All discrimination is falsification.

Finally, I ought, perhaps, to say something of the direct argument by which Mr. Bradley apparently seeks to show that all ideas are merely abstract universals. This argument consists in a challenge to examine the content of any idea whatever. It is maintained that on examination we shall always find that the idea turns out to be in its intrinsic nature applicable to a possible plurality of instances. There is nothing in its intrinsic nature which confines it to a singular and unique subject. " 'That bough is broken', but so are many others, and we do not say which. 'This road leads to London' may be said just as well of a hundred other roads." From such considerations Mr. Bradley seems to infer that the only unique and singular subject which we can determine in thought is the absolute whole of being. Now I insist, as strongly as Mr. Bradley, that whenever we have an idea we think of a general qualification—of a qualification capable of existing in a plurality of instances. But I would point out that this mere generality never is, or can be, the entire content of our meaning. We cannot think of general characters without *eo ipso* thinking of them as exemplified in instances which are ultimately particular. In recognising that "this is a road" may be truly affirmed of a hundred roads, I must also think of the hundred roads, and recognise that in the long run these are, and must be, particular roads, and not mere generalities. To think of the abstract universal is of necessity to think of the particular also. Generality would not be generality at all if it were mere generality.

The only question which remains concerns the possibility of singling out any one particular instance as such. The typical ways in which we attempt to do so are by using such words as "this" or "that", or by pointing. Mr. Bradley insists that such signs cannot fulfil the function assigned them, because they have a generalised meaning. We can *point* to many things, and "this" or "that" are the most generally applicable of all words. This is, of course, true. But it by no means follows, because such signs have a general significance, or more accurately a general element of significance, that they do not also have a particularised

significance. We must distinguish general meaning and occasional meaning. The general meaning is that which is common to more than one possible application of a sign. The occasional meaning is determined by the context and circumstances under which it is actually being used on this or that occasion. So far as the determining circumstances are themselves particular, they are capable of particularising the meaning of the signs. Mr. Bradley's argument reminds me of a boyish joke. A boy calls out to another, "Where are you?" The answer is, "Here!" Which is met by "No, you are not here; you are there!" The meaning of the words "here" and "there" of course varies with the actual position of the speaker when he uses them. Hence the schoolboy dialectic. Of course, if the question be pressed how the circumstances under which a sign is used are themselves particularised, I must fall back on the psychical reference in judgement—on the concrete individuality of the psychical life of each of us.

§ 7. *Appearance and Reality.*—In conclusion, I would invite attention to an aspect of Mr. Bradley's philosophy which does not perhaps come strictly within the scope of this paper. Whatever is not fitted to be a predicate of the absolute he condemns as being *pro tanto* mere appearance. Now, this whole position seems inevitably to presuppose that the absolute does really appear. It seems futile and meaningless to explain this and that as being mere appearances if you regard the fact of appearance itself as being a mere appearance. Appearance must, therefore, be a predicate true of the absolute. But what does appearance in this sense ultimately mean? It can, I think, only consist in the fact that there are a plurality of finite centres of experience. Unless we presuppose this fundamental fact the whole conception of "mere appearance" loses all significance. There would be no one to whom anything could "merely appear". The fact itself is admitted by Mr. Bradley to be beyond the reach of explanation. "That experience should take place in finite centres, and should wear the form of finite 'thisness', is in the end inexplicable." But he sees in this no serious objection to his general theory. For "to be inexpli-

cable and to be incompatible are not the same thing." The plurality "exists in, and therefore must qualify, the whole. . . . Certainly in detail we do not know how the separation is overcome, and we cannot point to the product which is gained, in each case, by that resolution. But our ignorance here is no ground for rational opposition. Our principle assures us that the absolute is superior to partition, and in some way is perfected by it."[1]

Now, this seems to me very like an unconscious evasion of the real difficulty. It is proposed to treat the existence of finite centres of experience as mere appearance. But mere appearance, I presume, is always due to our partial apprehension of the one reality, and this again to our finitude. Thus it is a vicious circle to explain partial apprehension or finitude of experience as being itself mere appearance. There can be mere appearance only on condition that something appears, and this ultimately can only be the absolute. Unless the absolute really has appearances Mr. Bradley's whole position becomes untenable. But the fact that it appears at all is the same thing as the occurrence of experience in finite centres. When, therefore, we say that experience takes place in finite centres we state what is absolutely true.

It is further to be noted that if appearance, as such, is a true predicate of the absolute, what is true of appearance, as such, must also be true of the absolute. Thus, if there are degrees of appearance, there are degrees in which the absolute really does appear. In fact, Mr. Bradley calls them "degrees of reality". It would seem to follow that the conception of "degree" is fitted to be a predicate of the absolute. But would it not be just as easy to dispose of its claims as of those of other concepts examined by Mr. Bradley? The doctrine of degrees of reality involves the reality of Degrees. But the assumption of the reality of Degrees, honorary or otherwise, looks like an Academical prejudice.

[1] *Appearance and Reality*, p. 226.

XI

BRADLEY ON TRUTH AND FALSITY

§1. *Introductory.*—It is a well-known doctrine of the schoolmen that positive judgements concerning the nature of the absolute reality which they call God must always be partially false. They must be so, because they are attempts to represent in terms of finite experience what incomprehensibly transcends finite experience. On the other hand they saw no reason why other judgements should necessarily be infected with error. In Mr. Bradley we find something like inversion of this position. According to him there are cogent reasons for holding that all judgements concerning finite being are, as such, in varying degrees untrue. But this proposition could not be consistently asserted, if it were taken to include itself as one finite judgement among others; and the same holds of the grounds for maintaining it. Logical ruin ensues if either the judgement itself or the judgements on which it is based are capable of being partially false. Mr. Bradley remains consistent with himself inasmuch as he denies degrees of truth and falsity for propositions concerning the nature of Reality as a whole and what is directly implied in them.

He cannot mean that whatever is asserted in metaphysics is absolutely true, and he certainly does not intend to claim infallibility for his own system. Such dogmatism is entirely foreign to him. What is meant can only be that, if we accept a metaphysical proposition at all, we must accept it as absolutely true without any admixture of error. Hence it seems to follow, though Mr. Bradley does not say so, that if a metaphysical proposition is untrue at all it must be absolutely false without any admixture of truth. Truth about the absolute as such must be absolute truth and error

about the absolute must be absolute error. No degrees are possible.

It seems to me that this view places metaphysics in a desperate position. How can we ever assure ourselves that we have precisely hit the mark? But if we miss it we are, if anything, worse off than we should be if we never aimed at it at all.

In making an exception in favour of metaphysical truths Mr. Bradley is not initially inconsistent. On the contrary he is taking the only way of escape from self-contradiction. None the less, in examining the grounds which he assigns for regarding all finite judgements as more or less false, we are bound to keep in view the question whether or not these grounds are such as to apply also to the metaphysical truth which he regards as utterly true.

Before proceeding further, we must as a necessary first step attempt to determine what Mr. Bradley means or ought to mean by the mingling of partial truth with partial falsity.

§ 2. *What is meant by Degrees of Truth and Error?*—According to Formal Logic, a proposition and its contradictory cannot both be true and cannot both be false. From this point of view, there is no possibility of a more or less of truth or error. But we cannot dispose of Mr. Bradley in this cheap and easy way; for he may define what he means by partial truth and error without violating the laws of contradiction and excluded middle.

It is essential to his position to deny "infallible truths". He insists that, however certain we may be and however we may come by our certainty, in all finite judgements we run a risk of being, in some way, mistaken. But this is not Mr. Bradley's main thesis. Taken by itself, it would be quite consistent with the view that some or most of our ordinary assertions and denials contain no error. If we had no secure means of distinguishing these from the others, we should still run a risk of error in any given judgement.

His central doctrine is not that there is always a chance of our being more or less wrong; it is rather that we have no possible chance of being entirely right or entirely wrong.

What is needed is such a definition of partial truth and falsity as will make this position intelligible.

The most natural course is to regard a judgement as a complex unity, including partial judgements either asserted or tacitly presupposed in making it. If any one of these is denied the proposition including it is denied as a whole, whether the others are taken to be true or false. Thus *A is not B* contradicts *A is B* inasmuch as it asserts the truth of some one or more of many propositions which are severally incompatible with *A is B*. Then *A is B*, supposing it to be truly contradicted, will be more or less false according to the number and relative importance of the propositions which are incompatible with it. Under the head of relative importance, Mr. Schiller seems to me to be quite right in insisting on relevance to the special interest of the subject in making or hearing a statement. There are many alternative ways in which it may be false that the sun rises in the East. It may not be the East in which it rises; what we call the sun may differ in some relevant way from our conception of it; earth and sun may not be in motion relatively to each other at all; it may be the earth which moves and not the sun; it may be that time and space and consequently motion are unreal. If all propositions of this sort are true, it is entirely false that the sun rises in the East. If only one or some of them are true, it is partially true and partially erroneous. It is more erroneous if neither earth nor sun move relatively to each other than it would be if the earth moves and not the sun. If our interest is exclusively in practical life and science, the unreality of space and time would make hardly any difference; if our interest is metaphysical it would involve the most thoroughgoing error. Whether such an account of degrees of truth and falsity is tenable, I need not now consider.[1] I refer to it only to point out that Mr. Bradley does not and cannot accept it.

He cannot accept it, because according to him no finite judgements whatever can be completely free from error. However far we may push regressive analysis there is no possibility of reaching any which are entirely true; and this

[1] Properly developed, I should say that it is defensible.

is so not because of our inability to formulate them, but rather because there are, and can be, none.

We have still then to determine what Mr. Bradley ultimately means by partial truth and partial falsity. There is no pure truth except truth which is true of the universe or being as a whole—the truth which metaphysics seeks to discover. Metaphysicians vary in their views of what this metaphysical truth is; we have here only Mr. Bradley's own view to consider. According to him Reality as a whole and the truth about it is indefinitely presupposed or indefinitely referred to in all ordinary judgements. When we say *This rose is red*, our full meaning, explicitly recognised, is *The Universe is such that this rose is red.* Metaphysics directly inquires into the nature of the one reality which is thus implied in all knowledge of the finite beings which it somehow includes. So far as the metaphysical adventure succeeds it reaches propositions which if true at all are quite free from error. As implicitly asserting these truths, all finite judgements are partially true. But they must also be partially false. They must be so, because, as Mr. Bradley holds, what we assert concerning finite beings, taken as it stands, turns out in the long run to be incompatible with the metaphysical truth which such judgements implicitly presuppose.

If this were all, however, our ordinary judgements might all be equally true and equally false—false as contradicting metaphysics, in other respects true. We have yet to account for Mr. Bradley's all-important distinction of *degrees* of truth and falsity, whereby he makes peace with common sense and science. One proposition, according to him, may be truer than another; and the difference may be such that "for working purposes", and "in a certain interest", we may be virtually justified in regarding one as utterly true and the other as utterly false. "If you ask me", he says, "whether there is truth in the statement that $2+2=5$, I answer that . . . I believe this to be sheer error. The world of mathematics, that is, I understand to rest on certain conditions, and under these conditions there is within mathematics pure truth and sheer error. It is only when you

pass (to speak in general) beyond a special science, and it is only when you ask whether the very conditions of that science are absolutely true and real, that you are forced to reject this absolute view."[1]

Two questions now emerge: (1) What is meant by degrees of truth? (2) How in practice can we distinguish them?

The ideal measure according to which finite judgements are more or less true or false is found in the conception of a perfect experience. In a perfect experience the entire universe of being would be revealed at once in its unity and in all the fullness of its content. Finite judgements are more or less false or true according as they would require more or less correction and transformation in order to be included in a perfect experience. All require more or less correction, and therefore all are more or less false. But none can be absolutely false; for, as Mr. Bradley holds with Parmenides, absolute non-being can neither be nor be thought.[2]

Metaphysics, though it is in principle capable of being quite free from error, is none the less inevitably abstract and schematic. It shows in general what "*may* be and *must* be and therefore *is*"; but it falls immeasurably short of showing *how* in *detail* it is. This could only be revealed to perfect experience. But, though metaphysics may show that there must be perfect experience, and that it alone is the ultimate measure of truth and falsity, it does not and cannot give us the perfect experience itself. Metaphysical principles cannot therefore, taken abstractedly by themselves, determine the degree of truth which belongs to any finite judgement. How far and in what way is this possible at all?

In one sense, it is impossible, as I presume Mr. Bradley would agree. We have no means of specifying adequately what amount of correction a finite judgement requires in order to be included in the complete truth which includes all truth without error. We can start only from where we are; not from a perfect, but from our own imperfect, ex-

[1] *Essays on Truth and Reality*, p. 206.

[2] Except as a problem that can have no solution, a question that can have no answer.

perience. So limited, we can yet make relative and comparative distinctions. We may be justified in asserting that one proposition is truer or falser than another, though we cannot determine how far either of them falls short of complete truth. We can do this by reinterpreting metaphysically the ordinary procedure of common sense and science. In the development of ordinary knowledge, we are constantly discovering error and correcting it by substituting what we take to be the truth. This procedure is, according to Bradley, legitimate for working purposes; all that metaphysics demands is that we shall say *truer* and *falser*, instead of *true* and *false*. Further, when ordinarily we recognise only degrees of adequacy or completeness, Mr. Bradley as a metaphysician speaks of a scale of truth and error. A child asserts that a stone falls; but the fall depends on whatever is true in Newton's or Einstein's theory of gravitation or any other theory which may improve on theirs. Being ignorant of this context of conditions, the child must regard the fall of the stone as real by itself apart from them. Hence his judgement is relatively false, as compared with Newton's or Einstein's, *i.e.* it is further removed from the truth as it would be for a perfect experience. Here the general principle on which Mr. Bradley proceeds is that a judgement is false if and so far as it fails to specify completely the conditions of what is asserted in it. With this doctrine I shall have to deal at some length. But before taking up this point, I shall first have to consider another and more fundamental kind of error, which according to Bradley is involved in the very nature of finite judgement.

This sort of error is not even relatively and comparatively capable of being positively corrected and explained within the range of common sense and science. There are certain comprehensive assumptions, which are not corrigible in this way, because, though they are really false, they are ultimately presupposed in all ordinary thinking. The spatial-temporal order, for instance, is and must be taken for granted as ultimate by common sense and science; yet the spatial-temporal as such cannot, according to Mr. Bradley, be real. It cannot be so, because, on examination,

it turns out to be "riddled with contradictions". He treats in like manner all the working assumptions which, for ordinary as distinguished from metaphysical thinking, are beyond the reach of doubt. All, when closely scrutinised, are found to be internally incoherent, and must, *pro tanto*, be false. He endeavours to demonstrate internal discrepancy for each of them in turn by special arguments. I cannot here follow him in these detailed discussions. I am rather concerned with a general principle which underlies the special arguments, and is, in my opinion, necessary to give them apparent cogency. I refer to Mr. Bradley's view of the nature of all finite judgements, as involving divorce of content from existence, the "that" from the "what", "ideas" from "immediate experience". The severance is involved in all relational thinking, and most fundamentally in the relation of subject and predicate, the predicate as idea being severed from the subject as real.

§ 3. *Bradley's Argument from his Doctrine of Predicates as "Ideas".*—According to Bradley, it is an ultimate contradiction that two really distinct subjects, A and B, should have common predicates. In asserting of A the quality p, we mean that p is one with the existence of A; its existence is integrally included in the existence of A; if we think away the existence of p, and other qualities of A, we *eo ipso* think away the existence of A which they qualify. But B is supposed to have an existence of its own, quite distinct from that of A. Hence the same quality p, which is one with the existence of A, cannot without contradiction be taken also to be one with the existence of B. Yet all ordinary thought is pervaded with this contradiction.

We cannot, it would seem, get rid of it by denying that there are common characters. Generality, either explicitly recognised or implicitly "used", is indispensably necessary to common sense and science, to all ordinary human thought; finite judgements are impossible unless in thought we apprehend the nature of things as so far separable from their existence that the nature of A may also be the nature of B. The mind is helpless without ideas, *i.e.* contents divorced from existence.

Yet ideas as such, being self-contradictory, cannot be real. If we are to escape utter scepticism in philosophy we must save their usefulness and relative validity for the working purposes of our ordinary life while still maintaining that they falsify the nature of reality as it would be revealed in a perfect experience. The judgements of which ideas are the vehicle, though they must, in principle, be false, cannot be merely false. They must so far approach the pure truth as to be capable of serving instead of it within a limited range of application. In what way, then, can they be false in principle? According to Bradley the falsity cannot lie in the identity of common predicates. If we attempt a solution of this kind, we end in an utterly disjointed plurality of entirely independent and self-contained particulars; and this means that the world of common sense and science crumbles into cureless ruin. It is futile to attempt to link together the loose and separate particulars by supposing relations between them. Such purely external links would only be additional entities, like those coupling railway carriages; this brings us again face to face with the question: how are these links connected with the entirely loose and separate particulars which they are supposed to unite? Relations subsist only between the members of a whole, and cannot of themselves constitute the unity of the whole which they presuppose.

There is only one way out of this impasse. We must regard the apparent plurality of separate particulars as unreal. What is ultimately real must be a single unique individual; only this one indivisible reality can include within itself characters which are inseparable from its existence. We can define what we mean by the absolute individual only in judgements which start from the contradictions involved in our ordinary knowledge; we can think of it as what, in principle, would be required to remove these contradictions. This is the function of metaphysics. But we cannot see in detail *how* special contradictions are positively resolved in the absolute. We cannot, therefore, follow the transformations which our ordinary judgements would have to undergo in order to be completely true. What we are justified in

saying is that they all, in varying degrees, require transformation; and also that *only* transformation is required, never utter negation. In other words, all ordinary judgements are but partially true and partially false.

§ 4. *Critical Comment.*—Passing to criticism, two questions emerge: (1) Granting that the conception of general characters is self-contradictory, is Mr. Bradley's way of removing the contradiction satisfactory? (2) Is the contradiction itself otherwise inevitable?

(1) Mr. Bradley's remedy seems to me at least as bad as the supposed disease. In attempting to escape one contradiction he incurs another equally serious. His solution is no solution if content is really and not merely in appearance cut loose from reality. I venture to maintain that there is only one sense of the word appearance in which this position is defensible. We must hold that content only *seems* to finite minds separable from existence, and that apart from the limitation of our finite point of view there is no divorce between them. But at this point an insuperable difficulty confronts us. Finite minds, as such, and appearances to finite minds cannot, in this sense, be merely apparent. In order that anything should appear to them and in order that they should appear to themselves, they must, in this sense of the contrast between appearance and reality, be presupposed as real and not apparent. Yet they must, on the other hand, be condemned as unreal just because being distinct separate beings their "what" is divorced from their "that", their general nature from their particular existence. Thus for these finite "centres of experience" the contradiction, if there be a contradiction, remains real and not apparent, and Mr. Bradley's solution is no solution.

He himself is alive to this difficulty, and he meets it, in the first place, by denying that appearance means for him "the appearance of something to some one". This is a secondary sense of the word. His own use of it is much wider; "you have appearance", he says, "whenever, and so far as, the content of anything falls outside its existence, its 'what' goes beyond its 'that'. You have reality, on the

other hand, so far as these two aspects are inseparable."[1] This statement certainly does not help me; it seems merely to offer the difficulty itself instead of its solution. Taking it literally, it can only mean that in "appearances" as thus defined, the severance of content from existence is ultimately a fact. It is not something which seems to be, but really is not. The original contradiction therefore remains untouched. Further, if in presupposing the divorce of the "that" and the "what", finite judgements presuppose what actually is and not merely what seems to be and really is not, they cannot on this account be condemned as even partially false.

This result is inevitable if we insist on passages such as that above quoted, in which Mr. Bradley begins by defining appearance by the severance of content and existence. As we cannot deny that there really are appearances, content and existence must, on this view, really fall apart. There are, however, other passages which suggest an essentially different position. Appearance, so far as it is real, is defined as "the presence in everything finite of that which takes it beyond itself."[2] But this real self-transcendence of the finite does not, as I understand, involve any real severance of the "that" from the "what". It only supplies the reason why to our finite minds they seem to fall apart, though they are in truth inseparable. The self-transcendence of the finite does not really imply that identical characters shall be one with the existence of a plurality of really distinct subjects. This is only the way in which the self-transcendence is apprehended by common sense and science. If we ask what really is, we have to admit that here we have no direct positive insight; we are faced with the incomprehensible. Even in metaphysics, all that we can do is to lay down abstract formulas asserting that a certain condition *may* be fulfilled, that if we are to avoid an ultimate contradiction it *must* be fulfilled, and that therefore it *is* fulfilled; but *how* it is fulfilled we cannot understand.

As the real identity of what we regard as a predicate qualifying a plurality of distinct subjects is for Bradley

[1] *Essays*, p. 250. [2] *Essays*, p. 272.

beyond question, it is the plurality of subjects which must be denied if we are to avoid contradictions. To say this is indeed to destroy the essential character of the relation of subject and predicate as a category of finite thought. But we can express ourselves only in human language; and it is legitimate to do so, if we bear in mind why and how such language must be formally inadequate to express what we mean. This being understood, we may say that for Mr. Bradley all predicates belong to a single indivisible subject as inseparable from its existence, so that ultimately there really is no divorce of the "that" and the "what". The subjects which in ordinary judgements we regard as distinct existences are really diverse aspects which fall within the nature of this single individual existence, called by Bradley the Absolute, or Reality with a capital R. On this view, finite centres of experience are ultimately real; they do not merely seem to themselves and to each other to be something real. On the other hand, they really are not what to each other and to themselves they seem to be; for each seems to itself and the others to be one of a plurality of distinct existences—of ultimate subjects of predicates. If Mr. Bradley is right there cannot be any diversity of this sort.

At this point I feel my original difficulty in its acutest form. If finite centres are not really distinct, it is not merely incomprehensible, but positively contradictory that they should seem to themselves and to each other to be so. Really they are partial phases of an absolutely single and absolutely indivisible experience. Yet the indivisible is really divided so far as to make it possible that it should have parts each capable of apprehending the others not as inseparable phases of its own being, but as quite distinct from its own individual existence. Twist it and turn it as we may, the second position is a flat contradiction of the first. Virtually Mr. Bradley is asserting both that there is only one individual experience and also that there are many. The word "inexplicable" yields no help here. If there is no other chance of escape from the supposed impossibility of common predicates belonging to a plurality of ultimately distinct subjects the situation is hopeless. This contradiction is, I

think, unavoidable, if we begin by making two assumptions: (1) that in asserting a character p of two distinct subjects A and B, we mean that p is really included in the existence of A and also in the distinct existence of B; (2) that the p which belongs to A is individually identical with the p that belongs to B. One or other of these two positions has to be denied.

The first I myself find undeniable. There may be doubt in some instances, but there are others of fundamental importance in which the predicated character must, in Mr. Bradley's phrase, be one with the existence of the subject. Take, for example, analytic judgements of perception, where the subject falls within our immediate experience, so that, in Mr. Russell's language, we are immediately acquainted with it. If while a sense presentation is being presented its own immediate presence is evidence for me that it is blue, bright and extensive, I assert these characters of it as what I find included in its existence. Yet another mind, existing a thousand years ago, may, in like manner, have found these characters in another separately existing sensum.

If we also say that, *e.g.*, the character "blue" is individually identical in both sensa, I agree with Bradley that contradiction is inevitable. My own position, which I have expounded, though inadequately, in my paper on "Universals"[1], read before the British Academy, is that the blue of one sensum is individually distinct from the blue of another, even when exactly alike. They are both said to be blue because the blueness of each falls within the unity of a general kind—blueness in general. The sameness is sameness of kind, not numerical sameness. This presupposes that unity of kind does not ultimately consist in the possession of common characters. Things which have characters in common do indeed, for that reason, belong to some kind or class. But they are members of this class only because each of them is qualified by a distinct character of its own belonging to a certain general kind of character. It is this general kind of character in which the members of the class share.

[1] See the last Essay in this volume.

There is no individual quality common to more than one of them.

On the same principle, I would meet all difficulties raised by Mr. Bradley and others concerning the connexion of identity and difference. That differences should be comprehended within a whole or complex unity presents for me no difficulty whatever; and, as it is the same complex unity which contains them, we may speak intelligibly of difference in identity. We may, for instance, say that the same general kind or class contains within its unity different particular instances, and sub-species. Difficulty arises only when we allow ourselves to speak of "identity in difference". If we insist on taking this phrase literally, it must mean that the complex unity is identical with each of its included differences, and consequently that these are identical with each other. Here we have indeed a direct contradiction, which cannot, I should say, be removed, however inexplicably, in the Absolute.

It is from this point of view that I would deal with alleged contradictions in the conception of relatedness as a predicate. I agree with Bradley that if we start by supposing *A* and *B* to be absolutely independent and self-contained beings, they cannot be linked by relations of any sort. His question seems unanswerable: What is there to connect the relation with the terms it has to relate? To state the problem in this way is virtually to demand that *A* and *B* shall both be related and unrelated. But why should we "raise a dust and then complain that we cannot see"? Mr. Bradley's own conception of supra-relational unity removes the supposed difficulty. Terms are related only within a complex unity containing both them and their relations. *A* cannot be above *B* and *B* below *A* except within a spatial unity which includes both *A* and *B* and their relation of above and below; *A* cannot cause *B* except within a causal unity; *A* cannot resemble *B*, or be of a nature alike to *B*, or be in contrast with *B*, except within the unity of some kind or class. Given the complex unity within which both *A* and *B* fall, there is no contradiction in their being related to each other; on the contrary, we should have a genuine contra-

diction if they were not related. I cannot, however, accept Mr. Bradley's own view of supra-relational unity. He represents it as if it were only and always the unity of qualities within the subject they qualify. This inevitably leads him to the conclusion that there is only one real subject of which all else is predicate. His reason for this procedure I have already, in part, discussed and rejected. There is, however, another relevant point, which I must briefly notice here. It is frequently asserted, as self-evident, that if A is related to B, this very same relatedness must be a predicate of B as well as of A. So far from this being evidently true, it seems to me to be evidently false. If A is above B, it follows that B is below A, but the two facts are not identical; again if A is like B, B must, *pro tanto*, be like A, but the likeness of A to B is not identical with the likeness of B to A. Each resembles the other. I admit of course that if you take A *by itself*, it cannot be related to B. But why should we take A by itself, when it is *not* by itself? Both A and B fall within the same complex unity and are related, each to the other, within this same unity. But for that very reason the relation of A to B need not be the same as that of B to A—though of course it may be of exactly the same kind. So regarded, relational thought involves no contradiction. If we take the absolute to be the ultimate and all-inclusive supra-relational unity, there is no reason why it should not comprehend all the types of relation recognised in finite thinking, the external as well as the internal. Mr. Bradley's reasoning on this point seems to move in a circle. His denial that relations can be ultimately real presupposes his special conception of the Absolute; on the other hand, in order to establish this conception, he has first to show that relations, and especially external relations, are unreal.

§ 5. *Bradley's Argument from the Conditional Nature of Finite Truth.*—There is another main line of argument in Bradley which seems to be urged as if he held it to be cogent by itself, independently of other parts of his philosophy. According to him no finite judgements can be actually true inasmuch as their truth always depends on conditions which they themselves do not and cannot specify.

If this or that judgement is to be entirely free from error, it can be so only on condition that it is capable of taking its place consistently in the single context which includes all other true judgements. But this complete context is for ever beyond our reach, and could only be attained if we ceased to be finite beings, and this would mean that we ceased to think in terms of subject and predicate and other relations. To make our judgement true, it is not sufficient that we should recognise that what we assert depends on an indefinite background of unexplored conditions. So long as we do not know what the conditions are, they may, for aught we can tell, be other than the truth of our judgement demands; they may indeed include something which is directly incompatible with it. We have no ground for holding that this is not so. But in every judgement it is presupposed that there is ground for making it. If there is no such ground the judgement is false. Hence, so far as what we assert depends for its truth on conditions which we cannot specify, we judge untruly.

§ 6. *Critical Comment.*—In passing to criticism, it will clear the way to inquire first whether Mr. Bradley's position here can be reconciled with two other cardinal points of his doctrine. Is it consistent with his view of metaphysical truth, and is it consistent with his view that every judgement must be partially true as well as partially false?

Consider his formula for metaphysical truth: What *may* be and *must* be *is*, though we cannot in detail specify *how* it is. The question arises whether we can have sufficient reason to assert that something *may* be, when we do not know *how*. To say that we do not know how can only mean that what we assert depends on conditions that we cannot specify, and these may or may not be compatible with it.

It is not enough that we, in our ignorance, have no sufficient reason to regard it as impossible; what is required is an adequate positive ground for holding it to be possible. But this seems excluded by the principle that a judgement in order to be true must specify completely the conditions on which its truth depends. I am compelled to assume that in metaphysics Mr. Bradley regards the "may be", so far as

it does not merely express ignorance, as a consequence of the "must be". The conditions of what we assert are treated as consequences guaranteed by the independently known truth of our judgement, even though we do not know what the consequences are. Against this I have nothing to say. But is there any good reason why, proceeding on this principle in metaphysics, we should refuse to accept it elsewhere?

A similar comment is suggested by the doctrine that all judgements are partially true. So far as they are true, do they specifically include all the conditions of what is asserted in them? I do not see how this can be. The alternative is that so far as they are true there is a ground for making them which guarantees all their consequences, whatever these may be. But if this is possible at all, why should it be only possible in part? Why should the evidence be necessarily incapable of bearing the weight of all the consequences?

I speak of consequences where Mr. Bradley speaks of conditions. This is the first point I would urge against his general contention that a judgement cannot be entirely true unless the conditions of its truth are fully specified in making it. Nothing can be a condition of its truth except what must be true if it is true. The preconditions of what we assert are conditions of the truth of the assertion only because if the assertion is true these conditions must be fulfilled; in other words, only because they are consequences of its truth. Though prior in the *ordo ad universum* they are posterior in the *ordo ad nos*. Granting this, we are not as Mr. Bradley implies essentially unable to lay salt on the tail of what he calls "unspecified conditions". Whatever ground we have for asserting as possible, probable, or certain, that A is B, is *eo ipso* a ground for asserting that all the consequences, known and unknown, are possible, probable, or certain. The ground may not be adequate; perhaps we cannot ever be absolutely sure that it is adequate; but, on the other hand, we have no right to maintain that, in principle, it never can be so. Again, when the ground of belief is not adequate it does not follow that the belief is false. Where

there is not knowledge in the strict sense, there may be what is called in Plato's *Theaetetus* true or right opinion. Even a guess may hit the mark; there is room in human affairs for luck as well as skill.

We have finally to ask whether any given finite judgement can be treated as quite free from the risk of error arising merely from unspecified consequences. There are some which, however we scrutinise them, seem to leave no room for doubt. When on the evidence of my own immediate feeling I assert that "there is a pain", it seems impossible that what I then am meaning by pain does not exist. I seem to have all the evidence required for judging, and this seems to leave no loop-hole for doubt. The existence of the pain, we may admit, has endless unspecified implications, and if these are not realised my judgement is untrue. But I need not wait for independent evidence to determine whether they are realised or not. My ground in immediate experience for affirming that pain is felt is *eo ipso* a ground for affirming all the consequences whatever these may be. Take, again, the proposition $2 + 2 = 4$. Mr. Bradley is willing to treat this as entirely true within the sphere of mathematics; but he urges that the system of mathematical presuppositions may be partially erroneous. Is he not putting the cart before the horse? It is primarily the truth of such propositions as $2 + 2 = 4$ which justifies me in accepting the presuppositions without which they would not be true. I do not leave the propositions in doubt until I have ascertained what they presuppose.

None the less it must be admitted that even propositions which appear to defy any possible doubt may be found to contain error. We ought always therefore to regard the certainty of this or that judgement as in some degree provisional. If we encounter objections to it, either discovered by ourselves or raised by others, it is unjustifiable dogmatism to refuse to consider them, or to remain inflexibly fixed in the determination to treat them as worthless. It is rash to presume that any given judgement, as it stands, is incapable in any respect of any sort of correction.

This position differs essentially from Bradley's. In the

first place, it does not exclude the possibility of entire truth. On the contrary, it may be far more likely than not that some judgements, *e.g.* $2+2=4$, are quite free from error. We are justified in treating them as certain until we find strong and positive reason to call them in question. In the second place, the possible error which it allows for is such as is, in principle, capable of being corrected by the ordinary procedure of common sense and science; it is corrigible by other finite judgements which disentangle what is true from what is false and show positively and in detail wherein the mistake consists. If besides this there is metaphysical error, ultimately incorrigible in this way, some other more special ground is required for maintaining its presence than the mere failure of a judgement to specify all the conditions which must be fulfilled if it is true. In the third place, we ought, in considering how far a judgement is true or false, to take account, as Mr. Schiller insists, of the interest of the subject in making it. Error from this point of view may be accidental; it may be husk rather than kernel. When a man says that the "sun is rising" the form of his statement implies that it is the sun rather than the earth which moves, and he may really be taking this for granted; yet in what he intends to assert, and the sort of consequences which he contemplates, he may be entirely indifferent to the question which of the two moves. If it is pointed out that he is astronomically in error, he may fairly reply that he was not saying anything about astronomy and that he is wrong only in the form of statement, not in what he means to assert. He has drunk the claret he wants to drink though he has drunk it out of a port glass. Failure to distinguish between really relevant and merely accidental error is a fruitful source of confusion and unfairness in all discussions —more especially in philosophy. I hope, though I cannot be confident, that I have not been unfair in this or in any other way to Mr. Bradley.

XII

RUSSELL'S THEORY OF JUDGEMENT

IN his theory of judgement, Mr. Russell attempts to determine what we mean when we say that a belief is true or false. Belief is sharply distinguished by him from what he calls "knowledge by acquaintance". Knowledge by acquaintance is knowledge of things themselves, including under this head both particulars and universals, whereas belief or judgement is "knowledge about" things such as may be expressed in statements concerning them. In acquaintance, there is no possibility of error; for it simply consists in the thing itself being before the mind. It is only in knowledge *about* things that the distinction between truth and falsehood as possible alternatives is applicable. Thus in merely apprehending a sense-datum, there cannot be any mistake. In asserting that it is red I may be wrong, but it is nonsense to suggest that I may be wrong in being aware of the sense-datum itself, which I must apprehend before I can assert anything about it. Similarly I cannot be wrong in merely thinking of the relation of likeness, though I may be wrong in asserting that something is like something else, or in asserting that the relation of likeness is a predicate. It is only judgements which are capable of being false. This need not, however, hold good for all judgements. Mr. Russell regards it as highly probable that there are some judgements possessing a kind of self-evidence which is an infallible guide to truth. Under this head come "intuitive judgements of perception". When we are directly acquainted with a sense-datum, we can hardly be wrong in asserting its existence. The like infallibility belongs to judgements if and so far as they merely analyse a complex sense-datum which

we know by acquaintance; for instance, on seeing a piece of white paper with a blot on it, I may analyse the visual appearance by asserting that it contains a part which I call white and a part which I call black, and that the white is round the black. I may be wrong in my use of these words; but, so far as in using these words I am merely expressing differences and relations which I find in the actual sense-datum, there would seem to be no possibility of mistake. Besides such intuitive judgements of perception there are also general principles, such as the law of contradiction, which have a strong claim to be regarded as possessing infallible self-evidence. These include such simple arithmetical propositions as "two and two are four".

All judgements which have not this kind of self-evidence are, in their own intrinsic nature, capable of being either true or false. There is nothing in their own constitution to necessitate their truth or to necessitate their falsehood. We have to inquire what is meant by saying that such judgements are true and what is meant by saying that they are false. As a preliminary to the detailed treatment of this problem, Mr. Russell lays down three requisites which, he says, must be fulfilled by any satisfactory theory. The first is that truth and falsity must be regarded as properties of belief or judgements. The second is that no account of what is meant by a belief being true can be accepted unless it also explains what is meant by its being false. We have to show that in its own intrinsic nature the belief is capable of being false as well as true. We must account for the possibility of error. Mr. Russell's third postulate is that the truth or falsehood of a belief must be recognised "as depending upon something which lies outside of the belief itself. If I believe that Charles I. died on the scaffold I believe truly, not because of any intrinsic quality of my belief, which could be discovered by merely examining the belief, but because of an historical event which happened two and a half centuries ago. If I believe that Charles I. died in his bed I believe falsely; no degree of vividness in my belief, or of care in arriving at it, prevents it from being false, again because of what happened long ago, and not because of any intrinsic property of my

belief."[1] The something outside the belief which makes it true or false is, according to Mr. Russell, some real existence or "actual fact". Truth, then, consists in some relation of correspondence between belief and actual fact, and error in non-correspondence. In what precise way such correspondence is to be defined remains to be investigated. It is the central problem with which we have to deal. In any case, the actual fact which makes the belief true or false cannot as such be present to the mind of the believer in the act of believing, as the object of belief, *i.e.* as that which he means to assert. For if this were so he could never assert anything that was not actual fact and there would be no possibility of error. Plainly the position here maintained by Mr. Russell is of the utmost importance. It is, I believe, far from being generally accepted. But I, for my part, find it quite undeniable. It requires, however, to be very carefully and guardedly stated. We have no ground for affirming that no actual fact which is in any way relevant to the truth or falsity of a belief can be present to the mind of the believer in the act of believing. All that we are justified in saying is this: If and so far as a belief is capable of being either true or false, those precise and specific features of actual fact on which depends the decision between these alternatives cannot be present to the believing mind as the object of the belief. This being understood, we may agree that any satisfactory theory of belief must fulfil Mr. Russell's three requisites. But it by no means follows that a theory which fulfils these three requisites is therefore satisfactory. It is at this point that I begin to part company with Russell. He tests his own theory solely by reference to the three requirements which he himself has formulated. But there seem to me to be at least three others, equally indispensable, of which he takes no account.

In the first place no correspondence can constitute truth which is not a correspondence or which does not include a correspondence between actual fact and something which is before the believing mind in the act of believing; similarly no non-correspondence can constitute falsity,

[1] *The Problems of Philosophy*, p. 189.

except in so far as it involves non-correspondence between actual fact and something which is before the believing mind, in the act of believing. Whatever is not thought of at all by the believing mind is irrelevant to the question of truth and falsity.[1] In other words there is no correspondence of belief with real existence, except in so far as there is correspondence between real existence and what Mr. Russell calls the objective constituents of belief. When I believe "that *A* loves *B*", whatever the words "that *A* loves *B*" may mean when strictly interpreted, their meaning must be apprehended by me and there can be no correspondence between my belief and actual fact except in so far as there is a correspondence between the meaning of these words as I understand them and actual fact. Thus, if I express my belief to another person by saying to him "*A* loves *B*", he can determine whether my statement is right or wrong only by raising the question whether the meaning conveyed by the words "*A* loves *B*" does or does not agree with what really exists. To this extent the old definition of truth as the agreement of *thought* with reality is clearly justified. That this is a necessary condition of truth seems to me obvious from the following consideration: It is admitted that in mere belief the actual fact which determines between truth and falsity is not itself present to thought; if, then, what corresponds to the actual fact were not present to thought, it would follow that truth consists in a correspondence between something which the believing mind does not think of at all and something else which it does not think of at all. If anyone is prepared to accept this position, there can be no common basis of discussion between him and me.

In the second place, what is thus thought of in a true belief differs from the actual fact only in one respect. It differs only in not being actual fact. This becomes evident when we consider that any other difference renders the belief false. When I believe "that *A* loves *B*", if in actual

[1] Except, of course, the existence of the believing attitude itself considered as purely subjective in distinction from its object. But this cannot correspond with fact, except in so far as its object does so.

fact it is P instead of A that loves, or Q instead of B that is loved, or if the relation is any other instead of loving, or if it is B that loves A instead of A that loves B, my belief is false. It follows that the object before the mind in true belief differs from the actual fact not in its nature but in the kind of being which belongs to it. As compared with the actual fact, it is, in some sense which requires to be further defined, relatively unreal. Otherwise it is indistinguishable from the real existence which determines the truth of the belief. Where there is any other difference distinguishable the belief is false.

I do not say that the object of thought in mere belief cannot be actual fact. What I do say is that the sort of being which it must have in order to be an object of thought is not that which belongs to actual fact. It does not follow that what has this sort of being cannot also be actual fact. All that is required to account for the possibility of error is the assumption that it may or may not be actual fact. On the other hand, there is no inconsistency in supposing that what really exists not only may but always does have the kind of being which is presupposed in being an object of thought.

It is worth noting that this condition is satisfied by the old scholastic distinction between "objective existence" and "formal" or actual existence. Indeed I disagree with this doctrine only on one point—a point, however, of vital importance. The "objective existence" of the schoolmen is a mode of being which *consists* in being apprehended or thought of; whereas the mode of being which I distinguish from actual fact does not consist in being thought of, but is a precondition of anything being an object of thought. I shall presently indicate more precisely what I mean by this mode of being in discussing another requisite which must be fulfilled by any tenable theory of belief. This requirement is that the correspondence of belief with actual fact must be thought of and asserted by the believing mind. There can be no truth or error unless something not only is actual fact but is taken to be actual fact. If it is not actual fact, the taking of it for actual fact is a mistaking of it for

actual fact. There can be no truth or error unless the mind means or intends something to be real.

We have good evidence for this in the verbal expression of belief. I may express a belief simply by saying "*A* loves *B*". But if my statement is questioned, I am likely to repeat it in new forms, such as "*A really* does love *B*", "it is an actual fact that *A* loves *B*", "*A's* love for *B* is a reality". These variants do not mean anything different from the original statement. They only make explicit the reference to reality which in the original statement is tacitly implied.

Of course, if anything is asserted to be real, "its being real" must be thought of. But "its being real" may be thought of without being asserted. This is the case in mere supposal such as is expressed in the words "if it should rain to-morrow", or "if I were now in the moon". "If I were now in the moon" means just the same as "if the actual fact were that I was now in the moon". What constitutes the distinction between belief and mere supposal is that in belief what is thought of as being real is also asserted to be real.

At this point we encounter a difficulty. How can anything be thought of as being an actual fact, if the actual fact itself is not present to the mind? But in mere belief it is admitted that the actual fact is not present to the mind. In order to give what I regard as a full answer to this question, I should have to explain in detail my own theory of judgement. This would divert us from the proper subject of this paper, which is concerned with Mr. Russell's view, not with mine. None the less, for the sake of clearness I must briefly indicate how I would meet the difficulty which I have just raised.

When we say that in mere belief the actual fact itself cannot be before the mind, the reference is to the belief only in so far as it is capable of being false as well as true. Hence the reference is only to those precise and specific features of actual fact on which depends the decision between truth and falsity. It is not implied that no actual existence or none that is in any way relevant can be present to thought or perception. On the contrary, some real existence must be apprehended, and it must be relevant in the sense that it

includes those precise and specific features of actual fact which determine whether the belief is true or false. It must be before the mind of the believer as the object of a possible question admitting of alternative answers. Further, it must be known to include actual features of such a nature that they make the belief true or false. This being assumed, we may proceed to consider an example. Suppose that a really existing match-box is as such present to my mind. Plainly this does not make it necessary that all its actual features in their specific detail must be present to my mind. In particular I need not know whether the box is empty or has contents, and if it has contents, what these are. None the less I may know as actual fact that, within and between the surfaces of the box, there is either empty space or contents having the general character required for possible contents of this match-box. It may contain matches or beads or cotton-wool, and so forth. I know that if one of these alternatives is not actual fact, some other must be so instead of it. I am aware of the box as having an actual content, including under this expression empty space. I am aware of these contents as having some specific nature or other. What I am not aware of is just the specific and particular actual content which is actually placed between the surfaces of the box. The important point, however, is that I am aware that an actual content having some specific nature is there, and that it is one of a group of possible alternatives. Further, I may think of this or that alternative, as such, and to do this is to think of it as something which may be actual. For all possibility is possibility of being real. In mere supposal, this is all that is involved. A possible alternative is considered as such. But in belief we do more than this. We not only consider a possible alternative, but we mentally treat it as if it were the realised alternative, and so not only possible but actual. We dismiss more or less completely the thought of other alternatives and proceed in thought and action as if this one were actual fact. When it is so, our belief is true; otherwise our belief is false. I am far from claiming that this account of the matter is incapable of improvement and correction. I recognise that as regards the language in

which it is stated it is clumsy. But I do claim for it that it illustrates the kind of explanation which is required, and that Mr. Russell's solution, though it is neater and apparently simpler, purchases its comparative neatness and simplicity by failing to do justice to the complexity of the problem.

Mr. Russell's doctrine consists (1) in the thesis that judgement is a complex unity, constituted not by a dual but by a multiple relation. A multiple relation is a single relation uniting more than two terms. The multiplicity is not, properly speaking, in the relation but in the terms. He gives as examples jealousy and intermediacy. On this assumption that the relation involved in believing is a single relation between more than two terms, he proceeds (2) to give an account of the sort of correspondence between belief and reality which, according to him, constitutes truth.

Why does Mr. Russell insist that the judgement-relation must be multiple? He gives no reason, and apparently he can find none to give, except that it cannot be dual. But why can't it be dual? Here we touch the vital point of Russell's contention. If the judgement-relation is dual one of its terms must be the believing mind and the other must be a complex unity present to the mind as its object. We must suppose that when someone believes "that *A* loves *B*", the words "*A* loves *B*" stand for a complex unity apprehended in the act of believing. Now Mr. Russell holds that if such a complex unity were apprehended in the act of believing, there could be no way of distinguishing it from an actually existing complex in which *A* is really related to *B* as loving *B*. But if this were so, the actual fact on which the decision between truth and falsity depends would always be before the mind in believing, and error would therefore be impossible.

It is solely in order to meet this difficulty that the conception of judgement as involving a multiple relation is introduced. We must be very careful to realise exactly what is logically implied in this position. The implication is that if such expressions as "that *A* loves *B*" stand for a single object having any kind or degree of unity which may be

conceived as corresponding with the unity of an actual complex, the hypothesis of the multiple relation is unnecessary to account for the difference between truth and falsity. On this view, when I believe that *A* loves *B*, though I may think severally and separately of *A* and of *B* and of loving, I cannot think of loving as being a relation between *A* and *B*. *A fortiori*, I cannot think of it as relating them in the special sense that it is *A* who loves *B* rather than *B* who loves *A*. Otherwise it would be possible to account for the difference between truth and falsity without reference to Mr. Russell's multiple relation. The judgement would be true or false according as *A* and *B* were or were not related in this way.

It is presupposed throughout Mr. Russell's treatment of the subject that the correspondence which constitutes truth is a correspondence between two complexes. One of them must be what he calls "actual fact". The other must either be an object present to the mind or must be otherwise accounted for. Having denied that in believing there is an object before the mind possessing such unity as would enable it to correspond with the actual complex, he is driven to seek some other explanation. He accordingly hits on the conjecture that the complex which corresponds with actual fact is purely and directly the judgement itself. But this judgement-complex contains more than two constituents, the mind and at least three objects apprehended by it. Hence its relating relation must be a multiple relation. It is for this reason and no other that he refers to multiple relations at all.

Wherein then does the correspondence with actual fact consist according to Russell? It consists, he tells us, in a correspondence between the judgement-complex including the believing mind as one of its constituents and another actually existing complex which contains the same constituents related in the same order with one exception. It does not contain the mind. The belief "that *A* loves *B*" is a complex which includes as its constituents the mind and *A* and *B* and the relation of loving. These four terms are united by a single relation, which may be called the judgement-relation. They are united by it in a certain order, the

order which passes from "*A*" to "loving" and from "loving" to "*B*" rather than that which passes from "*B*" to "loving" and from "loving" to "*A*", or from "loving" to "*A*" and from "*A*" to "*B*", or from "loving" to "*B*" and from "*B*" to "*A*".[1] Russell does not tell us whether the mind has any order with reference to the other terms or whether this order is variable. However this may be, the belief, according to him, corresponds with fact when there is an actual complex comprising all the constituents of the judgement-complex except the mind, and unified, not by the judgement-relation, but by the relation of loving. This complex is the actual love of *A* for *B*. When no such complex exists, the belief "that *A* loved *B*" is false.

I have here attempted to reproduce Russell's own general statement of his position. But the general statement is clearly inaccurate if we check it by his detailed exposition. In the first place, the contrast between what is called the actual complex and the judgement-complex is not tenable. The judgement-complex is itself as actual as anything can be. Its constituents really exist, and are really knit together by the judgement-relation. I am inclined to think that Mr. Russell's exposition owes much of its plausibility to the false suggestion that the judgement-complex is or may be, in some sense, unreal—that the judgement itself does not or may not really exist. Again, it is not accurate to say that the actual complex to which the judgement is said to correspond contains all the constituents of the judgement-complex except the mind. "Loving" is not a constituent of the actual complex. It is the relating relation which knits its constituents together. If we choose to say that the relating relation may be regarded as a constituent we get the same difficulty in another form. For, in that case, the judgement-relation is a constituent of the judgement-complex but not of the factual complex. This inaccuracy entails another. Russell cannot really mean that the constituents common to the judgement-complex and the factual complex have just

[1] The last two alternatives do not seem to be excluded. For loving is not a "relating relation", but only one of the terms knit together by the judgement-relation.

the same order in both. For the order as determined by the judgement-relation is from "*A*" to "loving" and from "loving" to "*B*"; but in the factual complex loving is the relating relation and not one of the terms related; hence in it the order is directly from *A* to *B*. "Same order" must therefore be taken to mean an order which is so far similar that it is not reversed.

I have stated what I take to be essential requisites of a satisfactory theory of judgement. I have also analysed Mr. Russell's theory. I have now to inquire whether this theory, strictly interpreted, fulfils the initial requisites. There can, I think, be no question that it fulfils those which Russell himself explicitly recognises. In particular, it certainly succeeds in placing outside the belief itself the actual facts on which truth and falsity depend. But, so far as I can see, it completely fails to fulfil any of the additional requirements which I have formulated. The correspondence which it regards as constituting truth is not a correspondence between actual fact and anything which is present to thought in the act of believing. It is supposed to consist in a relation between the judgement-complex and an actual complex, such that there are certain constituents common to both and placed in a similar order in both. We are thus confronted with the question whether in the act of believing the judgement-complex itself is always apprehended. This would imply that whenever we believe we must at the same time be aware of the state or process of believing, and of the mind as a constituent of it, a very dubious proposition which Mr. Russell himself would probably not accept. But even if we could grant this it would not be sufficient. It is not enough that awareness of the judgement-complex should follow or accompany its existence. What is required is that it should belong to the very constitution of this complex to be apprehended by the mind. But this is plainly a contradictory assumption. The judgement-complex itself must exist as a precondition of our being aware of it. If, then, truth consists in a correspondence between the judgement-complex itself and actual fact, truth must be independent of any awareness which we may have of the judgement-complex.

An inevitable consequence of this is that judgement does not include an apprehension of the order of the terms in the judgement-complex. For if we are not aware at all of the judgement-relation as knitting its terms together, *a fortiori* we cannot be aware of it as knitting them together in a certain order. On the other hand, it is admitted that we are not aware of the actual complex, from which, again, it follows that we are not aware of the order of the constituents of the actual complex. Hence it would seem that, according to Russell, the truth of a belief consists in a correspondence between something which the believing mind does not think of at all and something else which it does not think of at all. It may be said that according to Russell there are present to the mind certain separate items, at least three in number and including a relation. This being so, is it not sufficient to constitute truth that a complex should actually exist in which the other items are knit together by the relation? I answer in the first place that, if this is sufficient, the hypothesis of judgement as involving a multiple relation becomes superfluous. All that is needed is awareness of the separate items. In the second place, on this view, there would be nothing to distinguish the truth of the belief "that A loves B" from the truth of the belief "that B loves A". For in both cases A and B are united by the relation of loving. In the third place, even apart from any question of the order of terms, the position is untenable. For the correspondence is made to consist in the separate items being actually united in a certain kind of complex. As the mind does not think of them as united in a complex at all, it follows again that the correspondence is between something which is not thought of and something else which is not thought of.

Does Russell's theory satisfy our second requirement, that what is before the mind as its object in a true belief must not differ from actual fact except in not being actual? If we suppose that all that is before the mind is the separate items which are united in the actual complex, the condition is not fulfilled, because the relation which is present to thought as one separate item among others is the relating relation of the real complex. If we suppose the judgement-

complex itself to be apprehended, there are further differences. The relating relations of the two complexes are different in kind and there are two constituents of the judgement-complex which are not constituents of the real one, viz. the mind itself and the term which is a relation.

As for the last requisite it is plain that Russell wholly fails to satisfy it. The mind cannot mean or intend something to correspond with something else when one of them is not thought of by it at all. Still less can it do so when it thinks of neither of them.

It would, of course, be possible to pursue this sort of criticism much further. But I have been already tedious enough. I must, however, in conclusion, mention a direct reason for rejecting the theory which I have tried to assail in a circuitous way. My most fundamental objection to it is simply that it affirms what can be immediately seen to be false. It affirms that when I believe that *A* loves *B*, the words "that *A* loves *B*" stand for no object present to my thought having a unity such as to make it capable of corresponding with the actual fact of "*A* loving *B*". As I have already pointed out, this must mean that I do not think of loving as a relation between *A* and *B*, still less as a relation which relates them in such an order that it is *A* who loves *B* and not *B* that loves *A*. Otherwise the actual complex would correspond with my belief, if *A* and *B* were in fact related by the relation of loving and related in this order. But is it not transparently false that in believing or even in supposing that *A* loves *B*, I do not think of *A* and *B* as being related by this relation and in this order? Everyone can decide the question by "looking into his own mind".

NOTE ON "KNOWLEDGE BY ACQUAINTANCE" AND "KNOWLEDGE ABOUT"

Russell's account of the distinction between "acquaintance" and "knowledge about" is essentially as follows: To be acquainted with anything is to have the thing itself directly before the mind. To know about it is to have cognisance of it as being "such and such" or "so and so". In

other words, in knowing about a thing we assert that it has certain characters, we attribute to it certain attributes. This includes the case in which we judge that it exists. That to which the characters belong is the thing itself, with which we are directly confronted on "acquaintance".

According to Russell it is impossible to know *about* a thing unless we are acquainted with it. But he recognises that, in many cases, we appear to make judgements about things with which we are not acquainted. When this is so, we seem to mark off the subject we mean to refer to merely by what we know about it. Thus in asserting that "the contents of this box will get wet", I need not be actually acquainted with what is inside the box. I may mentally refer to it merely as that which is inside the box, whatever this may be. I am then, in Russell's terminology, said to know by description. What is inside the box is a "descriptive phrase" or a "denoting phrase". But it is impossible for Russell to admit the possibility of knowledge by description being ultimate. It is perhaps the most fundamental tenet of his philosophy that acquaintance with a thing is the indispensable presupposition of knowledge about it. He is, therefore, bound to explain away "knowledge by description", and he attempts to do so in his article "On Denoting", *Mind*, N.S., Vol. xiv. pp. 479 *seq*. On this point I shall have something to say in the sequel. But I must begin by examining the general distinction between acquaintance and "knowledge about".

On Mr. Russell's view, acquaintance is not acquaintance with characters or attributes, but with the subject as something distinct from all that can be truly asserted of it in judgements. This is a position which I cannot accept. The subject, taken apart from all its characters or attributes, can only be known, if it can be known at all, as that to which the characters or attributes belong. In other words, it can be known only by description. If we persist in asking what it is in itself and yet refuse to take as an answer any statement of its attributes, we can only say with Locke that it is a "somewhat, we know not what". Russell seems to feel this difficulty in the special case of the "I" as subject, "the

I which sees the sun and is acquainted with 'sense-data' ". But there is the same difficulty in the case of all subjects, as such. It is true that knowledge by description seems to involve a distinction between knowing about something and knowing the thing itself. But this distinction, when it is accurately examined, does not support Russell's contention. It is always a distinction between the knowledge that something exists in certain relations and the knowledge *what* it is that is related in this way. But the question "What is it?" can be answered only by assigning attributes to a subject. It is not answered by any revelation of the bare subject itself denuded of the characters which belong to it. We never reach a mere "that" as contrasted with a "what". If I know something merely as being whatever is contained in a certain box, this leaves unanswered the question, What then is it that is inside the box? I may get a partial answer by opening the box and examining its contents. But in doing so I merely discover certain further characters of that which I previously knew through a certain relational attribute—through its relation to the box. That which possesses both the relational attribute and the other attributes is never present to the mind by itself as a bare subject.

We may take as a crucial test what Mr. Russell calls the "intuitive judgement of perception". In such judgements we are directly acquainted with a sense-datum, and we simply assert the characters which we find in it. The question is whether, when we have taken account of all the characters capable of being asserted in judgements of this nature, there is anything that we are immediately acquainted with left over which can be regarded as the subject. I can find no such thing. The sense-datum is, let us say, extended: it is black throughout its extent; it is round; it is bordered by a surrounding expanse of white. Except such attributes as these there is nothing that I am immediately acquainted with. When I speak of being acquainted with them, I, of course, do not mean that in mere acquaintance there is any apprehension of attributes, *as such*. But it is equally obvious that in mere acquaintance there is no apprehension of a subject or "thing", *as such*. The distinction of subject and

attribute is possible only in judgement. It is only in judgement that we can determine what we are and what we are not immediately acquainted with.

It may be said that characters or attributes are always general, whereas the sense-datum we are acquainted with is not general but particular. I do not think that this distinction is tenable. Both the sense-datum and the characters asserted of it are in the same sense particular and in the same sense general. The sense-datum itself is general in the sense that it is a member or instance of certain classes or kinds. It is for instance a member of the class "all sense-data", of the class "all red sense-data", and of the class "all coloured sense-data". On the other hand it is particular, inasmuch as it is a particular member or instance of each of these classes or kinds. To say that it is a certain sort of thing is more accurately expressed by using what is in ordinary language an equivalent expression and saying that it is a thing of a certain sort. This means that it is a constituent of a complex having a unique and ultimate form of unity, the *distributive* unity of a class or kind as opposed to all collective or synthetic forms of unity. The constituents of the complex are what we call the members or instances of the class or kind. The sense-datum is a particular member of many such complexes, and in this sense it may perhaps be called general as well as particular. Whether this is a legitimate use of language or not, my point is that the characters ascribed to the sense-datum in the intuitive judgement of perception are not general in any other sense than this. Each is a particular character and possesses no generality except what may be held to consist in its being a particular instance of a class or kind. When I assert that the sense-datum is red, I mean just that particular red with which I am immediately acquainted. I cannot mean any other because there is no other belonging to this particular sense-datum. Similarly when I say that the sense-datum is coloured, what I mean to assert of it is the same particular red; the only difference is that I am now considering this particular as a member of the class "all colours" instead of the class "all reds".

Mr. Russell's theory of generality is of course different from mine. But can he show that it is superior to mine, or, indeed, that it is tenable at all? It assumes that when each of a plurality of sense-data is truly judged to be red, the meaning is that a single indivisible quality (called a "universal") appears in different places or at different times in connexion with each sense-datum. I ask Mr. Russell whether acquaintance with a particular red sense-datum includes acquaintance with this "universal" quality. If it does not, how can we assert the quality in an intuitive judgement of perception which simply asserts what we *are* immediately acquainted with? If, on the other hand, we *are* acquainted with the quality in this way, then, on Mr. Russell's view, it must be particular, not general, and a subject or "thing", not an attribute. In any case it is pure mythology to suggest that besides the particular red we are also aware of a shadowy counterpart of it called redness, in the form of a floating adjective hovering over this and all other particular reds. Again, the single universal quality is said to appear in different places. What then are we to say of the character common to all places, as such? Can this be said to be single and indivisible and only to appear in a plurality of particular places? The same question arises as regards the common character of *appearing* which belongs to all the particular apparitions of the same universal quality. Mr. Russell's theory of "universals" seems to be beset with insuperable difficulties.[1] But even if we were to accept it, we should not therefore be bound to give up the view that we are only acquainted with a subject inasmuch as we are acquainted with its attributes. For it would be open to us to hold that so-called particulars are in reality "universals" appearing at different times and different places and in varying combinations. Such a view would, I believe, be quite indefensible. But the objections to it are ultimately objections to a theory of generality which I myself reject.

What then is the subject itself as distinguished from its attributes? It would seem that its whole being must consist in being that to which its attributes belong. But how can

[1] I have only referred to a few of them.

the whole being of anything consist in its being related to something else? There must be an answer to the question, What is it that is so related? It is doubtless for this reason that Mr. Russell insists on regarding the subject as something distinct from all its attributes and capable of being present to the mind independently of them. There is, however, another alternative which avoids the difficulty. There is no need to consider the subject as being something distinct from the total complex of its characters. What we call the characters or attributes of the same subject are united with each other by a form of unity as peculiar and ultimate as that which I have ascribed to a class or kind. The complex so constituted is what we call the subject. To be an attribute of the subject is to be a member of this complex. To know the subject as such we need only know one or more of its attributes. The other attributes are then known by description as being those required to complete the complex, whatever they may be in specific detail. On this view, the distinction between subject and attribute would be abolished in the limiting case of a subject with a perfectly simple nature. This emerges with great clearness in the discussions of the schoolmen concerning the conception of God as an absolutely simple being.

I take knowledge by description to be as ultimate as knowledge by acquaintance.[1] The possibility of it rests for me on the fact that some entities, at least, have a certain kind of incompleteness, such that on apprehending them we are able to apprehend them as being incomplete and are therefore aware of something as being necessary to complete them. We may also know that the something, inasmuch as it has to satisfy this condition, must be of a certain general character. But its specific and detailed nature has, at least in most cases, to be otherwise ascertained.

Mr. Russell refuses to regard knowledge by description as ultimate. In his article in *Mind* (Vol. xiv. N.S.) he attempts to give an account of it which shall presuppose nothing

[1] This point is of immense importance. The opposite view is fundamental in the systematic structure of Mr. Russell's philosophy, and more or less determines his attitude to all special problems.

but knowledge by acquaintance. His explanation is somewhat intricate; but I need not deal with its intricacies here. It is sufficient to say that I stumble on the very threshold. Mr. Russell, in attempting to account for knowledge by description in terms of what is *not* knowledge by description, assumes as fundamental "the notion of the variable" and he cannot stir a step without it. If, therefore, the notion of the variable involves anything which is known by description and not by acquaintance, his explanation moves in a vicious circle. What then is a variable?

A limited or relative variable is something determined as having a certain general character but otherwise capable of alternative specification, so that it may be "this, that, or the other", whatever this, that, or the other may be, provided that they fall within the class or kind originally presupposed The reference to "this, that, or the other, whatever this, that, or the other may be", is not, I would urge, knowledge by acquaintance but knowledge by description. The absolute variable differs from the relative only in one respect. There is no general character which its values must possess except that of having some kind of being. But the phrase "whatever has any kind of being" is certainly descriptive. It is equivalent to "all things", which Mr. Russell himself expressly recognises as a descriptive formula.

A further objection has been pointed out to me by Mr. Broad. Russell presupposes not only the notion of the variable but also "propositional functions" such as "X is human". But how can we be acquainted with a "propositional function"? It is conceived as being a form of propositions properly so called. It is what Kant would call a form of judgement. Yet Mr. Russell cannot mean to say we are acquainted with all the judgements of which a propositional function is the form. We can know them only by description.

XIII

ERROR[1]

SYNOPSIS

1. In Error, what is unreal seems to be thought of in the same way as the real is thought of when we truly know it. How is this possible? As an essential preparation for answering this question we must first deal with another. Do other modes of thinking exist besides those which can be properly said to be either true or false? There are two such modes. (1) Indeterminate or problematic thinking. (2) Thinking of mere appearance without affirming it to be real.

2 and 3. To think indeterminately is to think of something as one of a group of alternatives, without deciding which. The indeterminateness lies in not deciding which, and so far as the indeterminateness extends there is neither truth nor error. Whatever is thus indeterminately thought of belongs to the *Intent* of consciousness. The term *Content* should be reserved for what is determinately presented.

Indeterminate thinking takes the form of questioning as a mental attitude essentially analogous to questioning. Interrogative thinking is the way we think of something when we are interested in knowing it, but do not yet know it. Its distinctive characteristic is that the decision between alternatives is sought for in the independent reality of the total object in which we are interested. This object is regarded as having a determinate constitution of its own, independently of what we may think about it. We are active in cognitive process only in compelling the object to reveal its nature. The activity is experimental; its result is determined for us and not by us.

In the play of fancy, on the contrary, we do not seek to conform our thought to the predetermined constitution of our object. We select alternatives as we please, and to this extent make the object instead of adapting ourselves to its independent nature.

[1] Throughout this essay I am deeply indebted to the criticisms and suggestions of Professor Cook Wilson. In particular, I have substantially adopted his account of the distinction between abstract terms and adjectives, in place of a less satisfactory view of my own.

4. Besides indeterminate thinking there is yet another mode of thinking which is neither true nor false. It consists in thinking of mere appearance without taking it for real. This happens, for example, in the play of fancy. Mere appearance consists in those features of an object of consciousness which are due merely to the special conditions, psychological and psychophysical, of its presentation, and do not therefore belong to its independent reality.

5, 6, and 7. Error occurs when what is merely apparent appears to belong to an independent reality in the same way as its other real features. The conditions under which this occurs may be divided under two heads. (1) Confusion. (2) Ignorance and inadvertence. Ignorance or inadvertence are present in every error, Confusion only in some.

8. It follows from the very nature of error that it cannot exist unless the mind is dealing with something independently real. Hence, some truth is presupposed in every error as its necessary condition.

9. There are limits to the possibility of error. There can be no error unless in relation to a corresponding reality, which is an object of thought for him who is deceived. Further, this reality must be capable of being thought of without the qualification which is said to be illusory.

Hence, among other results, we may affirm that abstract objects cannot be illusory unless they contain an internal discrepancy. For they are considered merely for themselves, and not as the adjectives of any other reality in relation to which they can be illusory. So far as the abstract object is merely a selected feature of actual existence, it is not merely not illusory; it is real. It is something concerning which we can think truly or falsely.

10. But the constructive activity of the mind variously transforms and modifies the abstract object, in ways which may have no counterpart in the actual. To this extent, the abstract object may be relatively unreal. None the less, such mental constructions, so far as they belong to scientific method, are experimental in their character and purpose. They serve to elicit the real nature of the object as an actual feature of actual existence. Thus abstract thinking, even when it is constructive, gives rise to judgements concerning what is real. These judgements may at least be free from the error of ignorance. For the mind may require no other data to operate on in answering its questions except those that are already contained in the formulation of them. Errors of confusion and inadvertence may still occur. But even these are avoidable by simplifying the problems raised. Thus, abstract thinking yields a body of certain knowledge.

11. Certainty, then, is attainable. It exists when a question is made to answer itself, so as to render doubt meaningless. When this is so the real is present to consciousness, as the illusory can never be.

§ 1. *The General Nature of Error.*—The question raised in the present essay is fundamentally the same as that discussed in Plato's *Theaetetus*. The *Theaetetus* may be described as a dialogue on the Theory of Knowledge. But the central problem did not take the same shape for Plato as it does for most modern epistemologists since the time of Descartes. What the moderns trouble themselves about is the nature and possibility of knowledge in general. How, they ask, can a particular individual be in such relation to a reality which transcends and includes his own existence as to know it? Can he know it otherwise than through the affections of his own consciousness which it produces? If it can only be known in this way, can it be said to be known at all? Are not his own mental states the only existences which are really cognised? Questions of this sort occupy modern philosophers, and they have given rise to the Critique of Pure Reason, among other results. But I cannot see any evidence that in this form they gave much trouble to Plato. The nature and possibility of knowledge would probably not have constituted a problem for him at all, had it not been for the existence of error. That we can know was for him a matter of course, and it was also a matter of course that we may be ignorant. But he was puzzled by the conception of something intermediate between knowing and not knowing. If an object is present to consciousness, it is *pro tanto* known; if it it not present to consciousness, it is not known. But in so far as it is known there can be no error, because the knowledge merely consists in its presence to consciousness. And again, in so far as it is not known there can be no error, for what is not known is not present to consciousness: it is to consciousness as if it were non-existent, and therefore the conscious subject as such cannot even make a mistake concerning it. Hence we cannot be in error either in respect to what we know or to what we don't know, and there seems to be no third alternative.

This is Plato's problem, and ours is fundamentally akin to it. For with him we must assert that, in knowing, the object known must be somehow thought of, and in this

sense present to consciousness. The grand lesson of the history of Philosophy is just that all attempts to explain knowledge on any other assumption tumble to pieces in ruinous incoherence, and that from the nature of the case they must do so. The only form such attempts can take is to treat knowledge simply as a case of resemblance, conformity, or causality, between something we are conscious of and something we are not conscious of. What we are conscious of we may be said to know immediately. But the something we are not conscious of, how can *that* be known? The only possible pretence of an answer is that the knowing of it is wholly constituted by its somehow resembling, or corresponding to or causing what is actually present to consciousness. But this pretended answer in all its forms is utterly indefensible. The supposed conformity, resemblance, or causality is nothing to us unless we are in some manner aware of it. If I am to think of A as resembling B or as corresponding to it or as causing it, I must think of B as well as of A. Both A and B must be in some way present to my consciousness.

The very distinction of truth and error involves this. Truth is frequently defined as the agreement, and error as the disagreement, of thought with reality. But this definition, taken barely as it stands, is defective and misleading. It omits to state that the reality with which thought is to agree or disagree must itself be thought of, and that the thinker must intend to think of it as it is. Otherwise there can be neither truth nor error. I may imagine a dragon, and it may be a fact that dragons do not actually exist. But if I do not intend to think of something which actually exists, I am not deceived. And, on the same supposition, the actual existence of dragons exactly resembling what I imagine would not make my thought true. It would be a curious coincidence and nothing more. So in general, if we assume a sort of inner circle of presented objects, and an outside circle of unpresented realities, we may suppose that the presented objects are similar or dissimilar to the real existences, or that in some other way they correspond or fail to correspond to them. But the resemblance or correspondence

would not be truth and the dissimilarity or non-correspondence would not be error. Even to have a chance of making a mistake we must think of something real and we must intend to think of it as it really is. The mistake always consists in investing it, contrary to our intention, with features which do not really belong to it. And just here lies the essential problem. For these illusory features seem to be present to cognitive consciousness in the same manner as the real features are.[1] How then is it possible that they should be unreal? This is our problem, and evidently it is closely akin to that raised by Plato. But there is a difference and the difference is important. Our difficulty arises from the fact that when we are in error what is unreal appears to be present to consciousness *in the same manner* as what is real is presented when we truly know. While the erroneous belief is actually being held, the illusory object seems in no way to differ for the conscious subject from a real object. The distinction only arises when the conscious subject has discovered his mistake, and then the error as such has ceased to exist. The essential point is not merely that both the illusory and the real features are presented, but also that they are both presented as real and both believed to be real. It is not enough to say that they are both really appearances. We must add that they are both apparent realities.

Now the question did not take this shape for Plato. The difficulty which he emphasises is not that what is unreal may be present to consciousness *in the same way* as what is real. The stumbling-block for him is rather that it is present to consciousness at all. For what is present to consciousness must, according to him, be known; and if it is known, how can it be unreal? On the other hand if it is not present to consciousness, it is simply unknown. Thus there would seem to be no room for that something intermediate between knowing and being ignorant which is called error.

Before proceeding to deal with our own special diffi-

[1] It will be found in the sequel that I admit cases where the conditions which make error possible are absent, and in these cases the real is present to consciousness in a different manner from that in which the unreal is capable of being presented.

culty it will be well to examine the Platonic assumption that whatever is in any way present to consciousness, whatever is in any way thought of, is known—unless indeed error be an exception. Besides knowing and being mistaken it is also possible merely to be aware of a mere appearance which not being taken for reality is therefore not mistaken for reality. This is a point to which we shall recur at a later stage. For the present I wish to draw attention to another mode of thinking which involves neither knowing, nor mere appearance, nor error.

§ 2. *Intent and Content.*—Cognitive process involves a transition or attempted transition from ignorance to knowledge, and where we are trying to make this transition there may be an intermediate state which is neither knowledge, nor ignorance, nor error. We may be interested in knowing what we do not as yet know. But we cannot be interested in knowing what we do not think of at all. In what way then do we think of anything before we know it or appear to know it? I reply that it is an object of interrogative or quasi-interrogative consciousness. It is thought of as being one and only a *certain* one of a series or group of alternatives, though which it is we leave undecided.

Sometimes the question is quite definite. The alternatives are all separately formulated. Thus we may ask, Is this triangle right-angled, acute, or obtuse? In putting the question we seek for only a certain one of the three alternatives, but until the answer is found we do not know which of them we are in search of; we do not know it although we think of it.

Sometimes the question is only partially definite; only some alternatives or perhaps only one of them is separately formulated. Thus we may ask, Has he gone to London, or where else?

Sometimes, again, the question is indefinite. What is sought is merely thought of as belonging to a group or series of alternatives of a certain kind, which are not separately formulated. Suppose that I am watching the movements of a bird. My mental attitude is essentially of the interrogative type even though I shape no definite ques-

tion. I am virtually asking—what will the bird do next? The bird may do this, that, or the other, and I may not formulate the alternatives. But whatever changes in its position or posture may actually occur are for that very reason what I am interested in knowing before I know them. I am looking for the determinate while it is as yet undetermined for me. Or, to take an illustration of a different kind, I have to find the number which results from multiplying 1947 by 413. At the outset I do not know what the number is, and yet there is a sense in which I may be said to think of it. I think of it determinately as the number which is to be obtained by a certain process. So far I may be said to know about it. But the knowledge about it is not knowledge of what it is. Yet this is what I aim at knowing, and therefore I must in some sense think of it. I think of it indeterminately. I think of it as being a certain one of a series of alternative numbers, which I do not separately formulate.

So far I have considered only cases in which knowledge is sought before it is found, so that the transition from the indeterminate to the determinate comes as the answer to a question definite or indefinite. But there are instances in which this is not so. There are instances in which the answer seems to forestall the question. A picture falls while I am writing. I was not previously thinking of the picture at all, but of something quite different. My attention is only drawn to the picture by its fall. But the picture then becomes distinguished as subject from its fall as predicate. This means that the picture is thought of as it might have existed for consciousness before the fall took place. It is regarded as relatively undetermined and the predicate as a determination of it. The fall of the picture comes before consciousness as if it were the answer to a question.[1] The relation of subject and predicate is essentially analogous to what it would have been if we had previously been watching to see what would happen to the picture.

[1] Of course if we suppose that the noise of the fall first awakens the question—What is falling?—before we think of the picture, the fall is subject and the picture predicate. But I do not think that this account of the matter always holds good in such cases.

In this and similar instances, there is an actual distinction of subject and predicate essentially analogous to that of question and answer. But in a very large part of our cognitive experience no such distinction is actually made. I look, let us say, at my book-shelves, and I am aware of the books as being on the shelves and of the shelves as containing the books. But I do not formulate verbally or otherwise the propositions: "The books are on the shelves", or "The shelves contain the books". Neither the books nor the shelves are regarded as relatively indeterminate and as receiving fresh determination in the fact that one of them stands in a certain relation to the other. Again, I may meet a friend and begin to talk to him on some political topic, proceeding on the assumption that he agrees with me. I find that he does not, and only then do I wake up to the fact that I have been making an assumption. And it is only at this point that the distinction of subject and predicate emerges. Such latent or unformulated presuppositions are constantly present in our mental life. They are constantly involved in the putting of questions. They are constantly involved in the conception of the subjects to which we attach predicates, and also in the conception of the predicates. The nature, function, and varieties of this kind of cognitive consciousness we cannot here discuss. It is sufficient for our purpose to note that all such cognitions are capable of being translated into the subject-predicate form, without loss or distortion of meaning. Further, this translation is necessary if we are to submit them to logical examination. In particular, we cannot otherwise deal with any question relating to their truth or falsity. The disjunction, *true or false*, does not present itself to consciousness until we distinguish subject and predicate. In the absence of this distinction there is only unconscious presupposing or assuming. But when the distinction is made it is essentially analogous to that of question and answer.

So far as our thought is indeterminate there can be neither truth nor error. But it must be remembered that our thought is never purely indeterminate. A question always limits the range of alternatives within which its

answer is sought; and the question itself may be infected with error. A man for instance may set out to find the square root of two. In the formulation of the question he leaves it undetermined what special numerical value the root of two has. But he assumes that it has some determinate numerical value. To this extent his question is infected with error, and it can have no real answer unless it is reshaped. If he seems to himself to find an answer, he does but commit a further error. What he thinks he wants to know, is not what he really wants to know. Hence in finding what he really wants to know he must alter the form of his question.

This leads me to make a suggestion in terminology. The term "content of thought" is perpetually being used with perplexing vagueness. I propose to restrict its application. We cannot, without doing violence to language, say that the indeterminate, as such, is part of the content of thought. For it is precisely what the thought does not contain, but only intends to contain. On the contrary, we can say with perfect propriety that it belongs to the *intent* of the thought. It is what the conscious subject intends when its selective interest singles out this or that object.

From this point of view we can deal advantageously with a number of logical and epistemological problems. For instance it throws light on the proposed division of propositions into analytic and synthetic. Whatever can be regarded as a judgement, whether expressed in words or not, is and must be both analytic and synthetic. It is synthetic as regards content and analytic as regards intent. While I am watching a bird, whatever movement it may make next belongs to the intent of my thought, even before it occurs. It is what I intend to observe. But the special change of posture or position does not enter into the content of my thought until it actually takes place under my eyes. Hence each step in the process is synthetic as regards content though analytic as regards intent. This holds generally for all predication which is not mere tautology. If the predicate did not belong to the intent of its subject, there would be nothing to connect it with this special subject

rather than with any other. If it already formed part of the content there would be no advance and therefore no predication at all.

From the same point of view, we may regard error as being directly or indirectly a discrepancy between the intent and content of cognitive consciousness.

Sometimes the discrepancy lies in a latent assumption. The initial question which determines the intent of thought may itself be infected with error, as in the example of a man setting out to find the square root of two. In such cases it would seem that a man cannot reach truth unless he finds something which he does *not* seek. But the reason is that there is already a discrepancy between intent and content in the very formulation of his initial question. The man is interested in formulating an answerable question, and he fails to do so. Similarly wherever error occurs there is always an express or implied discrepancy between intent and content.

It follows that truth and error are essentially relative to the interest of the subject. To put a question seriously is to *want* to know the answer. A person cannot be right or wrong without reference to some interest or purpose. A man wanders about a town which is quite unfamiliar without any definite aim except to pass the time. Just in so far as he has no definite aim he cannot go astray. He is equally right whether he takes a turn which leads to the market-place or one which leads to the park. If he wants to amuse himself by sight-seeing it may be a mistake for him to go in this direction rather than in that. But if he does not care for sight-seeing, he cannot commit this error. On the other hand if his business demands that he should reach the market-place by a certain time, it may be a definite blunder for him to take the turn which leads to the park. In this example the interest is primarily practical and the blunder is a practical blunder. But the same principle holds good for all rightness and wrongness even in matters which appear purely theoretical. Our thought can be true or false only in relation to the object which we mean or intend. And we mean or intend that object because we are, from what-

ever motive, interested in it rather than in other things. If a man says that the sun rises and sets, he may refer only to the behaviour of the visible appearance of the sun, as seen from the earth's surface. In that case you do not convict him of error when you remind him that it is the earth which moves and not the sun. For you are referring to something in which he was not interested when he made the statement. Error is defeat. We mean to do one thing and we actually do another. So far as the error is merely theoretical what we mean to do is to think of a certain thing as it is, and what we actually do is to think of it as it is not.

This implies that the thing we think of has a constitution of its own independent of our thinking—a constitution to which our thinking may or may not conform. A question is only possible on the assumption that it has an answer predetermined by the nature of the object of inquiry. It is this feature which marks off the interrogative consciousness peculiar to cognitive process from the form of indeterminate thinking which is found in the play of fancy. While the play of fancy is proceeding, its object is at any moment only partially determined in consciousness, and each step in advance consists in fixing on one alternative to the exclusion of others. But the intent of imaginative thinking is different from that of cognitive, and consequently the decision between competing alternatives is otherwise made. An examination of this difference will carry us a step farther in our inquiry.

§ 3. *Imaginative and Cognitive Process.*—Imaginary objects as such are creatures of our own making. When we make up a fairy-tale for a child the resulting object of consciousness is merely the work of the mind, and it is not taken by us for anything else. In the development of intent into content, of indeterminate into determinate thinking, the decision among alternatives is made merely as we please, whatever be our motive. It depends purely on subjective selection so far as the process is imaginative.

It is necessary to add this saving clause. For no imaginative process is merely imaginative. Even in the wildest play of fancy, the range of subjective selection is restricted by

limiting conditions. Gnomes must not be made to fly, or giants to live in flower-cups. Thackeray's freedom of selection in composing *Vanity Fair* was circumscribed by his purpose of giving a faithful representation of certain phases of human life. In so far as such limiting conditions operate, the mental attitude is not merely imaginative. It is imaginative only in so far as the limiting conditions still leave open a free field for the loose play of subjective selection.

This freedom of subjective selection is absent in cognitive process. Instead of deciding between alternatives according to his own good pleasure, the conscious subject seeks to have a decision imposed upon him independently of his wish or will. It is true that cognitive process may include a varied play of subjective selection. But there is one thing which must not be determined by subjective selection. It is the deciding which among a group of alternative qualifications is to be ascribed to the object we are interested in knowing.

In cognitive process as such we are active merely in order that we may be passive. Our activity is successful only in so far as its result is determined for us and not by us.

In this sense we may say that the work of the mind when its interest is cognitive has an *experimental* character. What is ordinarily called an experiment is a typical case of this mental attitude. A chemist applies a test to a substance. The application of the test is his own doing. But the result does not depend on him: he must simply await it. Yet he was active only in order to obtain this result. He was active that he might enable himself to be passive. He was active in order to give the object an opportunity of manifesting its own independent nature. His activity essentially consists in the shaping of a question so as to wrest an answer from the object of inquiry. In all cognitive process the mental attitude is essentially analogous. Suppose that I am interested in knowing whether any number of terms in the series $1+\frac{1}{2}+\frac{1}{4}+\frac{1}{8}$, etc., have for their sum the number 2. I may proceed by actually adding. This is a mental experiment, but it turns out to be unsuccessful. It

does not transform my initial question into a shape in which it wrests its own answer from its object. By adding any given number of terms I find that the sum is less than two. But the doubt always remains whether by taking more terms I may not reach a different result. Under this mode of treatment my object refuses to manifest its nature so as to answer my question. I fail to obtain an answer by waiting for data which I have not got—by waiting till some number of terms shall present itself having 2 for their sum. Accordingly I resort to another form of experiment. I appeal to experience *a priori*, instead of experience *a posteriori*. Instead of looking for data which I have not got, I try to obtain an answer by manipulating the data which I already possess in the very conception of the series as such, and of the number 2. I fix attention on the form of serial transition, and I inquire whether this is capable of yielding a term such as will make 2 when it is added to the sum of preceding terms. I find that such a term must be equal to the term that precedes it, and that according to the law of the series each term is the half of that which precedes it. Hence no number of terms can have 2 as their sum. My experiment is successful. It translates my question into a shape in which it compels an answer from its object.

Suppose again that I am verifying the statement that two straight lines cannot enclose a space. I conceive two lines as straight, ignoring all else but their being lines and their being straight. I then consider the varying changes of relative position of which they are capable, and I find by trial that only certain general kinds of variation are possible. If I think of them as not meeting at all, they refuse to enclose a space. The same is true when they are thought of as meeting at one point only. But if they meet at more than one point they insist on coinciding at all points. This result of my experiment does not depend on my activity; it is determined for me by the nature of the object on which I operate, by the constitution of space and of straight lines.

It will be seen that I have included under the term experiment two very different groups of cases. To the first group belong such instances as the application of a chemical

test. Their distinctive character is that an answer to the question raised cannot be obtained merely by operating on the data which are already presupposed in putting the question itself. When I am watching to see what a bird will do next, the decision does not come merely from a consideration of what I already know about the bird. The decision is given by *a posteriori* experience. On the other hand, if I want to know whether two straight lines can enclose a space I need no data except lines, straightness, and space as such. I can shape my question by mentally operating on these data so that it answers itself. The decision is given by *a priori* experience. But both results obtained *a priori* and those obtained *a posteriori* are equally due to an experimental process, to an activity that exists in order that it may be determined by its object.

§ 4. *Mere Appearance and Reality.*—All error consists in taking for real what is mere appearance. In order to solve the problem of error we must therefore discover the meaning of this distinction between mere appearance and reality. We are now in a position to take this step. We have a clue in the foregoing discussion of the nature of the imaginary object as such. The imaginary object as such is unreal and we see quite clearly wherein its unreality consists. It is unreal inasmuch as its imaginary features as such have no being independently of the psychical process by which they come to be presented to the individual consciousness. They are merely the work of the mind, merely the product of subjective selection and they are therefore mere appearances. But though they are mere appearances, they are not therefore illusory or deceptive. They are not deceptive, because they are not taken for real. While the purely imaginative attitude is maintained, they are not taken either for real or unreal. The question does not arise, because in imagination as such we are not interested in the constitution of an object as independent of the process by which we come to apprehend it.[1] On the

[1] The fact that the object is merely imaginary is not attended to. We do not contrast it as unreal with something else as real. If we are externally reminded of its unreality, the flow of fancy is disturbed. The flow of fancy is also disturbed if we are called on to believe that our fancies are facts. The whole question of reality or unreality is foreign to the imaginative attitude.

other hand when the question *is* raised whether what we merely imagine has this independent being, we commit no error if we refuse to affirm that it has. Mere appearance is not error so long as we abstain from confusing it with reality.

The imaginary object is only one case of mere appearance. It is the case in which the nature of what is presented to consciousness is determined merely by the psychical process of subjective selection. But there is always mere appearance when and so far as the nature of a presented object is determined merely by the psychological conditions of its presentation, whatever these may be. There is always mere appearance when and so far as a presented object has features due merely to the special conditions of the flow of individual consciousness as one particular existence among others, connected with a particular organism and affected by varying circumstances of time and place.

In ordinary sense-perception the thing perceived is constantly presented under modifications due to the varying conditions of the perceptual process. But what we are interested in knowing is the thing so far as it has a constitution of its own independent of these conditions. Hence whatever qualifications of the object are recognised as having their source merely in the conditions of its presentation are *pro tanto* contrasted with its reality as being merely its appearances.

An object looked at through a microscope is presented as much larger and as containing far more detail than when seen by the naked eye. But the thing itself remains the same size and contains just the same amount and kind of detail. The difference is due merely to conditions affecting the process of perception, and it is therefore merely apparent. On the other hand, the details which become visible when we use the microscope, and which were previously invisible, are ascribed to the real object. The parts of the object being viewed under uniform perceptual conditions, whatever differences are presented must be due to it, and not to the conditions of its presentation. The visible extension of a surface increases or diminishes according as I

approach or recede from it, and the visible configuration of things varies according to the point of view from which I look at them. But these changes being merely due to the varying position of my body and its parts are regarded as mere appearances so far as they are noted at all.[1] If I close my eyes or look away, objects, previously seen, disappear from view. But this being due merely to the closing of my eyes or my turning them in another direction is no real change in the things. They are really just as they would have been if I had continued to look at them.

It is important to notice that in cases of this kind the mere appearance is not to be identified with any actual sense-presentation. The appearance is due to a certain interpretation of the sensible content of perception, suggested by previous experience. When we see a stick partially immersed in a pool, the visual presentation is such as to suggest a bend in the stick itself. Even while we are denying that the stick itself is bent, we are thinking of a bend in it. Otherwise the act of denial would be impossible. This being understood, it is easy to see that all cases of mere appearance are in principle analogous to the examples drawn from sense-perception. Mere appearance exists wherever anything is thought of as having a character which does not belong to it independently of the psychical process by which it is apprehended. Unless this character is affirmed of its independent reality, there is no error. If a man denies that two lines are commensurable, or if he questions whether they are so or not, their commensurableness must have been suggested to his mind. If the lines are really incommensurable, this suggestion is mere appearance. Should he affirm them to be commensurable he is in error.

We now pass to two important points of principle. In the first place it should be clearly understood that mere appearance is a qualification of the object apprehended and not of the mind which apprehends it. There is here a complication due to an ambiguity in the term *appearance*.

[1] To a large extent they pass unnoted. We have acquired the habit of ignoring them. So far as this is the case, they are not apprehended as appearances of the thing perceived.

It may mean either the presenting of a certain appearance or the appearance presented. The last sense is that in which I have hitherto used the word in speaking of mere appearance. A stick, partly immersed in a pool, appears bent in the sense that it presents the appearance of being bent. The bend is the appearance presented. Now the presenting of this appearance is an adjective of the stick as an independent reality. The stick which is really straight really presents the appearance of being bent. It does not merely appear to appear bent: it really appears so. Given the psychological and psychophysical conditions of its presentation, it is part of its independently real nature that it should wear this appearance. But the apparent bend is not a qualification of the independently real stick. It is a qualification of a total object constituted by the real stick so far as it is present to consciousness and also by certain other presented features which are due merely to the special conditions under which the real stick is apprehended. Mere appearance is in no sense an adjective of the cognitive subject. The person to whom a straight stick appears as bent when it is partially dipped in a pool is not himself apparently bent on that account, either bodily or mentally. He who imagines a golden mountain is not himself the appearance of a golden mountain: his psychical processes are not apparently golden or mountainous. The existence of mere appearance is not that of a psychical fact or event except in the special case where the real object thought of happens to be itself of a psychical nature.

In the second place, the distinction between mere appearance and reality is relative to the special object we are interested in. In ordinary sense-perception we are interested in the objects perceived so far as they have a constitution independent of the variable conditions bodily and mental of the perceptual process. Contrast this with the special case of a beginner learning to draw from models. For him what in ordinary sense-perception is mere appearance becomes the reality. He has to reproduce merely what the object looks like from the point of view at which he sees it. And he finds this a hard task. The visual presentation is

apt to be apprehended by him as having qualifications which do not belong to its own independent constitution, but are merely due to the conditions of his own psychical processes in relation to it. His established habit of attending only to physical magnitude and configuration leads him to think of physical fact even in attempting to think only of the sensory presentation. Thus a child in drawing the profile of a face will put in two eyes. But the physical fact so far as it is unseen does not belong to the reality of the visual presentation. It is therefore mere appearance relatively to *this* reality, and in so far as it is confused with this reality, it is not only mere appearance but error.

§ 5. *Special Conditions of Error.*—Having defined what we mean by mere appearance we have now only one more step to take in order to account for error. We have to show how the mere appearance of anything comes to be confused with its reality.

It is clear from the previous discussion that there can be neither truth nor falsehood except in so far as the mind is dealing with an object which has a constitution predetermined independently of the psychical process by which it is cognised.

Such logical puzzles as the *Litigiosus* and *Crocodilus* involve an attempt to affirm or deny something which is not really predetermined independently of the affirmation or denial of it. In the *Litigiosus* the judgement to be formed is supposed to be part of the reality to which thought must adjust itself in forming it. Euathlus was a pupil of Protagoras in Rhetoric. He paid half the fee demanded by his teacher before receiving lessons and agreed to pay the remainder after his first lawsuit if he won it. His first lawsuit was one in which Protagoras sued him for the money. The jury found themselves in what appeared a hopeless perplexity. It seemed as if they could not affirm either side to be in the right without putting that side in the wrong. The difficulty arose from the attempt to conform their decision to a determination of the real which had no existence independently of the decision itself. Apart from the

judgement which they were endeavouring to form, the reality was indeterminate and it could not therefore determine their thought in the process of judging. The *Crocodilus* illustrates the same principle in a different way. A crocodile had seized a child, but promised the mother that if she told him truly whether or not he was going to give it back, he would restore it. There would be no difficulty here if the mother's guess were supposed to refer to an intention which the crocodile had already formed. But he is assumed to hold himself free to regulate his conduct according to what she may happen to say, and so to falsify her statement at will. There is therefore no predetermined reality to which her thought can conform or fail to conform; which alternative is real, is not predetermined independently of her own affirmation of one of them. Hence an essential condition of either true or false judgement is wanting. One consequence of the general principle is that a proposition cannot contain any statement concerning its own truth or falsity. Before the proposition is made in one sense or another its own truth or falsity is not a predetermined fact to which thought can adjust itself. Thus if a man says, "The statement I am now making is false", he is not making a statement at all. On the other hand, he would be speaking significantly and truly if he said, "The statement I am now making contains nine words". For he can count each word after determining to use it. His precedent determination to use the word is an independent fact which he does not make in the act of affirming it.

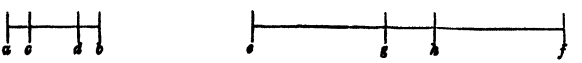
For error to exist the mind must work in such a way as to defeat its own purpose. Its interest must lie in conforming its thought to the predetermined constitution of some real object. It must be endeavouring to think of this as it is independently of the psychological conditions of the thinking process itself. And yet, in the very attempt to do so, it must qualify its object by features which are merely due to such psychological conditions.

I cannot pretend to give anything approaching a full analysis of the various special circumstances which give rise to this confusion of appearance and reality. But the

following indication will serve to illustrate the general principle involved.

Errors may be roughly classified under two heads which we may designate (1) as errors of confusion, and (2) as errors of ignorance, inadvertence, and forgetfulness. All errors involve a confusion of appearance and reality. But this confusion is the error itself, not a condition determining its occurrence. When we speak of an error of confusion, we mean an error which not only is a confusion, but has its source in a confusion. Again, all errors involve some ignorance, inadvertence, or forgetfulness. Whenever anyone makes a mistake, there is something unknown or unheeded which would have saved him from error if he had known and taken account of it. But we can distinguish between cases in which ignorance or inadvertence or forgetfulness are the sole or the main source of the erroneousness of a belief, and those in which another and a positive condition plays a prominent part. This other positive condition is what I call confusion. I shall begin by explaining wherein it consists, and illustrate it by examples.

§ 6. *Errors of Confusion.*—There is a confusion wherever our cognitive judgement is determined by some thing else than the precise object which we are interested in knowing. We mean to wrest a decision from just this object concerning which the question is raised; but owing to psychological conditions, other factors intervene without our noticing their operation, and determine, or contribute to determine, our thought. Optical illusions supply many examples. I must content myself with one very simple illustration of this kind.



In the above figure there are two straight lines, *a b* and *e f*; the part *c d* is marked off on *a b*, and the part *g h* on *e f*. *c d* is really equal to *g h*. But most persons on a cursory glance would judge it to be longer. The reason is that though we mean to compare only the absolute length of *c d* with the absolute length of *g h*, yet without our knowing it, other factors help to determine the result. These are the

relative length of *c d* as compared with *a b*, and the relative length of *g h* as compared with *e f*. This example is typical. In all such instances we mean our judgement to depend on comparison of two magnitudes as presented to the eye. But these magnitudes are presented in more or less intimate union with other items so as to form with these a group which the attention naturally apprehends as a whole. Hence there is a difficulty in mentally isolating the magnitudes themselves from the contexts in which they occur so as to compare these magnitudes only. We seek to be determined by the nature of the object which we are interested in knowing, but we escape our own notice in being determined by something else. This is confusion.

Another most prolific source of confusion is found in preformed association. All associations are in themselves facts of the individual mind and not attributes of anything else. If the idea of smoke always calls up in my mind the idea of fire as its source, this is something which is true of me, and not of the fire or the smoke as independent realities. It might seem from this that whenever our judgement of truth and falsehood is determined by association, we commit a confusion. But this is not so; for it is the function of association to record the results of past experience; and when the results recorded are strictly relevant to the object we are interested in knowing, and to the special question at issue, there is no confusion.

The association between 12×12 and equality to 144 registers the result of previous multiplication of 12 by 12. There is therefore no confusion in allowing it to determine our cognitive judgement. But the associative mechanism may become deranged so that 12×12 calls up 154 instead of 144. In that case to rely on it as a record involves an error of confusion.

It often happens that certain connexions of ideas are insistently and persistently obtruded on consciousness owing to associations which have not been formed through experiences relevant to the question at issue. So long and so far as their irrelevance is unknown or unheeded, the irrelevant association determines the course of our thought

in the same way as the relevant. Take by way of illustration an argument recently used by an earth-flattener. The earth must be flat; otherwise the water in the Suez Canal would flow out at both ends. The associations operative in this case are those due to experience of spherical bodies situated on the earth's surface. Whenever the earth-flattener thinks of the earth as a globe, inveterate custom drives him to think of it as he has been used to think of all the other globes of which he has had experience. But the question at issue relates to the earth as distinguished from bodies on its surface. Hence a fallacy of confusion.

One effect of repeated advertisements such as those of Beecham's pills, covering several columns of a newspaper, is to produce this kind of illusion. Self-praise is no recommendation. But self-praise skilfully and obtrusively reiterated may suffice to produce an association of ideas which influences belief.[1]

Errors due to ambiguity of words come under this head. A word is associated with diverse though allied meanings, and, as we go on using it in what aims at being continuous thought, one meaning insensibly substitutes itself for another. Being unaware of the shifting of our object from A to A' we go on assuming that what we have found to be true of A is true of A'. We begin for instance by talking of opponents of government, meaning advocates of anarchy, and we proceed to apply what we have said of these to opponents of some existing government.

"Bias" is a source of confusion distinct from irrelevant association, though the two frequently co-operate to produce error. Bias exists so far as there is a tendency to accept one answer to a question rather than another because this answer obtrudes itself on consciousness through its connexion with the emotions, sentiments, desires, etc., of the

[1] Many persons have a prejudice against advertisements. I share this prejudice myself. And yet the obtrusive vividness and persistent reiteration of some of them do now and then produce in me a momentary tendency to believe which might easily become an actual belief if I were not on my guard. Alliterative and rhetorical contrast often help to stamp in the association. "Pink pills for pale people" is a good instance. Of course the whole effect of advertisement cannot be explained in this way.

subject, or in one word, because it is specially *interesting*. The interest is most frequently agreeable. But it may also be disagreeable. In returning home after the discovery of the famous footprint, Robinson Crusoe's terror caused him to mistake every bush and tree, and to fancy every stump at a distance to be a man. To say that a man's mind is intensely occupied in escaping or guarding against danger, is equivalent to saying that he is intensely interested in finding out what the danger is and where it lies. Hence he will be on the alert for signs and indications of peril. He will therefore attend to features of his environment which would otherwise have passed unnoted, and he will neglect others which he would otherwise have attended to. Thus fear may influence belief by determining what data are, or are not, taken into account. By excluding relevant data it may give rise to error of inadvertence. But besides this the data which fear selects are also emphasised by it. They obtrude themselves with an insistent vivacity proportioned to the intensity of the emotion. This insistent vivacity directly contributes to determine belief and becomes a source of error of confusion. In view of current statements this last point needs to be argued.

The prevailing view appears to be that errors due to bias are merely errors of inadvertence. Dr. Ward, for example, strongly takes up this position. "Emotion and desire", he remarks, "are frequent indirect causes of subjective certainty, in so far as they determine the constituents of consciousness at the moment—pack the jury or suborn the witnesses as it were. But the *ground* of certainty is in all cases some quality or some relation of these presentations *inter se*. In a sense, therefore, the ground of all certainty is objective—in the sense, that is, of being something at least directly and immediately determined for the subject and not by him."[1]

What Ward's argument really proves is that subjective bias cannot be recognised by the subject himself as a ground or reason for believing. It does not follow that it may not

[1] *Psych. Prin.* p. 355. I now think that my criticism of Ward's position is mistaken.

directly influence belief through confusion. In cases of confusion we seek control proceeding from the nature of our object, and we find our thought determined by something else which we fail to distinguish from the objective control we are in search of. Now there seems to be no reason why subjective interest should not, in this way, mask itself as objective control. Connexion with emotion and desire may give to certain ideas a persistent obtrusiveness which is not always adequately traced to its source. But this persistent obtrusiveness, when and so far as it is not traced to its source in emotion and desire, must appear as if it arose from the nature of the object. It will thus appear to the subject as something which determines him and is not determined by him. This confusion may assume three forms. In the first place there are instances in which it is very difficult to discover any other cause of belief except subjective bias. The person who holds the belief cannot assign any reason for it except that he feels it to be true. Sometimes, no doubt, there may be in such cases an objective ground which the believer finds it impossible to express or indicate to others. But there are instances in which the sole or the main factor seems to be subjective bias. What is believed obtrudes itself upon consciousness vividly and persistently because of its peculiar kind and degree of interest so that it is difficult to frame the idea of alternative possibilities save in a comparatively faint, imperfect, and intermittent way.

The second class of cases is less problematical. I refer to instances in which there are relevant reasons for belief but reasons which are inadequate to account for the actual degree of assurance, apart from the co-operation of bias. *A* regards *B* with hatred and jealousy so that the mere imagination of *B's* disgrace or ruin has a fascination for him. Something occurs which would produce in an impartial person a suspicion that *B* had been behaving in a disgraceful way. *A* at once believes the worst with unwavering decision and tenacity. It may be that the impartial person, who only entertains a suspicion, has just as restricted a view of the evidence as *A*. The restriction may

be due to ignorance or indifference in his case, and mental preoccupation in *A*'s. But for both the relevant evidence may be virtually the same. The difference is that in *A*'s mind it is reinforced and sustained by subjective bias which he does not sufficiently allow for. In a third class of instances irrelevant association co-operates with subjective bias. This is perhaps the most fertile source of superstitions and of those savage beliefs of which superstitions are survivals. Take for example the tendency which some uneducated persons and even some who are educated find irresistible, to think of their bodies as still sentient after death. *Sit tibi terra levis* is more than a metaphor. It points back to the belief that the weight of the superincumbent earth actually distresses the corpse. It is a Mahometan superstition that the believing dead suffer when the unhallowed foot of a Christian treads on their graves. In the old Norse legends to lay hands on the treasure hidden in the tomb of a chief is to run a serious risk of rousing its owner from his long sleep to defend his possessions. Perhaps there are few people who look forward to their own funeral without figuring themselves to be present at it not only in body but in mind. This whole point of view is in part due to a firmly established association arising from the intimate connexion of mind and body during life. But besides this we must also take into account the gruesome fascination of such ideas. Their vivid and absorbing interest makes it difficult to get rid of them, and this persistent obtrusiveness in so far as it is not traced to its source in psychological conditions contributes to determine belief in their reality.

§ 7. *Errors of Ignorance and Inadvertence.*—We turn now from the error of confusion to the error of mere ignorance, which must be taken to include all forgetfulness or inadvertence. As I have before pointed out, all error involves some ignorance or inadvertence; but in the case of confusion there is also some other positive ground of the erroneousness of the belief. An irrelevant condition operates as if it were relevant. It would not do so, if we were fully and persistently aware of its presence and influence, and

to this extent the error of confusion is one of ignorance or inadvertence; but the ignorance and inadvertence is not the sole cause of error. There is also the undetected influence of the irrelevant factor determining the course of thought. In the error of mere ignorance or inadvertence, on the other hand, the sole ground of the erroneousness of the belief lies in the insufficiency of the data, at the time when it is formed. But here we must guard against a misapprehension. The error is not identical with the ignorance or inadvertence. It is a belief having a positive content of its own. Nor is it correct to say even that the determining cause of this belief lies in the ignorance or inadvertence. Mere negation or privation cannot be the sole ground of any positive result. What directly determines belief is the data which are presented, not anything which is unpresented, and we must add to these as another positive condition the urgency of the interest which demands a decision and will not permit of a suspense of judgement. It is these factors which are operative in producing the belief. Ignorance and inadvertence account only for its erroneousness. In all cognitive process we seek to be determined by the nature of our object. But if the object is only partially known, what is unknown may be relevant so that if it had been known and heeded another decision would have been imposed on us.

As an example of error due to mere ignorance, I may refer to a personal experience of my own. Some time ago I set out to visit a friend who, as I assumed, was living in Furnival's Inn. I found on arrival that the whole building had been pulled down. My error in this case was not due to any confusion. The evidence on which I was relying was all relevant and such as I still continue to trust on similar occasions. I went wrong simply because certain events had been occurring since my previous visit to Furnival's Inn without my knowing of them.

Inadvertence is not sharply divided from mere ignorance. It includes all failure to bring to consciousness knowledge, already acquired and capable of recall, at the time when it is required for determining our decision. It may also be taken to include other failures to take into account

knowledge which would have been immediately and easily accessible if we had turned our attention in the right direction. Mill gives many examples under the head "Fallacies of Non-observation". From him I quote the following: "John Wesley, while he commemorates the triumph of sulphur and supplication over his bodily infirmities, forgets to appreciate the resuscitating influence of four months' repose from his apostolic labours". Wesley knew that he had taken rest and also that rest has commonly a recuperative effect in such cases. His failure lay in omitting to take these facts into account owing to subjective bias, as an amateur physician with crotchets and as a religious enthusiast.

So far as error is traceable to ignorance or inadvertence, it is perhaps abstractedly possible to conceive that it might have been avoided by an absolute suspense of judgement. I might have refused to count on the continued existence of Furnival's Inn, or even on the chance of it, on the ground that I did not know all that had happened in relation to it, since I saw it last. But such suspense of judgement cannot be uncompromisingly maintained as a general attitude throughout our whole mental life. It would be equivalent to a refusal to live at all. Anyone who carried out the principle consistently would not say "this is a chair" when he saw one. He would rather say, "This is what, if my memory serves me right, I am accustomed to regard as the visual appearance of a chair". In thus cutting off the chance of error we should at the same time cut off the chance of truth. In order to advance either in theory or practice, we must presume—*bet* on our partial knowledge. We must take the risk due to an unexplored remainder of conditions which may be relevant to the issue we have to decide on. But there is another alternative. A mental attitude is possible intermediate between absolute suspense of judgement and undoubting acceptance of a proposition as true. We may judge that the balance of evidence is in favour of the proposition. Instead of unreservedly expecting to find Furnival's Inn, I might have said to myself that it was a hundred to one I should find it. So far as this proposition has a practical

significance as a guide to action it can only mean that I should be right in relying on similar evidence in 99 cases out of 100. But such an attitude does not really evade the possibility of error arising from ignorance and inadvertence. For (1) we are liable to go wrong even in the estimate of probabilities. There are, for example, vulgar errors of this kind which mathematical theory corrects. (2) In determining the probability of this or that proposition, we proceed on the basis of a preformed body of beliefs which are themselves liable to be erroneous. In particular, we are apt to assume undoubtingly that our view of competing alternative is virtually exhaustive, when it is really not so. But we cannot be always sifting these latent presuppositions to the bottom. If we constantly endeavoured to do so in a thoroughgoing way, it would be impossible to meet the emergencies of practical life or even to make effective progress in knowledge. It is a psychological impossibility to assume and maintain a dubitative attitude at every point where ignorance or inadvertence are capable of leading us astray. We have not time for this, and in any case the complexity and difficulty of the task would baffle our most strenuous efforts. (3) Continued attention to the possibility of a judgement being wrong would for the most part hamper us in the use of it. In believing, we commit ourselves to act on our belief, to adapt our conduct and our thought to what is believed as being real. In so doing we must more and more tend to drop demurrers and reservations. I cannot every time I return to my house after absence keep steadily before my mind that it may have been burnt down without my knowing it. When we have committed ourselves to a belief so as to conform our thought and conduct to it, it becomes more and more interwoven with the whole system of our mental life. Our interest in its consequences and implications diverts attention from considerations which point to its possible or probable erroneousness and at the same time this same interest forms a subjective bias of growing strength which is likely to lead to an error of confusion.

Absolute suspense of judgement, as we have defined it,

would exclude even a judgement of relative probability. There is, however, a different meaning which attaches in ordinary language to the phrase "absolute" or "complete" suspense of judgement. It is frequently taken to mean that the balance of probability for and against a proposition is regarded as even. This kind of suspense does not prevent us from acting as if the proposition were true or false. But neither does it exclude error. For the judgement that probabilities are equally balanced is itself liable to error, like other judgements of probability. Besides this, such a judgement is not by itself sufficient to determine action. It must be supplemented by other beliefs of a more positive kind, and in regard to these the possibility of error again emerges. A man may regard it as an even chance whether a certain operation will kill or cure him. He may, none the less, decide to undergo it, so that his practical decision is the same as if he had no doubt of a favourable result. But the practical decision is founded on another belief, the belief that the advantage of a favourable issue is greater than the disadvantage of an unfavourable issue. Again a general may think the chances even, of the enemy coming this way or that to attack him. Merely on this basis he could not intelligently make provision for one contingency in preference to the other. In order that he may do so, he must be influenced by other beliefs of a more determinate kind. He may, for instance, believe that if the enemy comes one way, it is useless to attempt resistance, and that if he comes the other, the attack can be repelled. On these assumptions he will proceed as if he undoubtingly accepted the second alternative. Our result, then, is: (1) That absolute suspense of judgement excluding even the judgement of probability is equivalent to suspense of action. (2) That the relative suspense of judgement which consists in affirming even chances does not suffice to determine action unless it is supplemented by other beliefs in which one alternative is preferred to others. Hence it appears that practical decision involves theoretical decision, and that we must constantly risk error by presuming on partial knowledge if we are to live at all.

Here we must close this sketch of the special conditions

of error. The topic in itself is almost inexhaustible. But what has been said may serve to illustrate our general position.

This position is simply that error is a special case of mere appearance. It is mere appearance which also appears to be real. The essence of all mere appearance is that it is a feature of an object which belongs to it only in virtue of the psychical conditions under which it is apprehended. In the case of error the psychical conditions so operate that mere appearance is not recognised as such, but is on the contrary presented as if it were real.

§ 8. *No Error is Pure Error.*—The rest of this essay will be occupied with some corollaries which flow from our general position.

One of these is that no error is pure error. However much we may be deceived, the total object of our thinking or perceiving consciousness cannot be entirely illusory.

This does not mean that error is only truth in the making, or that truth can always be obtained by some adjustment, compromise, combination, or higher synthesis of diverging views. When I say that error is never pure error I am not adopting the attitude of the landlord of "The Rainbow" in *Silas Marner*. "Come, come," said the landlord, "a joke's a joke. We must give and take. You're both right and you're both wrong as I say. I agree with Mr. Macey here, as there's two opinions; and if mine was asked I should say they're both right. Tookey's right and Winthrop's right, and they've only got to split the difference and make themselves even." It is no such comfortable philosophy that I am advocating. On the contrary, I admit and maintain that in the ordinary acceptation of the word a man may be and frequently *is* "completely wrong", and also that he may be and sometimes, though not so frequently, is completely right. But I would point out that such phrases are used in ordinary parlance with a certain tacit and unconscious reservation. "Completely wrong" means completely wrong so far as relates to the point at issue—to the question which alone possesses interest for the parties concerned. If a man meets me some morning

and tells me, in good faith, that Balliol College has been burned down during the night, I say, with justice, that he has been completely deceived, when it turns out that there has been no fire, and that Balliol College is just as it was. If my informant were to defend himself from the charge of complete error by alleging that after all Balliol College really exists, and that fires really take place, I should call his answer irrelevant and stupid. Yet the answer would be true enough, and it would only be stupid because of its irrelevance. It would be irrelevant because the existence of Balliol and the occurrence of fires were facts taken for granted as a matter of course. There was never any question concerning them. When I said that he was entirely deceived, I meant that he was so deceived on the only point of interest which could lead him to make the statement at all, or me to listen to it.

Thus in ordinary intercourse we may be completely right in saying that a man is completely wrong. But this is possible only because the statement is made with a tacit and unconscious reservation. It is made with reference not to the total object present to the mind of the person who is deceived, but with reference to that part of it which alone interests us at the moment. But when we are concerned with the philosophical theory of error, what is uninteresting in ordinary intercourse becomes of primary importance. We must consider the total object, and when we do so we are compelled to recognise that some truth is implied in every error. For otherwise the word "error" loses all meaning.

The unreality of what is unreal lies wholly in its contrast with what is real. It must be thought of as qualifying some real being. Its unreality is relative not to any real being whatever taken at random, but only to that real being to which it is referred as a character or attribute.

It is essential to the possibility of error that both the real being and its unreal qualification must be present to consciousness. I may imagine an animal and describe it as imagined. Another person who is acquainted with some actual animal more or less resembling what I have imagined

may regard my description as referring to this. From his point of view he may show that parts of my description are unreal. But he does not convict me of error unless he can show that I intended to describe the animal which he has in mind.

It does not follow that the explicit subject of an erroneous judgement must itself be real and not illusory. It may be illusory in relation to a more comprehensive subject, which is real. If I am told that Cleopolis, the capital of fairy-land, was burnt down last night, I reply that Cleopolis and fairy-land never had any actual existence. Here I condemn both subject and predicate as illusory. But in doing so I regard the subject as itself a predicate of a more comprehensive subject which really exists. I presuppose a certain kind of reality which I call actual existence. This consists in a system of things and events continuously connected in an assignable way with my own existence at the present moment, and including what happened last night. When I say that Cleopolis never actually existed, I deny that it ever formed a partial feature of this reality.

What has been said of the subject of an erroneous judgement applies also to the predicate. The predicate cannot be entirely unreal. This follows from the fact that the distinction between subject and predicate is relative to the point of view of the person judging, and fluctuates accordingly. Whether I say "this horse is black" or "this black thing is a horse" depends on the point of departure of my thought and not on the nature of its object. If I begin by regarding the object as a horse and then proceed to qualify it as black, "black" is predicate and horse subject. If I begin thinking of the object as a black thing and then proceed to qualify it as being a horse, horse is predicate and "black thing" is subject.

Considerations of this kind have led some writers to regard error as ultimately consisting merely in a misplacement of predicates. Subject is real and predicate is real; we err only in putting them together in the wrong way. This manner of speaking seems to me misleading so far as it suggests that the illusory object, as such, having no positive content of its own, can be resolved without remainder

into constituents which are not illusory but real. The fallacy lies in the tacit assumption that *A* as predicate of *B* is just the same *A* as when it is predicated of *C*, *D*, *E*, etc. This is not so. In predicating *A* of *B* we think of *A* as related in a specific way to the other constituents and attributes of *B*. But this relatedness of *A* is as much part of the positive content of our thought as whatever may be left of *A* when we abstract from this relatedness. Besides this, *A* when it is thought of as existing in these relations is thought of as adjusted to them and modified accordingly. In Goldsmith's poem of the mad dog, the people make a mistake in saying that the man would die.

> The man recovered of the bite;
> The dog it was that died.

Here it is assumed that the man is real, the dog is real, and the death is real. It would seem therefore that the error lay merely in a wrong arrangement—in coupling death with the man instead of with the dog. But in fact the death of a man is something different in its nature and implications from the death of a dog, and a man dying is something different from a dog dying. Perhaps if the man had died, the world would have lost a church-warden. But this could not be part of the meaning of the death of the dog.

§ 9. *Limits to the Possibility of Error.*—If the essential conditions of error are absent, what is taken for real must be real. From this point of view we can prescribe limits to the possibility of error. A belief cannot be erroneous unless it ascribes to a real existence, as such, some qualification which does not belong to it. The real existence must itself be present to consciousness, and the subject must mean it to be qualified by the features which are said to be illusory. Thus, when an illusion is spoken of, we have a right to inquire what the reality is in relation to which it is an illusion. We have a right to insist that this reality must be thought of by the subject who is deceived. We have also a right to insist that it must be capable of being conceived without the feature or features which are said to be illusory. Otherwise there would be a circle.

Now there are cases in which no such reality is assignable, and it is consequently meaningless to speak of error. I believe in the totality of being, and it is nonsense to say that I may be deceived. For there is no more comprehensive reality of which the totality of being can be conceived as a partial feature or aspect. Whatever point there may be in the ontological argument for the existence of God lies in this. Again, I believe that my consciousness exists, and my belief cannot be illusory. For it cannot be illusory unless I regard my consciousness as a qualification of some reality which is not so qualified. Now whatever this reality is supposed to be, it must be a reality which is present to my consciousness when I commit the error. In other words, we cannot think of any reality to contrast with illusion which does not include the very feature that is alleged to be illusory.

A more interesting illustration is supplied by the objects of abstract thought.

The object signified by an abstract term is not regarded as an adjective of anything else. In substituting for an adjective the corresponding abstract noun we leave out of count adjectival reference and treat the object of our thought only as a substantive. This does not mean that we cease to regard it as an attribute; for all abstract objects are essentially attributes and must be recognised as such. "Adjectival reference" does not merely consist in being aware that an attribute is an attribute. The distinctive function of adjectives is the attribution of an attribute to a thing. Their specific office is to express the connexion of a certain attribute with whatever other attributes the thing may possess. Unless the thing is expressly considered as possessing other attributes, the adjectival reference loses all significance. On the contrary, an attribute abstractly considered is considered by itself: the fact that the things which it qualifies possess other attributes is regarded as irrelevant to the purpose of our thought. Things are referred to only in so far as they may possess the attribute in which we are interested, to the neglect of their other features.

The addition of such phrases as *qua*, or "as such", to an adjective always annuls the adjectival reference and substitutes for it the abstract point of view. When I say "white things", I include in the intent of my thought whatever other attributes may belong to the things besides whiteness. Hence in passing from intent to content, I can affirm that "white things are tangible". When I say "white things as such, or *qua* white", I exclude from the intent of my thought the other attributes of white things, though I do not of course deny their existence. Hence I cannot say that "white things as such, or *qua* white, are tangible". In like manner, we cannot say that "whiteness is tangible". For "whiteness" is equivalent to white things *as such*, or *qua* white.

If this account of the abstract object is correct, such an object cannot be illusory unless it is internally incoherent. For illusion exists only if a qualification is ascribed to something to which it does not belong. But an attribute abstractly considered is regarded merely as an attribute of whatever may happen to possess it. Whiteness is regarded only as an attribute of whatever things are white. But white things *must* be white. There is only one conceivable way in which the abstract object can be unreal. It may be unreal because by its own intrinsic nature it is incapable of existing. But this can be the case only when it is internally incoherent. When it is internally incoherent, it is illusory, because it contains illusion within itself, apart from reference to anything else.[1]

The concept of a solid figure bounded by twelve squares is unreal in this manner. For the nature of solid figures, abstractedly considered, is such as to exclude the qualification attributed to it. Similarly any abstract object is illusory if one of its constituents is thought to be a possible

[1] Just as adjectival reference may be annulled by the phrases "as such", or *qua*, so abstraction may be annulled by making the abstract object a subject of a judgement in which it is affirmed to be an attribute of something. For its connexion with other attributes of the thing essentially belongs to the import of such a judgement. The judgement is possible because the fact of the abstract object being an attribute is one of its own essential adjectives. When we say that it is an "attribute of", we merely give this adjective a specific determination.

or necessary qualification of another which it does not so qualify. I speak only of possible or necessary, not of *actual* connexion, because the question of actuality involves an adjectival reference beyond the content of the abstract object itself. When we say that a solid figure is not actually bounded by twelve squares, we mean that nothing actually exists, combining the attributes of a solid figure and of being bounded by twelve squares. But this in itself would not make the abstract object illusory: for in its abstractedness it is not intended as the adjective of anything else.

Assuming internal coherence it seems clear that the abstract object cannot be illusory. But is it real? and if so in what sense? I answer that it is real if it is possible to make a mistake or even to conceive a mistake concerning it. It is real if it is an object with which our thought may agree or disagree. This seems to me the only relevant use of the term reality in theory of Knowledge, and more especially in theory of Error.

It may be urged that the truth or error which has an abstraction for its object is only hypothetical or conditional, resting in an assumption. Now, it is becoming a custom with some writers to use such words as "hypothetical" or "conditional" with perplexing vagueness. In the present case the meaning seems very obscure. Certainly truth and falsehood relating to an abstraction presuppose that it is just this abstract object which we intend and nothing else. But how can this make the truth or error itself hypothetical or conditional? I affirm that the sky is blue and someone tells me that my statement is hypothetical because it can only be true or false on the condition that I really mean the sky and not, let us say, a piece of coal, or the Christian religion. This is so plainly nonsense that it seems futile to waste words over it.[1]

But is not abstract thought unreal, because it takes something to be self-subsistent which is not so? I answer that abstract thought does nothing of the kind. It neither affirms nor denies the adjectival relations of the abstract

[1] This point is further considered below. Cf. p. 300.

object, but simply attempts to ignore them and to deal with whatever is then left to think about. In some cases, there may, perhaps, be nothing left and the experiment fails altogether. In others, there may be very little left and the experiment, though successful, is unfruitful. In yet others, the result may be the opening out of a wide and rich field for thought, and then the experiment is both successful and fruitful.

If we ask why in some cases the experiment proves fruitful in consequences and in others not so, the answer must be looked for in the intrinsic nature of the subject-matter. The essential requisite is a relational system such that given certain relations others are necessarily determined without reference to further data. Some important developments in this direction depend on serial order. The subject-matter exhibits what Herbart used to call a *Reihenform* or complex of *Reihen-formen*. In ultimate analysis there is serial order wherever the relation of betweenness or intermediacy (Herbart's *Zwischen*) is found. A number lies *between* numbers in a numerical series, a position in space between other positions, a part or a moment of time *between* other parts or moments of time, a musical note of a certain pitch between other notes higher and lower than it. The more complex and systematic is this serial connexion including serial interconnexion and correspondence of series, the more wide and fruitful is the field for abstract thinking.

§ 10. *Abstract Thinking.*—Abstraction may be regarded as a means of eliminating the conditions of the error of ignorance. By abstraction we can so select our object that each step of cognitive process shall proceed merely from the given data to the exclusion of unexplored conditions so that the judgement depends purely on experience *a priori*. Take such a judgement as $7+3=10$. Here equality to 10 is and is meant to be something which merely depends on the nature of 7 and of 3 and on the result of the process of adding. For this reason the judgement is called necessary. It does not therefore follow that it must be true, but only that its truth or falsehood depends on the known data and on

nothing else. Hence, if it is true, it is necessarily true, and if it is false, it is necessarily false. Only one condition of error is excluded by abstraction: error will not be due to ignorance and consequent presumption on partial knowledge. None the less inadvertence and confusion may still lead to mistakes. But even these sources of illusion may disappear when the data from which we start are sufficiently simple. Thus, abstract thinking leads to a large body of knowledge which may be regarded as certain.

It may be said that abstract thinking plays tricks with its abstract object. It does not merely fasten on certain features of the actual world and consider their intrinsic nature, to the disregard of all else. It transforms the object of its selective attention and gives it forms and relations which have not been found in the actual world and perhaps may never have actual existence. The process of mathematical definition which is the very life-blood of the science consists mainly in constructions of this kind. The perfect fluid or the perfect circle of the mathematician are typical examples.

At the first blush, it would seem that in such constructions we are leaving the real world for figments of our own making. But this is not so. All such construction is in its essential import an experimental activity. In it we are active only in order that we may be passive. We operate on the object only in order that we may give it an opportunity of manifesting its own independent nature. And the object always is or ought to be some actual feature of concrete existence. The constructive process has two main functions. It may either be (1) a means of fixing and defining the abstract object in its abstractness, or (2) a way of developing its nature. Constructions of the first kind are merely instruments of selective attention—vehicles of abstraction. They enable us to represent the abstract object in such a way that we can deal with it conveniently and effectively. The conception of a perfect fluid is an excellent example of this procedure. Fluidity actually exists in the concrete inasmuch as fluid substances actually exist. But the mathematician cannot investigate fluidity effect-

ively under the special conditions of its existence in the particular fluids known to him, such as water. For all these fluids are only more or less fluid. They are also more or less viscous, and this introduces a complication which he is unable to disentangle. To meet this difficulty he frames the conception of a perfect fluid. In studying the perfect fluid, he investigates fluidity without reference to the complications arising from the partial viscosity of known fluids. When the conception is once formed, the perfect fluid manifests an independent nature of its own which thought does not make but finds. And whatever may be found to be true of it is true of all particular fluids in so far as they are fluid. It holds good of fluids as such. The body of judgements thus formed expresses the nature of fluidity, and fluidity is an actual feature of the concrete world. Geometrical space is a construction of a similar kind. The geometer, as such, is interested merely in the nature of space and spatial configuration. His only reason for referring to the contents of space is that the conception of figure involves demarcation of one portion of space from another by some difference of content. Otherwise, he has no concern with the particular things which are extended in space or with the physical conditions of their existence. Accordingly, he fixes and formulates his abstract object by framing the conception of a space in which the distribution of contents is to be limited by spatial conditions, and these only. This conception enables him to represent his abstract object in such a way that he can deal with it effectively, unhampered by irrelevancies.

In the second kind of construction, we develop the nature of our abstract object. We begin by distinguishing some general feature of the concrete world which is initially presented to us in certain particular forms. But as soon as we consider this feature abstractly, we discover that in its own intrinsic nature it is capable of other determinations which have not been ascertained to exist in the concrete. Reality belongs to such constructions inasmuch as they express the real nature of a real feature of concrete existence. The determinations which we ascribe to the

abstract object are not figments of our own. They are so founded in the nature of our object as to be necessarily possible. But it is only to this extent that they claim to be real. Geometrical construction furnishes a familiar example. The term *figure*, as ordinarily used, implies demarcation; it implies the bounding off of one portion of extension from another by some difference in the character of the extended contents. Now it may be doubted[1] whether in the physical world or in our own mental imagery extended contents are ever so arranged that their boundaries form perfectly straight lines, or exactly equal lines, or perfect circles, or perfect spheres. None the less these conceptions express the actual nature of space, and to this extent they have an indisputable claim to be regarded as real. If we consider the distribution of the contents of space as conditioned only by the nature of space, it must be possible for adjoining surfaces to bound each other so as to form a perfectly straight line; and the same holds good for other perfect figures. To understand this we must note that all demarcated figure presupposes what we may call undemarcated figure; all delineated lines presuppose undelineated lines. A particle cannot move so as to describe a line unless the path it is to traverse already exists. In any portion of solid space there must be any number of undemarcated surfaces which are perfectly plane, and in each plane there must be any number of undemarcated lines which are perfectly straight and of circles which are perfectly circular. The geometrical possibility of demarcated figures simply consists in the actual existence of corresponding undemarcated figures. From this point of view, such geometrical constructions as the perfect circle are necessarily possible. They express the actual nature of space, and are, in this sense, real. But it is only in this sense that the geometer regards them as real.

It may be said that after all we do not know whether such demarcated figures as the perfect circle ever actually exist. I reply that the geometrician does not affirm their actual existence. What he does affirm as actual is that

[1] I do not affirm that the doubt is ultimately justified.

constitution of space on which the possibility of these constructions is founded. To affirm a possibility is to affirm that certain conditions *A* actually exist, have existed, or will exist, of such a nature that if certain other conditions *B* were actualised, something else *C* would be actualised. *B* is hypothetical. *C* as dependent on *B* is also hypothetical. But *A* is actual; and apart from *A* the hypothetical proposition would have no meaning. In the present instance, *C* is the existence of such demarcated figures as the perfect circle; *B* is the existence of certain physical or psychological conditions; *A* is the actual constitution of space. It is in *A* that the geometrician is interested. Further, his insight in regard to *A* enables him to understand how and why, if *B* were actualised, *C* must necessarily be actualised. Owing to the actual nature of space as cognised by him, *C* is and is seen to be necessarily possible. Even where the connexion of antecedent and consequent lacks this intelligible transparency, it still remains true that every valid hypothetical proposition expresses the actual nature of some specific reality. If certain conditions are fulfilled, this acorn will grow into an oak. This means that the actual acorn as I hold it in my hand is actually constituted in a certain manner. Similarly, the full import of any hypothetical proposition can only be expressed by translating it into a correspondingly specific categorical proposition.

As a last example of abstract thinking we may refer to the science of number. Numbered groups of existing things must be distinguished from pure number. There are, let us say, three eggs in this basket and three terms in a syllogism. Here we have only two distinct groups of three, because there are only two groups of countable things to be numbered. But if we ignore the adjectival relation of number to something else which is counted, we find that an interminable series of groups of three is necessarily possible. It may be said that number must always be the number of something. In a sense, this is true. But the something may be anything whatever if only it is capable of being numbered. Thus pure number is not con-

sidered as an adjective of anything except of the numerable as such. This is equivalent to making it merely an adjective of itself and therefore not an adjective at all. It is not an adjective because the conception of the numerable as such is included in the abstract conception of number itself. Now pure number thus defined is certainly real inasmuch as it has a positive and determinate nature to which our thought concerning it may or may not conform. We can discover arithmetical truths and we can make arithmetical blunders. Further, the field for thought which has pure number for its object is inexhaustible in range and complexity. A mind such as that of Aristotle's deity might occupy itself for ever with abstract number and nothing else to all eternity without exhausting its resources. So long as it was interested in this topic there would be no reason why it should turn to any other.

§ 11. *Certainty* —In the initial statement of our problem stress was laid on the apparent fact that the unreal in erroneous belief is present to consciousness in the same manner as the real in true belief. We have now to point out that this is not always so. It is not so where the essential conditions of the possibility of error are absent. For, in such cases, a question answers itself so as to render doubt meaningless. This holds good for my assertion of my own existence as a conscious being and for such propositions as "2 + 1 = 3" or "Trilateral figures are triangular". In instances of this kind we can raise a doubt only by abandoning the proper question for another which is irrelevant. We may, for instance, ask: How far can we trust our faculties? But inquiries of this sort are futile and even nonsensical. They presuppose a meaningless separation of the thinking process from what is thought of, and then proceed to ask how far the thinking process, regarded merely as someone's private psychical affection, can be "trusted" to reveal a reality extraneous to it. In all *cognition*, what we "trust" is not the psychical process of thinking or perceiving, but the thing itself which is thought of or perceived—the thing concerning which we raise a question.

It is urged by Mr. Bradley that all propositions, except

perhaps certain assertions concerning the Absolute as such, must be more or less erroneous. His reason is that they are all conditional and that their conditions are never fully known. Whatever exists, exists within the universe and is conditioned by the whole constitution of the universe. But if what exists within a whole is conditioned by so existing, no assertion as to what exists is true if stated apart from this condition. This argument seems to involve a confusion. It confuses conditions of the truth of a proposition with conditions of that which is stated in the proposition.[1] When I say, "If this witness is to be trusted, Jones committed the theft", the "if" introduces a condition of the first kind. It suggests uncertainty. When I say, "If a figure is trilateral it is triangular", the "if" introduces a condition of the second kind. It does not suggest uncertainty. My own existence as a conscious being has conditions far too complex and obscure for me to discover. But these conditions do not condition the truth of the proposition that I exist. The inverse is the case. Because I am certain that I exist, I am certain that all the conditions of my existence, whatever they may be, exist also. Be they what they may, they are all logically included in the import of my thought when I affirm my own existence.

Mr. Bradley's contention seems to rest on the assumption that, unless the universe is completely known, every assertion or denial about its contents must be liable to the error of ignorance, or rather, must actually incur the error of ignorance. Since we do not know everything, it is assumed that there always may be, or, rather, must be something unknown which would be seen to falsify our judgement if we knew it. But this view is untenable if we are right in maintaining that there are limits to the possibility of error. Unexplored conditions can affect the truth of a statement only in so far as they are relevant, and their relevancy in each case depends on the nature of the question raised. Suppose the question to be, What is the sum of

[1] This distinction corresponds in principle with that drawn by Mr. W. E. Johnson between Conditional and Hypothetical propositions. Cf. Keynes, *Formal Logic*, pp. 271 *seq.*

two and two? By the very nature of the problem there can be no relevant data except just two and two considered as forming a sum of countable units. It may be urged that perhaps the numbers to be added do not exist, or that they may be incapable of forming a sum. But these doubts become meaningless as soon as we try to count. If there is nothing to count there can be no counting. But the supposition is absurd. Suppose, *per impossibile*, that we fail to find anything to count in the first instance. Our failure may then be counted as one thing and the act of counting it may be counted as another, and this second act of counting as yet another, and so on *ad infinitum*.

To pursue this topic farther would lead outside the limits of the present essay. It is enough here to insist that there is such a thing as logically unconditioned truth. In order to attain absolute knowledge, it is by no means necessary to wait until we have attained an adequate knowledge of the absolute. The truth of judgements concerning what is real is not logically dependent on the truth of judgements concerning "Reality" with a capital R.[1]

[1] I am aware that this essay is likely to raise more questions in the reader's mind than it even attempts to solve. Some of these I deal with in other essays; *e.g.* the relation of the universal to the particular, the nature of the material world, and the nature and possibility of thought as dependent on the constitution of the Absolute. In dealing with these topics, I develop more fully the grounds of that divergence from Mr. Bradley which is referred to in § 11 and implied elsewhere.

XIV

IMMEDIACY, MEDIACY, AND COHERENCE

THE distinction between mediate and immediate knowing seems to me to be of vital importance to the theory of knowledge. But there is one sense in which this distinction may be understood which I regard as founded on sheer fallacy and confusion. In order to make my own position intelligible I find it necessary at the outset to set aside as entirely alien to my own way of thinking this illusory use of the terms *mediate* and *immediate*. I refer to that doctrine of the mediacy of knowledge which is presupposed in the methodological scepticism of Descartes. It may be called the doctrine of "representative contents". It is what Reid assailed under the title of the "ideal theory". According to this view there intervenes between reality and the knower a very peculiar kind of entity called "a content". This content is supposed to have no being except what is constituted by its appearing in consciousness or being present to consciousness. Its being is merely being-for-thought. Hence the content is often simply called a thought or a part of knowledge; the implication here is that we do not think or know reality directly, but only our "thought" or "knowledge of reality". Again, it is sometimes asserted that we can only know things as they *appear* to us; and this is immediately confused with the statement that we cannot know the things themselves, but only their appearances. Thus the curious result is obtained that the things themselves do not appear at all; it is only the enigmatical entities called their appearances which appear. Why do not these appearances require to be represented by yet other appearances?

Of course, I do not accuse the upholders of this doctrine of gratuitous absurdity. They have apparent reasons for their view which no doubt are very deceptive. What they are misled by is the existence of error and of constructive imagination. A man may believe that the earth is flat, although in reality it is round. In such a case it would seem that there must be a mental representation of the earth being flat, to which the reality does not correspond. Similarly I can imagine a centaur, though no centaurs exist. Now, it seems plain, if we are to admit contents of knowledge as distinguished from the content of reality in cases where the distinction is forced upon us in this fashion, we are logically bound to assume a similar distinction in all cases, unless there are special reasons to the contrary. Thus, the logical view seems to be that all knowledge is mediated by representative contents.

This conclusion is partly suggested and in part sustained by conceptualist and nominalist theories of Universals. If all that has real being is merely "particular" or "singular", then the "common nature" shared by members of a class cannot be real. But we certainly appear to think of it. Hence, it must be a mere "content of knowledge" mediating between the knowing mind and reality but forming no part of the reality.

It is error, therefore, and the play of fancy, and universal concepts which give to the theory of representative contents whatever plausibility it may possess. If these can be otherwise explained, this theory becomes a gratuitous absurdity. But *can* they be otherwise explained?

I believe that they can. The crux of the whole problem lies in the theory of Universals. "Conceptualism" is at the root of the whole difficulty. Conceptualist and nominalist theories, when reduced to their lowest terms, are found to involve the assertion that particular existences do not in reality share in a common nature, but are merely thought of by us as sharing in a common nature. Now, it is of course true that there is in reality no such thing as a "horse in general"; but then no one is capable of mentally representing or thinking of a "horse in general". No one can think

of a particular horse which is also the nature common to all members of the class "horses". The class universal is not a "horse in general", but what we call the "nature of horses"; and this is just as essentially an aspect of reality as the particular existence of this or that horse. It is essential to a particular existence to be a particular *instance*. Abolish particular existence and you abolish the universe; but the universe is equally annihilated if you abolish all that we call community of nature between particular existences. To suppose *absolute disparity* between *A* and *B* is to cut off all other possibility of relation between them. All other modes in which the unity of the universe is manifested presuppose that ultimate, unique and irreducible form of unity which we ordinarily name as the possession of *common* character or attributes.

Now, if it be once admitted that class universals, such as redness, human nature, fluidity, etc., are not merely "representative contents" having being only "for thought", the same must also hold good for what we call "possibilities". The most general verbal sign that we use in mentally considering a possibility as such is the conjunction "if"; and the ultimate meaning of "if" depends on the meaning of the alternatives in a disjunctive proposition. "A horse is either white, black or brown, or some other colour." These are alternative possibilities. In order to indicate that we are selecting one of them for special consideration, we use the conjunction "if". The hypothetical (*e.g.* "if this horse were brown, it would be less beautiful") expresses a connexion of possibilities as partial aspects of the same total possibility. Now, if this account of "possibility" is right, the being of possibilities is bound up with that of class-universals. If class-universals are not merely "contents", but belong to the nature of the real universe, the same is true of possibilities. For what we mean by a "possibility" is simply a development of what we mean by a class-universal. Given a general nature we find it intrinsically capable of being exemplified in certain ways, independently of its being actually exemplified in these ways. Given that men have stature, it is possible, relatively to this common

attribute, that a man may be fifty feet high. This, no doubt, from another point of view, is an "impossibility". But this is due to other conditions and not to the nature of the common or general attribute "stature". Possibilities or impossibilities are never absolute, but are always relative to certain class-universals, and they have the same kind of being as the class-universal to which they are relative. They enter into the constitution of the universe on the same terms as class-universals. A pane of glass is brittle even though it never will be broken. The possibility of a stone impinging on the glass is implied in the general nature of panes of glass and of stones as things movable in space; the possibility of the glass being broken is connected with this as part of the same total possibility: the total possibility thus constituted is expressed by saying that "the pane of glass is brittle". That this account of possibilities is not merely arid scholasticism becomes evident when we consider how the nature of actual things is, so to speak, saturated through and through with possibility. Glass is brittle, fusible, transparent, hard; gold is malleable, soluble in *aqua regia*, of a certain specific gravity, etc. Matter is impenetrable, mobile, etc. A man is wise, benevolent, quick-tempered, etc. All these adjectives express ways in which things behave or would behave, *if* certain conditions are or were fulfilled.

If it is once admitted that logical possibilities enter into the constitution of the known reality, and are not "contents" having merely a "being for thought", we can, I believe, show that merely "representative contents" are not required to explain error or the play of fancy. When a man believes something, what he has in mind must at least be a logical possibility relatively to the *general* condition which he is considering. He can only believe what he mentally apprehends. But what he mentally apprehends must be logically possible. What is logically impossible is *pro tanto* not thinkable, and therefore cannot be believed. Now, in reference to any logical possibility which our thought apprehends, we may take up certain alternative subjective attitudes, called belief, disbelief, doubt, or mere imagination. These subjective attitudes do not alter the nature of the

logical possibilities to which they refer. The same logical possibility may be an object either of belief, disbelief, or doubt. I may either treat it as a possibility that is actualised or as a possibility that is not actualised, or I may remain undecided between these alternatives. To treat it as actualised is to *behave* from a practical and theoretical point of view as if it were actual. It is to proceed as if we knew not the mere possibility, but the correlative actuality. In so far as we "hedge" or make reservations there is not full belief.

Thus, error is possible inasmuch as belief outruns knowledge in the strict sense. So far as we merely believe without knowing, our belief is true inasmuch as it agrees with what we should believe if we did know; it is false inasmuch as it disagrees with what we should believe if our belief coincided with knowledge. But knowledge itself is not any kind of correspondence or agreement with reality. The knowing mind as such is in immediate relation not to a "content" having being only "for thought", but to an object having a being and nature of its own.

It follows from this account of the matter, that mere belief, and consequently error, always presuppose knowledge. They are rooted and grounded in knowledge. Error presupposes knowledge of logical possibilities, and this again presupposes knowledge of a common nature in which particular existences share, and this again presupposes acquaintance with actual particulars which are instances or examples of a common nature.

The distinction between strictly knowing and merely believing does not imply that we separate off certain judgements as cases of pure knowledge, excluding entirely the presumptive attitude which forestalls knowledge, and therefore excluding error. It may be that there are such judgements. But this doctrine forms no part of my present contention. Even if we cannot lay on the table any proposition as an indubitable instance of pure knowledge, we may none the less assert: (*a*) that every judgement contains an element of pure knowledge as the essential presupposition of the belief which outruns knowledge; (*b*) that what was previously mere belief becomes gradually displaced by know-

ledge proper as our experience grows in extent and coherence, the range of alternative logical possibilities being gradually more and more circumscribed.

The stricter sense of the term "knowledge" in which it is contrasted with mere "belief" or "opinion" is more or less recognised in the common usage of most civilised languages. Plato is the first to define it sharply in his distinction between ἐπιστήμη and δόξα. But if the term "knowledge" is thus restricted we need some other word which shall include the element of mere belief in our judgements as well as that of knowing in the narrower sense. For this purpose I propose *cognition* and the cognate words *cognitive*, *cognise*, etc. Besides this we may also, where there is no risk of ambiguity, use the knowledge and its cognate words in the wider sense *as well as* in the narrower.

The outcome of our discussion so far is that no knowledge is mediated by contents which have "being only for thought". In this sense of mediacy all knowledge is immediate. Mere belief may perhaps be said to be mediated by knowledge of logical possibilities; but the logical possibilities are not merely "contents of thought". They belong essentially to the real constitution of the Universe. Thus there are no merely representative contents, no ideas intervening between the mind and reality It is the reality itself which appears to us; it is not an appearance (or apparition) of the reality which appears. Cognition is a direct relation of the mind to the Universe.

None the less there is another sense in which cognition may be mediate. Though the cognitive relation in its own intrinsic nature admits of nothing intervening between the mind and reality, yet one bit of cognition may be mediated by another in the following way. It may be that without the cognition of P we should have no cognition of Q; yet if we have acquired the cognition of P in a way which yields no independent cognition of Q, we may in so doing acquire the cognition of Q. This is possible because P is known or believed, truly or falsely, to imply Q. I see, for example, an addressed envelope on the table before me, and I say, "Here is a letter for me". The existence of the envelope with my

address is cognised with relative immediacy; the propositions that the envelope has an inside, and that there is a letter in it, and that this letter is for me are cognised mediately. The existence of the envelope is relatively a datum; that of the letter is for me only an implication of this datum. Again, if I grasp a man's hand in the dark, the presence of an arm and body continuous with the hand is cognised mediately. Through knowing the presence of the warm and active hand I know the presence of a human body to which it belongs; and I have no cognition of the presence of the body except as implied in the presence of the hand. Thus a cognition is mediate in this sense in so far as it comes to us through inference or in some way logically analogous to inference.

This being the meaning of mediacy, it is obvious that not all cognition can be mediate. To affirm that all cognition is mediate in this sense leads inevitably to a thoroughly vicious circle. If mediate cognition could only be mediated by cognitions which are themselves merely mediate, knowledge could never get a start. It is as if one should say that in building a wall every brick must be laid on the top of another brick and none directly on the ground.

The immediate element in knowledge is of two kinds. (1) There is the kind of immediacy which is exemplified by self-evident propositions in so far as they are self-evident. In such judgements as "what is included in a part is included in the whole", or "if some cows have horns and all cows have tails, then some animals with tails have horns", or "if two lines are equal in length to this footrule they are equal in length to one another", or "$7 + 5 = 12$", there is immediate apprehension of relation as founded in the nature of the terms related. All cognition of the implications on which inference depends has this immediate character. In inference the conclusion is mediately known; but the connexion of premisses with conclusion is immediately apprehended. This kind of immediacy is of the utmost importance and deserves careful examination. But I must here pass it by and turn (2) to the immediacy of feeling. This is the immediacy which belongs to pleasures, pains, emotion, desires

in so far as they are actually being felt by someone, and to sensations in so far as they are actually being "sensed" by someone. In it alone we have a direct apprehension of particular existents as they are at the moment existing; to it alone is due the meaning of such words as "now", "here", and "I". I may know *that* another person is feeling a toothache, but I have not the same kind of direct acquaintance with his toothache which I have with my own at the moment when I am feeling it. In the latter case I know the toothache itself, and not merely that it exists. Let us examine a typical example. I am, let us say, lying in bed and dropping asleep. Suddenly I am startled by a loud and prolonged sound resembling that which might be produced by the whistle of a passing train. In the whole previously acquired system of my knowledge there may be nothing from which I could by any logical manipulation have elicited the cognition that this sensation would emerge in my consciousness at this moment; even if I could have found grounds for anticipating it, I may not have attended to them; finally, if I did actually anticipate the occurrence of the sound at that moment, yet the actual hearing of it is not included in and does not issue out of the anticipation of it. It obtrudes itself on consciousness whether I anticipate it or not. I need no ground for asserting its presence because it directly asserts itself.

But in asserting itself, it also asserts more than its own being. It does not present itself in isolation as something self-complete and self-existent. From the outset, it is cognised as part of a system, having its existence only in relation to other parts of the system. The special context to which it belongs may be very vaguely apprehended. But the inquiring attitude expressed verbally in the question, *What is that?* presupposes that it has definite relations within a system even though I fail even tentatively to determine what they are. The initial question, What's that? may be followed by a series of suggested answers: "It must be a passing train; but there are not trains near enough. It is a boy with a whistle; but it hardly sounds like that. It is a bird; but no bird screams in that way. It must be something the

matter with my ear or brain. I do not know what it can be."

Apart from interpretation, classification, and description, what is immediately given cannot constitute an object of thought at all. It is never an object by itself, but only as part of a context. We have no means of defining it so as to draw a line of demarcation between it and its implication. This is impossible because in defining it we must describe or characterise it and because in describing or characterising it we must include its connexion with what is other than itself. If, for example, we ascribe to it any quality or attribute we in so doing regard it as an instance of this quality or attribute and therefore as sharing in a common nature with other actual or possible instances. This is involved in even recognising the qualitative continuity of a sensation in the successive moments of its duration. But just as it is impossible to separate the pure datum from its implications so it is impossible to separate the implications from the datum. The implications are implied by the datum. Apart from it they are not implications at all. That which is interpreted, described, and classified cannot be resolved into its own interpretation, classification, or description.

Let us next consider the logical significance of this kind of immediacy in the systematic development of knowledge. We often hear it laid down as an established commonplace that the ultimate test of truth is "coherence with the system of our experience as a whole". From our present point of view, this thesis cannot be accepted if it is taken to mean that the appeal to immediacy plays no essential part in the process of attaining truth and discarding error. The test of truth is complex, involving both coherence and immediacy as its essentially correlated aspects, neither of them being workable apart from the other.

Reverting to our example, let us examine the judgement, "This sound which I hear is made by a passing railway train". Is the truth of this judgement logically tested merely by its coherence with the general system of our knowledge? It must certainly be admitted that the interpretation of my actual sensation is in part a development of previous cog-

nition, and that so far as this is the case the test of its truth must be found in its coherence with the organised body of knowledge and belief. But, on the other hand, we must also insist that if the immediate datum did not itself admit and require interpretation, no interpretation of it would be possible. If it presented itself in self-complete isolation there would be no connexion between it and the preacquired body of cognition. Preacquired cognitions can be brought to bear on it only because by its own intrinsic nature it raises questions to which preacquired cognitions supply relevant answers.

That the sensation itself is presented independently of previous cognition, I have already pointed out. I have now to add that the interpretation shares in this relative independence. It is only *in part* a development of preacquired knowledge and belief. Previous experience could only yield the judgement: "Sounds of a certain kind heard under certain circumstances probably arise from passing trains". But this is not the judgement with which we are dealing. The sort of judgement required to explain the actual sensation is one affirming particular existence at a particular time and place; for example: "This sound has its source in a train which is now actually in my neighbourhood". The assertion of actual existence contained in this proposition is in no way derived from previous experience. It is derived only from the immediately apprehended existence of the actually felt sensation.

Are we then to lay down the thesis that cognition of particular existence is due to immediate experience, whereas the *nature* of the particular existence is determined by the pre-existing system of knowledge and belief? A moment's reflection will show that this position also is quite untenable. The sensation in its immediacy has a specific nature of its own which cannot indeed be cognised without in the same act cognising its relations to what is other than itself, but none the less cannot be resolved into these relations. And this specific nature of the sensation contributes to determine for cognitive consciousness the nature of its implication—the mode in which it is to be interpreted. The immediate

experience differs in its nature according as the sensation is one of sound or of smell, or, if it be sound, according as it is a rattle, a roar, a groan, or a whistle; with these variations its implications also vary.

As regards the immediate datum itself there can, of course, be no room for doubt or questioning in so far as it really is merely immediate. If we could disentangle its pure immediacy from its implications so as to make it a separately distinguishable object and express our cognition of it in a distinct judgement, this judgement would possess infallible certainty. But this is impossible, and if it were possible it would be useless. It would not contribute anything to the development of knowledge because the resulting judgement would be completely isolated, leading to nothing beyond itself.

It is hopeless and futile to attempt to detach the pure datum from its relations to what is other than itself. But there is another mode of procedure open to us. This is based on the distinction between nearer and more remote implications or connexions of the datum. One implication P is more remote than another Q when we cannot determine what P is without also determining what Q is, though we may determine Q while leaving P indeterminate. We may gradually approximate in our judgements to the certainty of the immediate datum by leaving undetermined the more remote implications and falling back on the nearer. We may thus narrow more and more the range of possible doubt until at last every opening for serious scepticism seems closed and we can only make a formal pretence of doubting. Consider the child's judgement: "I see the moon moving past the clouds". The judgement has its basis in an immediate datum in the way of visual sensation and this immediate element is beyond the reach of doubt. It is once for all fixed and the general system of cognition must accept the terms which it prescribes. The general system of cognition must preserve systematic unity by including and not by rejecting or ignoring it. But this does not mean that the judgement, "I see the moon moving", is beyond question. For this judgement in asserting the datum asserts also a

certain interpretation of it and this may be called in question. Further, it is impossible to disengage the pure datum from what are regarded as its implications and to express it in a separate judgement. But it is possible to analyse the interpretation so as to distinguish more remote from nearer implications; it is possible when the more remote are challenged to take refuge in the nearer until a position is reached from which the further encroachment of scepticism may be more safely defied until at last full security is almost or quite attained. Thus we may substitute for the judgement, "I see the moon moving through the clouds", the more guarded proposition, "I see at least some change in the relative position of moon and clouds". If this is called in question we may approach still nearer to immediacy in the judgement, "A visual presentation which I call that of the moon and another which I call that of the clouds are changing their relative position within my field of visual sensation". Here, if there is any opening for doubt at all it is exceedingly narrow and could only be discovered by an extreme stretch of speculative ingenuity. A similar series of judgements approaching more and more to the certainty of the pure datum may also be obtained by analysis of the proposition, "The sound which I am now hearing is the whistle of a passing train". We may fall back step by step upon the following series of judgements each constituting a closer approach to the impregnable certainty of the immediate datum. (1) This whistling sound is due to some kind of mechanism and not to the vocal organs of any animal or human being. (2) It has at least an external source and is not merely due to conditions within my own body. (3) Whatever may be the conditions of its occurrence, it is at least a sound such as I associate with the whistle of steam engines. (4) At any rate, it is a whistling sound as distinguished, for example, from a rattling, roaring, moaning, buzzing, or whispering sound. (5) Whatever kind of sound it may be, it is at least a sound as distinguished from colours, odours, tastes, or touches such as I may be experiencing at the same time. (6) Whatever its quality may be, this quality is recognisably similar in different moments of its duration.

There is then a sense in which the appeal to the immediacy of feeling yields a test of truth. But we must now hasten to add that it does not, taken by itself, yield the kind of test which we require. It does not, taken by itself, afford a test which can be used in the progressive *development* of knowledge. If we start with a doubtful proposition, it does not, of itself, enable us to make any advance towards removing the doubt. So far as the bare appeal to immediacy is concerned, conjectures will remain as purely conjectural, hypotheses as purely hypothetical as they are to begin with. It does nothing for the gradual displacement of mere belief by knowledge in the strict sense of the term. The utmost of which it is capable is to enable us to sift the complexity of our preformed cognitions so as to distinguish their more doubtful constituents from those which are less open to doubt and perhaps to discover some which may fairly be regarded as beyond the reach of scepticism. It is a further drawback that the approach to certainty is purchased at every step by corresponding attenuation of content. When I assert that "what I hear is a whistling sound", this judgement is less open to doubt, but it is also correspondingly less important than the judgement that "what I hear is a whistling sound made by a passing train". If the second proposition is true, it contains more truth than the first.

The test of truth which is really operative in the development of knowledge includes an appeal to Coherence as well as an appeal to Immediacy. But Coherence by itself avails as little as Immediacy. The working test must include both as mutually complemental aspects.

The futility of mere Immediacy has been already shown. Let us now consider Coherence. Coherence as a test of truth rests (1) on the Law of Contradiction, and (2) on the Unity of the Universe. According to the Law of Contradiction two incompatible judgements, in so far as they really are incompatible, cannot be combined in a single complex judgement. The attempt so to combine them results in a verbal formula which is not a judgement at all, but is mere nonsense so far as the incompatibility extends. It expresses no thought

because there is nothing to think. The combination of words "*X* both is and is not *Y*" imitates the form of a statement, but it is not a statement because it states nothing. Thus, when in the course of our thought we are led to such a formula we must reject one or other of the incompatible judgements or so modify it that the incompatibility is removed. The application of the law of contradiction thus depends on the condition that two judgements are to be combined as constituents of one complex judgement. Unless they are to be thus combined there can be no question of their compatibility or incompatibility. But propositions form parts of one complex proposition in so far as they express different features or aspects of the same whole—the same total object of thought. Any connected discourse may be regarded as a single judgement having for its subject the whole topic to which the discourse refers—what in Logic is called the Universe of Discourse. Thus a narrative of the Adventures of Ulysses consists of a series of judgements interconnected as parts of a single judgement which has "the adventures of Ulysses" as its subject. The interconnexion is indicated by such conjunctions as *and*, *but*, *when*, *then*, *thereupon*, *because*, *therefore*, etc. The whole discourse may be introduced by the sentence, "The adventures of Ulysses are *as follows*", what ensues being merely a detailed development of what is meant by the predicate "as follows", and being therefore itself of the nature of a predicate. Now, if the Law of Contradiction is to be universally applicable, all judgements must be connected in this way. They must all be partial constituents of one complex judgement having one subject or "Universe of Discourse". It is here that the principle of the Unity of the Universe supplements the Law of Contradiction. Whatever is affirmed or denied in any judgement is affirmed or denied as a partial feature of the one all-inclusive whole—the total universe of being. Thus judgements which are true must be capable of being combined in one complex proposition, which may always be introduced by the words, "The universe is such that . . . The universe is such that men are mortal, and apples grow on trees, and Cæsar crossed the Rubicon, and things which are equal

to the same things are equal to each other, and lying is a vice." The development of cognition is the development of a single complex proposition, having the Universe for its subject. It follows that any two propositions, P and Q, that enter into the context of the all-inclusive complex must be either mutually compatible or mutually incompatible. If P and Q are incompatible, the result is nonsense and one of them must be rejected as false. But which? If P is true Q is false, and inversely; but how are we to decide that P is true or that Q is true? Again, if we suppose P to be false, this does not of itself justify us in affirming Q to be true, unless Q is taken to be the mere contradictory of P, and not a proposition having a positive content of its own incompatible with P. If it is false that a man is just six foot high, it is true that he is not six foot high; but it does not follow that he is only five foot high or over seven foot high.

Coherence, however, involves far more than is included in this statement. It rests also on the principle that the Universe contains no *loose* elements. No partial feature entering into its constitution could be other than what it is without correlated difference in other features, which would again involve correlated differences in yet other features, and so on indefinitely. Thus, if anything in the universe is, had been, will be, or could be other than it is, has been, will be, could be, or could have been, the difference would penetrate the whole in its systematic Unity. This statement is, of course, to be taken in a purely logical sense. It does not mean, for example, that the future is determined by the present rather than the present by the future. The principle is that there can be "no difference without a difference". A difference in the present would involve a correspondingly different future; but a difference in the future would equally involve a correspondingly different present. In general, if any true proposition were false instead of true, its falsity would involve the falsity of other true propositions; the falsity of these would involve the falsity of yet others; thus, in the end, the supposed falsity of any true proposition would make a pervading difference to the whole system of truth. Similarly, if any false proposition were true, its truth

would involve the truth of other false propositions in such a way as to affect the whole system. In the same pervasive way the falsity of a true proposition would involve the truth of other propositions which are false, and the truth of a false proposition would involve the falsity of other propositions which are true.

This being so, when we have to determine whether a certain doubtful proposition is true or false, we may assume that if we can acquire a knowledge of certain other propositions which are true, our problem will be solved. But the essential presupposition of this procedure is that there must be a way of ascertaining truth otherwise than through mere coherence. In the end, truth cannot be recognised merely through its coherence with other truth. In the absence of immediate cognition, the principle of coherence would be like a lever without a fulcrum.

This is, of course, too obvious to escape the notice of the acute thinkers who find in coherence the sole test of truth. In reply to such objections they urge that the mode in which the principle of coherence works is radically misconceived when we thus divide our beliefs into two groups, one of which derives its whole ultimate support from the other, and does not in turn yield any support to the other. On the contrary, in any coherent system of judgements, in so far as it is coherent, each component item both sustains and is sustained by the others. In so far as the whole system is coherent, it approaches as a whole to truth, and the truth of the whole is a guarantee of the truth of its partial constituents in varying degrees according as these are more or less indispensable to the systematic structure. Some may have a comparatively loose connexion within the general context so that their falsity would make relatively little difference to the whole. Others again may be structural principles which cannot be supposed false without involving the entire logical fabric in ruin. The more loosely connected judgements derive correspondingly less support from the coherence of the whole; those which are more intimately bound up with the system in its unity derive correspondingly more support from it. The ultimate

principle is that there is only one perfectly coherent system, the complete truth as it would be known to omniscience, and that the development of human cognition consists in a gradual approach to this system as an ideal never completely attainable by a finite mind. Hence the pursuit of truth is identical with the pursuit of coherence, and in proportion as we attain coherence we attain truth. Truth is identical with perfect coherence. But this is not for us. What is possible for us is progressive approximation to truth, and this consists in progressive approximation to coherence.

In criticising this doctrine it is essential to distinguish three propositions which its advocates seem to confuse: (*a*) That the constituents of a coherent system are capable of mutually supporting each other. (*b*) That, in so far as there really is coherence, they always do thus sustain each other. (*c*) That when they do support each other the explanation of this is to be found merely in their coherence within the system and in no other condition.

As regards (*a*) there can hardly be room for debate. Undoubtedly the coherence of partial cognitions in a systematic whole may, and very commonly does, of itself constitute a ground for regarding each of them as true. The more connected and consistent is the testimony of a witness in a law court, the more likely are his separate statements to be true. The mutual corroboration is still stronger when several independent witnesses concur in affording a coherent view of the facts. The law of gravitation is confirmed by its application to explain the motion of projectiles, the course of the planets, the tides, the common pump, etc.; on the other hand, the fact that these phenomena can thus be connected within a coherent system corroborates our view of each of them severally. Nor is there anything exceptional or mysterious in the conception of mutual support. We cannot make one card stand up on end; but if we take two we may prop them against each other at an angle so that each prevents the other from falling. So in human society a number of individuals may enable each other to live by systematic co-operation.

Let us now examine the second thesis (*b*) that wherever there is systematic coherence, there is *pro tanto* mutual support. Is this so? When the question is once distinctly raised it becomes plain that it must be answered in the negative. A proposition may have its truth guaranteed by its connexion with other propositions within a system and yet it may not in its turn be in any degree a source of support to these other propositions. The existence of a hitherto unknown planet, observable at a certain time in a certain position, may be affirmed by the astronomer as required to preserve coherence in the system of his astronomical cognitions. But the judgement that an observer turning his telescope in an appropriate direction at a certain time and place will see a hitherto unobserved star contributes no support whatever to the other propositions on which it is based. It no more helps to sustain them than the second storey of a house of cards helps to sustain the first. When indeed the observation is actually made and the star actually seen as anticipated, then the fact of its being actually seen does corroborate the general system of astronomical knowledge from which the prediction was derived. But the observer's judgement, "I see a new planet", is not the same as the judgement expressed in the prediction that at a certain time and place a new planet will be observable. The judgement "I see a new planet" might have been made if there had been no prediction. It might have been made if the observer had turned his telescope towards that quarter of the heavens without any anticipation of seeing anything novel or specially interesting. Indeed, the judgement "I see a new planet" contains as an essential constituent an element which emerges into consciousness independently not only of the prediction and the grounds on which it is based, but of all other cognitions and their systematic nexus. It contains a nucleus of immediacy in the way of sensations actually experienced at the moment by the observer. What is mediate in the judgement is connected with this purely immediate datum as its description and interpretation. The presence of the purely immediate datum gives to the whole judgement a

relative independence which enables it to be a source of support to the system of judgements from which the prediction was derived. Its power of confirming these judgements depends on two conditions. (1) The description and interpretation of the datum must coalesce with them in one coherent system. (2) The description and interpretation must not themselves be merely dependent on the judgements which they are to corroborate. The second condition is not fulfilled if the observer's only reason for assuming what he sees to be a new planet is drawn from the prediction that a new planet will be visible. On the other hand it is fulfilled inasmuch as the judgement "this is a new planet" is made independently of the prediction and of the special presuppositions on which the prediction is founded. So far as this is the case the coherence of the datum, as described and interpreted, with the coherent development of other beliefs verifies these beliefs. And the support is mutual. The observer's judgement that it is a new planet which he sees is confirmed by its coherence with the preformed system of astronomical cognitions. If he does not know of the prediction at the time he makes his observation, he may suspect that he has made some mistake. But when he becomes aware that what he thinks he has observed is just what he ought to have observed in conformity with astronomical theory, his doubt is removed.

The third thesis (*c*) has already been virtually disposed of in dealing with (*b*). The test of the truth of judgements can never be merely their coherence in a system. To say this is like saying that two cards can prop each other up without taking account of the support which each receives from the table on which it is standing. If a system of cognitions has no guarantee but mere internal coherence it is a "castle in the air".

The judgements which are to support each other by their mutual coherence must *pro tanto* have each a relatively independent support of its own. And this support must in the long run be found in some kind of immediacy—either the immediacy of feeling or the immediacy of self-evidence or both. Both kinds of immediacy are through-

out essential to the development of knowledge. At present it is enough to point out that the development of our knowledge concerning actual existence as distinct from the mere logical possibilities with which mathematics is by some supposed to deal, is only made possible by a perpetual influx of fresh material in the way of sensations and feelings. These data demand incorporation in the same system with other cognitions, but they are not derived from other cognitions. They emerge in consciousness immediately. The test of truth is not mere coherence but coherence capable of including within its systematic unity all relevant data with the specific interpretation appropriate to the specific nature of each of them. It is not mere coherence but coherence together with comprehensiveness. Its value depends on the range and diversity of the relatively independent items which are brought within the coherent whole, and not merely on the degree of their coherence. The coherence which is purchased by ignoring relevant facts is that which characterises the views of a madman possessed by a fixed idea, or of the ingenious liar who supplements lie by lie so as to maintain consistency.

Objections and Alternative Views.

Why, it may be asked, have I taken so much trouble to expound a view which no one is likely to deny? Those who say that coherence is the ultimate test of truth cannot really mean that knowledge grows through a purely internal development in which relatively new cognitions are obtained merely by a logical manipulation of preformed cognitions independently of incoming data. Every one knows that theories are tested by their power to explain facts. If the advocates of the coherence-test do not emphasise this point, it must be because they regard it as too obvious to need extended treatment. On the other hand if they really do intend to ignore or deny the part played by immediacy and the relative independence of facts apprehended by observation and experiment, it scarcely seems worth while to argue with them.

Neither of these alternatives can be accepted. The difference between the view I have put forward and that maintained by the thorough-going advocates of coherence as the ultimate test of truth is not merely a difference of emphasis. They do mean to deny that factual immediacy fulfils the function which I assign to it. The denial of this belongs to the essence of their contention. On the other hand, their position cannot be ignored as undeserving of notice. There is method in their madness, if madness it be. They adduce arguments for what they say which deserve most careful examination.

In the first place it is urged that the immediate ceases to be immediate in becoming mediated. The gradual attainment of truth is also the gradual dissolution of the relative independence and immediacy of what we call *data*. There would be no *data* for an omniscient mind. For an omniscient mind, each distinguishable feature or aspect of the universe would appear as having its being wholly constituted by its connexion within the indivisible unity of the whole. Indeed the apprehension of the part would be absolutely coincident with the apprehension of the whole. To quote Mr. Joachim, "An 'immediate apprehension' is one the grounds of which are not stated. . . . An 'immediate intuition', in short, is a belief which the believer cannot justify, or at any rate has not yet justified, by rational grounds. . . . The difference, *e.g.* between blue and red is for us at first *just* a difference. We feel it, experience it immediately, and there seems no more to be said. But as knowledge grows we can and do mediate it. A *partial* mediation in the case just quoted is achieved when we express the physical conditions of blue and red in terms of precise quantitative distinctions within the identity 'wave lengths of ether'. Undoubtedly there remains in such cases, and perhaps in all cases, a residuum opaque to mediating thought. The universe is one; but its unity is expressed and revealed in an infinity of individual differences which retain for the finite mind their 'irrational flavour', their 'immediacy', however far the work of rational mediation has progressed. But the immediate apprehen-

sion of these individual differences sets its problems to thought, and is not their solution. And though thought cannot by its mediation exhaust the *data*—though finite intelligence cannot entirely overcome the opacity of its material—it attains to truth only in so far as its mediation progresses, and not in so far as its progress is barred".[1]

According to this theory, the relative independence of what we call data and the immediacy in which that relative independence has its roots are merely imperfections incidental to the cognitive processes of finite beings, which disappear as knowledge develops. Now, if it be once admitted that mediacy and immediacy are mutually exclusive opposites, nothing can be said against this. For it is undeniable that the advance of knowledge essentially involves the mediation of previously unmediated data. Hence, if immediate cognition ceases to be immediate in becoming mediated, the attainment of truth must mean the abolition of immediacy; immediacy, therefore, cannot be any part of the test of truth. It merely expresses ignorance or even error. The argument seems irresistible if its presupposition is granted, the presupposition that the immediate ceases to be immediate in becoming mediated. But how can this presupposition be questioned? Is it not self-contradictory to say that mediation and the absence of mediation are mutually compatible? This is indeed a contradiction. But the real question is whether immediacy consists in the absence of mediation. So soon as this question is definitely raised it becomes plain that immediate cognition must have a positive character of its own, and cannot be merely the negation of mediate cognition. Otherwise there would be no cognition except mediate cognition, and immediate cognition would be simply synonymous with blank ignorance. How, then, could it, to use Mr. Joachim's language, "set problems for thought"? or supply "material" to finite intelligence? A datum is something to be interpreted or "mediated by thought". It cannot therefore consist in a mere absence of cognition—in blank ignorance. If it is replied that what we ordinarily call "data" are not

[1] *The Nature of Truth*, pp. 55-6.

purely immediate but contain a large element of mediacy, I answer that this only pushes the question farther back. The cognition is called a datum because what is mediate in it consists in the description and interpretation of an element which is immediately presented—which is not merely known as required to interpret something else, but as something to be interpreted. When I look on the table before me and see what I take to be a match-box, the judgement "this is a match-box" which expresses my present perception undoubtedly contains much unconscious inference. But this mediate element is, so to speak, radiated from a central nucleus of immediacy in the visual and other sensations actually experienced at the moment. This nucleus of immediacy constitutes an original point of departure in the development of knowledge, and it communicates to the rest of the perceptual judgement its own originality so as to constitute it a relatively independent datum.

Now the question at issue is whether immediacy taken in this positive sense can survive even when the relatively immediate judgement becomes mediated by "rational thought". We may show that it can and must so survive, (1) by a direct analysis of the facts, and (2) by consideration of the abstract necessities of the case. (1) When I see the match-box on the table, I may have present to my mind reasons which account for its being there and which would make me expect to see it there. On the other hand, I may have no such reasons; the sight of the match-box may even occasion a shock of surprise and leave me puzzled to account for its presence. But whether I have or have not reasons for expecting to see the match-box, in both cases equally I do see it. In both cases there are immediate presented sensations demanding a certain interpretation. The relatively immediate judgement remains relatively immediate whether or not it is mediated in the way described. This is most instructively illustrated when we start with relatively mediate and pass to relatively immediate cognition. I anticipate, for instance, that when I look in a certain direction I shall see a match-box. As compared

with the actual seeing of the match-box this is a relatively mediate cognition. For the sensations which in actual seeing would be directly sensed are here merely expected on the ground of preacquired knowledge and belief. Their occurrence under the assigned condition is cognised merely as something required to make the preacquired system of knowledge and belief internally coherent. When from this mediate cognition we pass to the actual sensations themselves, what ought to take place? According to the theory immediate cognition is merely defect or imperfection—is merely the absence of mediation. Plainly the transition to immediacy ought to involve no advance, no further step in the development of knowledge. Inasmuch as the actual sense experience has been anticipated in mediate cognition the following immediate cognition has already been included and, so to speak, superseded in advance. But, in fact, the actual seeing does constitute a fresh step. It emerges as a relatively independent and original cognition which *confirms* or *verifies* the anticipation. This is still more obvious if, as may happen, we fail to have the anticipated sensations when we fulfil the required condition. For, in this case, the immediate cognition asserts its own distinct originality by positive antagonism to the mediate cognition. The mediate cognition requires the occurrence of certain sensations under the assigned conditions. It thus, by its own nature, appeals to a certain relevant immediacy as a test of its own truth. If under the assigned conditions the appropriate sensations are not sensed, it is falsified. From one point of view, indeed, it may be said to be self-condemned. But this is only because by its very nature it refers beyond itself to an immediate cognition which as such is relatively original and independent of it.

This passage from mediacy to immediacy, which we call verification or appeal to matter of fact, is just as essential in the development of knowledge as the passage from immediacy to mediacy which we call interpretation or explanation. The immediation of the mediate is just as indispensable as the mediation of the immediate. The two processes

necessarily interpenetrate each other in essential correlation. The interpretation of given data has constantly to be verified by appeal to relevant elements of immediacy contained in new data. On the other hand, hypotheses are verified only in so far as they explain or enable us to anitcipate the facts which verify them. But if the immediation of the mediate is thus co-essential in the development of knowledge with the mediation of the immediate, it must follow that ideally perfect knowledge must be regarded as the limit of progress in both directions. It must be conceived not only as completely mediated but also as completely immediate.

What this means will be best seen when we approach our problem from a more abstract point of view. Our position is that immediate knowledge does not become less immediate by being mediated. Does not this view, it may be asked, involve a contradiction? Immediate cognitions in so far as they are immediate are relatively independent, while in so far as they are mediated they are mutually dependent. How can we avoid admitting that interdependence so far as it extends excludes relative independence, so that where the interdependence is complete relative independence must be entirely abolished? I reply, in the first place, that if this were really so, complete interdependence would itself involve a hopeless contradiction. For interdependence presupposes relative independence. Inasmuch as *b* depends on *a*, *a* must be relatively independent of *b*, and inversely; if, therefore, *a* and *b* are to depend on each other, they must be relatively independent of each other. If the being of *a* is wholly derivative from that of *b* and the being of *b* is wholly derivative from that of *a*, we are confronted with the marvellous performance of the Kilkenny cats, so to speak, inverted. Mutual creation is as absurd as mutual annihilation. It may be said that the parts finally depend on the whole to which they belong and not on each other. The obvious answer is that the whole must be inclusive of all its parts; hence in affirming that any one part is dependent on the whole we affirm that it is dependent not only on the other parts

but on itself; in other words, we affirm that it is relatively independent.

There is yet a second and a more subtle criticism to be met before we can regard our position as secure. The principle on which this criticism is founded is that nothing can enter into new relations without undergoing more or less modification. Nothing can have just the same character as part of a systematic whole which it has in separation from that whole. A patch of colour, for example, is something very different when it appears on an otherwise blank sheet of paper and when it appears as an integral part of a picture. The application to the present question is as follows. It may be admitted that in a sense a relatively immediate cognition is immediate both before and after it is mediated. But this, it is urged, does not touch the really important issue. The vital question is whether we are justified in regarding what is cognised before mediation as simply identical with what is cognised after mediation. Can what is apprehended in detachment from a systematic context of presuppositions and implications survive unaltered as the content of a cognition in which it appears as an element within this systematic context? This, it is maintained, is impossible. But the mediate cognition is admittedly a higher stage in the development of knowledge than the unmediated. Hence, so far as they differ, truth is found in mediation and not in "*isolated*" immediacy. The inevitable corollary of this doctrine is that all judgements in so far as they are unmediated must be false. And since no judgement of a finite mind can be completely mediated, it follows that every human judgement must be more or less erroneous. The savage judges that flint when struck emits sparks. But in so judging he is unaware of the vastly complex system of conditions on which this phenomenon has been found by modern science to depend. It is therefore assumed that he cognises it as existing in isolated independence dissevered from what is in reality its inseparable context. So far as he does this, his view is erroneous. Inasmuch as cognition is immediate, it is not only immediate but isolated, and isolated immediacy essentially involves falsity.

Falsity is displaced by truth only as mediating thought advances; hence the test of truth is ultimately coherence alone, and not immediacy at all. "Every truth", says Bradley, "because incomplete, is more or less erroneous. And because the amount of incompleteness remains unknown, it may conceivably go so far as to destroy the judgement".[1] "In the end, no possible truth is quite true. It is a partial and inadequate translation of that which it professes to give bodily".[2] The argument is that every human judgement asserts in detachment from its presuppositions and implications something which has no being in such isolation. It is thus "a partial and inadequate translation of what it professes to give bodily". In other words, it is false.

This reasoning involves two steps which must be clearly distinguished. The first is expressed in the general principle that a judgement in becoming incorporated in a new context of judgements must itself undergo some kind of modification. The second is contained in the assumption that the modification must be such as to make the prior unmediated judgement incompatible with the subsequent mediated judgement, so that, inasmuch as they differ, one of them must be false. This second assumption seems to me erroneous. Before proceeding to examine it, it will be well to define clearly the exact nature of the question at issue. The thesis with which we have to deal is that a relatively unmediated judgement is as such necessarily incompatible with the same judgement as mediated. We are only concerned with cases of successful mediation. We have nothing to do with instances in which a judgement has to be expressly rejected or reconstructed because it will not fit into the growing system of knowledge and belief. We may take by way of illustration the following two judgements: (1) It is possible to produce sparks by striking flint; (2) the sparks thus produced are fire which is already contained in the flint before it is struck. The first proposition is

[1] *Appearance and Reality*, p. 536.

[2] *Ibid.* p. 544. Bradley makes a reservation in the case of certain propositions expressing the general nature of reality, but this reservation makes no essential difference to the question at issue.

common to the primitive savage and to modern science. Modern science has done much towards explaining it, but has found no ground for denying it. If, therefore, it has been falsified through the advance of knowledge, it has been falsified merely by being successfully mediated—merely through a discovery of its presuppositions and implications. It is otherwise with the second proposition. This has been falsified in a fundamentally different way. It is condemned as false because it cannot be mediated, because it refuses to take its place in the system of judgements which constitutes modern science.

The view that a judgement is falsified merely by being mediated certainly wears the appearance of a paradox. Apart from logical or metaphysical theories, we should all naturally say that the savage's assertion that " sparks may be produced by striking flint" is none the less true because he does not know how and why this is so. Explanation will only serve to confirm its truth; the way to show its falsity is to show that it cannot be explained. In entering into a new context of judgements it does indeed undergo modification, but the modification is not of a kind which involves its previous falsity. It is what we describe as the acquirement of new significance, importance, or interest. But significance, importance, or interest cannot, in any relevant sense, be ascribed to false propositions. When we speak of the importance of a false proposition we mean the importance which it would possess if it were true, and which may be wrongly attributed to it by those who believe it. Thus judgements can acquire fresh significance only if they are true. Hence the acquirement of fresh significance cannot imply that they are initially false.

How, then, is it possible for such writers as Bradley to maintain the opposite view? Why do they hold that a relatively unmediated judgement is, as such, false? Their fallacy seems ultimately to lie in a confusion between unmediated judgement and what they call *isolated* judgement. In an unmediated judgement, so far as it is unmediated, we affirm something without knowing what its conditions are. Hence it is inferred that we affirm it without affirming its

conditions, and this means that we affirm it as unconditioned: a partial feature of the universe is apprehended in isolation from the whole to which it belongs and therefore not as being a part but as a self-contained unity detached from its connexions. It is as if the individual knower in virtue of his finite nature had the miraculous power of carving out for himself separate portions from the perfect unity of the universe and presenting them to himself as thus dissevered from the whole. This power of "mutilating" reality, as Mr. Bradley calls it, is what fills so important a part in Spinoza's system under the title of "Imagination".

The vital question is whether affirming something without knowing what its conditions are necessarily implies a failure to affirm the unknown conditions. At first sight it may seem that this must be so; for how can we affirm what we are ignorant of? But a closer scrutiny of the nature of knowledge reveals a way of escape from this difficulty. The difficulty arises from a failure to take account of the distinction between implicit and explicit cognition. The meaning of this distinction will be best brought out by an example. *A* says to *B*: "I give you whatever money is contained in this box, provided that it does not amount to more than five pounds". *A* is ignorant what money is in the box. There may, so far as he knows, be no money in it, or there may be sixpence in coppers, or two sovereigns. *B* now opens the box and finds eight sixpences, a half-crown piece, and a sovereign. Both *A* and *B* then rightly recognise that it was precisely this sum in this form which *A* promised to give *B*, although when he made the promise he did not know what it was. In promising to give *B* whatever money was contained in the box he promised implicitly to give him eight sixpences, a half-crown piece, and a sovereign. Initially he thought of the money only as determined by its being in a certain relation to something else—by its being contained in the box. But this determination leaves open a wide range of alternative possibilities—a wide range of alternative answers to the question—What money? and how much? None the less the maker of the promise has committed himself in advance to

accept whichever alternative is actual. When therefore the box is opened and a certain possibility is found to be actualised, his original statement is indeed further defined and so acquires a new significance; but it is not in any degree falsified. If he really meant what he said before the box was opened, he means it still, and not anything incompatible with it, after the box is opened.

This holds for all judgements. Whoever affirms anything, thereby affirms all its conditions. In so far as he knows them and has them present to his mind at the moment, he affirms them explicitly; in so far as he does not know or is at the moment oblivious of them, he affirms them implicitly. This is clearest where the mental attitude is distinctly interrogative. For, in this case, there is an attempt to find out what the unknown conditions are, and this very attempt presupposes that they are implicitly though not explicitly cognised. They are cognised as being the presuppositions and consequences of what is relatively a datum. As presuppositions and consequences of the datum, they are taken to be continuous with it; they are therefore taken to have a being as determinate as it has. But what their precise nature is remains as yet more or less completely undetermined for the inquiring mind. Inasmuch as this is so, they are asserted not explicitly but implicitly. The questioning attitude is constituted by interest in making explicit what is thus implicit. As Plato long ago pointed out, we cannot seek to know anything unless, in a sense, we already know what it is that we seek to know.

We cannot stop short at this point. It is not only in actual questioning that the implicit assertion of conditions is presupposed. It is also presupposed in the mere possibility of a question being raised. It is presupposed in the possibility of mediating the relatively unmediated. If anything were really apprehended in isolation, it would neither require nor admit of explanation or interpretation, or even description. It would be cognised as something self-existent and self-contained. In other words, it would be cognised not as part of the universe but as being itself a

universe. The thought of assigning its conditions could never arise, because it would be apprehended as unconditioned. It would be cut loose from all communion with whatever is other than itself, and this means that mediating thought could not in its case ever get a beginning. No questions could ever be answered concerning it, because none could ever be asked. What has once been presented in *isolated* immediacy must remain for ever in its "sacred aloofness". The systematic development of knowledge is possible only because cognition of a part of the universe is not merely cognition of part but cognition of a part *as such*, and therefore partial cognition of the whole from the point of view of the part. It is cognition of the whole as implied in the recognised incompleteness of the part.

We must, therefore, agree with Mr. Joachim that "incomplete or fragmentary thinking is not *as such* false; nor is the mind, through which the complete truth obtains partial expression, thereby in error".[1] But it is strange that he fails to recognise how irreconcilable is this position with the view on which he insists throughout the greater part of his book. For instance, he occupies much space[2] in arguing that no human judgement can be quite true, and the only reason which he adduces is that in no human judgements are presuppositions and consequences completely apprehended in articulate detail. Take, for example, the perceptual judgement, "This tree is green". "What it affirms", says Joachim, "is subject to a complex mass of conditions unexpressed and yet implied. It draws its meaning and its truth from an inarticulate background of this kind. The judgement of fact . . . demands the articulate expression of this background in the form of an explicit system of judgements. And yet in that system the original judgements as formulated in isolation, and as the mere statement of fact, would no longer persist".[3] Now of course we agree that the judgement does not persist "as formulated in isolation and as the mere statement of fact".[4] What we assert, and what Mr. Joachim himself asserts in other

[1] *The Nature of Truth*, p. 160. [2] *Ibid.* p. 85. [3] *Ibid.* p. 107.
[4] *Ibid.* p. 107.

passages, is that the judgement never is formulated in isolation, never is, in the required sense, a mere statement of fact. In affirming the fact we affirm all its presuppositions and consequences whatever these may be. The articulate definition of these presuppositions and consequences cannot falsify the original judgement. For it only makes explicit what the original judgement asserts implicitly. And Joachim's elaborate discussion only serves to make this plainer. "The brute fact that Cæsar crossed the Rubicon in 49 B.C. is pregnant with significance, owing to the concrete political situation within which it took place. But the actual event was not a nucleus of 'brute fact' encased, solid and distinct, within a surrounding complex of conditions. It was Cæsar, at the head of his army and animated by conflicting motives of patriotism and ambition, who crossed. . . . This—and more—is the meaning of the historical judgement in its proper content, its *definite* meaning. . . . We can be sure, at any rate, that the actual happening contains no *bare crossing of a stream by a man* in the abstract as a solid grain of fact, separable from a complicated setting which particularises it." It is indeed true that the actual happening can contain no such solid and separate "grain of fact". But then it is equally evident that no one ever did or could assert fact as isolated in this way. No one ever did or could affirm the "bare crossing of a stream by a man in the abstract". No one could affirm that a stream flowing in no determinate place at no determinate rate and without any determinate width was crossed by a man living at no determinate time, neither definitely bald nor having any determinate number of hairs, neither five foot nor six foot high nor of any other definite stature. In saying "a man crossed a stream" we may be ignorant where the stream was situated or how tall the man was, and so on with other specific determinations. But our ignorance is not denial. On the contrary we implicitly affirm what we cannot explicitly define.

If this be so, it would seem that the judgements of finite minds are not necessarily false merely because they have an "inarticulate background", or because they would be

transformed for perfect knowledge. The transformation for perfect knowledge may consist only in a complete insight into their presuppositions and implications. But such a transformation does not involve the falsity of finite judgements. On the contrary it is possible only in so far as they are true. Hence, apart from more special reasons to the contrary, it may be that for perfect knowledge sparrows fall to the ground and the hairs of our heads are all numbered.

XV

REAL BEING AND BEING FOR THOUGHT

WHENEVER we think of anything we think of its having a being which does not merely consist in its being thought of. The being thus mentally referred to may be either asserted or merely supposed: if it is asserted the assertion may be either true or false; if it is merely supposed, the supposition may or may not be fictitious. But in all cases the mental reference is not merely to the fact that the object is present to consciousness, but to some other kind of being which it is thought of as possessing. When I believe or disbelieve or suppose that a centaur actually exists, I must think of its actually existing. And what I mean by this is certainly not the fact that I think of it. On the contrary, it seems to involve an absurdity to suppose that what I think of has no being except the being thought of. For how can the being of anything be merely constituted by its being related to something else? Is it not a logical precondition of its being related to something else that it should have a distinct being of its own?

Indeed, it may be safely assumed that this position would never have been called in question, if there had been no erroneous judgements or fictitious suppositions. But in error and fiction it seems as if something were asserted or supposed which really has no being. Hence we are led to regard mere being for thought as distinct and separable from real or "transcendent" being. This view, however, when we examine it closely, turns out to be radically indefensible, even apart from the preliminary difficulty of something owing its whole being to its relation to something else. So

far from explaining fiction and error, this view renders them both inexplicable; and it involves true judgement in the same difficulty. We have to insist in the first place that when once we have committed ourselves to the separation of real being and being for thought, we cannot confine it only to the case of error and fiction: we must extend it to all true judgements also, except, perhaps, those which assert the existence of a present experience of the individual. So far as thought transcends immediate experience, no intrinsic character is assignable by which we can distinguish the general nature of the objects of false judgements from the general nature of the objects of true judgements. If the possible severance of what really is and what is thought is once admitted in some cases, it must be admitted in all. It may be urged against this that some propositions are not only true but evident, and that where there is evidence what is asserted must have real being. Now it may perhaps be conceded that what is evidently implied in what really is must itself have real being. But this avails us nothing, unless we are already supposed to have a direct apprehension of some relevant reality. Apart from such direct contact with real being, evidence itself must be regarded primarily as an object of thought, so that for it also it is possible to raise the question whether what has being for thought has also being in reality. This question is always relevant except, perhaps, in the limiting case in which what is thought of is also existentially present in the mind, like a pain which is actually being felt. Allowing for this limiting case, we may say generally that the severance between thought and reality, if it is admitted at all, must be consistently adhered to both for true judgement and false. But if it be consistently adhered to, the distinction between true and erroneous judgements inevitably becomes an external distinction. The only account we can give of it is that when a judgement is true there is some real being which agrees with, conforms, or corresponds to the object of the act of judging; and that when the judgement is false the object of the act has no such real counterpart. We cannot escape from this conclusion by an attempt to substitute identity for correspondence. We do not escape by

saying that when we believe *A* to exist, then if it does exist, the *A* which exists is the very same *A* that we believe to exist; and that if it does not exist, what is non-existent is again the very same *A* which we believe to exist. For on the view we are examining the alleged sameness of *A* does not prevent its having two sides or aspects separable from each other—*A* as object of thought, and *A* as really existing: and between these two aspects the relation is one of agreement or disagreement, not identity. Thus, in the view we are examining, what is thought remains severed from what is.

But this view will not bear critical scrutiny. Instead of explaining the possibility of truth and falsity, it makes both inexplicable. Truth does not consist in the mere agreement or correspondence of what is thought with what really is, and error does not consist in the mere disagreement or non-correspondence of what is thought with what really is. To constitute truth or error, the agreement or disagreement must be an agreement or disagreement not with any reality but with some reality which the mind means or intends to describe or characterise in the act of judgement. Unless this reality as such is itself an object of thought the distinction between truth and error loses all meaning. The act of judging either rightly or wrongly must be ultimately concerned with what really is: what really is must be rightly or wrongly characterised, and for this to be possible what really is must itself be directly present to thinking consciousness and not something which merely represents it or stands for it. When I assert that "this match box is empty", the fact of some other match box being empty does not make my judgement true, and the fact of some other match box being full does not make my judgement erroneous. It may be that what I call a match box is not a match box, but something else. But, even if I am so far mistaken, there must still be some real being concerning which the mistake is made, and this must be an object of my thought in making the mistake. The article in my hand may not be a match box, but it is a portion of matter. Again, if we suppose that I am dreaming or under a complete hallucination, still there is a reference to surrounding space, which, if not occupied in the way I

believe, is either otherwise occupied or unoccupied. Finally, if there is no space and consequently no bodies in it, there must be a reference to some reality which is mistaken for space and bodies. In the long run we always immediately think some reality which is indispensably required to supply the basis of truth and error. Further, the reference is in general not merely to the real universe as a whole, but to some special portion or aspect of it, which, if it is not determined in the way we believe, must be determined in some alternative way.

If this position is correct, the condition of erroneous judgements and of such true judgements as are by their intrinsic nature abstractly capable of being erroneous is as follows: Some real being as such is directly an object of consciousness; this real being is capable of alternative determinations; and one of these is fixed on by the mind in the act of judging as an alternative which is fulfilled[1] or, in the case of negative judgements, which is not fulfilled. It seems to follow that if in the act of judgement the mind has any objects which have being merely for thought, these must be what are called alternative possibilities. On the other hand, if alternative possibilities are not "creatures of the understanding", but belong to the constitution of reality, then we may assume that whatever is thought of has some kind of being distinct from its being thought of, or at least that this holds for all objects of the act of judging.

To consider an alternative merely as one alternative among others is vitally different from believing in it. But wherein does the difference consist? Does it consist in any difference in the object presented to consciousness? Or to be more precise, is there any other difference in the object besides its being, in the one case, something merely supposed, and in the other, something asserted? I cannot find that there is. It will not do to say that in mere supposition we only think of an alternative, whereas in belief we think of it as fulfilled. For we cannot think of an alternative at all

[1] I say "fulfilled" rather than "realised" or "actualised", because real being is here contrasted, not with possibility, but with mere being for thought; and because "actuality" naturally suggests particular existence.

without thinking of its being fulfilled. A possibility and its fulfilment are so related that the thought of the first involves the thought of the second. The possibility of an alternative is the possibility of its being the realised alternative. Nor will it do to say that in belief or judgement we not only think of a possibility being fulfilled, but actually have present to consciousness the fulfilled possibility itself. I do not doubt that this sometimes is so. But where it is so the judgement is necessarily true, and its object necessarily real. Hence the case in which the fulfilled possibility is itself an object of consciousness lies outside our present inquiry. For we are here concerned only with erroneous judgements, and with such true judgements as are not beyond the reach of possible doubt. But for these it seems to hold good generally, that if we consider only what is directly asserted, as distinguished from the grounds or conditions which induce belief in it, this is, both in the case of truth and error, the fulfilment of a possible alternative, and not the fulfilled alternative itself; and the same holds also for mere supposals as contrasted with judgement. This being so, we find ourselves confronted by two questions: (1) What sort of being belongs to a possible alternative? (2) Why does belief in a possible alternative's being fulfilled, in distinction from the mere supposal of its being fulfilled, involve the antithesis of truth and error? As regards the first problem, it may appear obvious that alternative possibilities have being only for thought, and not in the real world. "How in the world", says Mr. Bradley, "can a *fact* exist as that strange ambiguity *b* or *c*? We shall hardly find the flesh-and-blood alternative which answers to our 'or' ".[1] This would be unanswerable if there were no kind of real being except particular existence. But the prejudice in favour of actuality, as Meinong calls it, is unjustifiable. Other modes of being, besides particular existence, are essentially involved in the constitution of the universe. For instance, the fact that *c* is a particular existent is not itself a particular existent. Particular existents, again, are related to each other in endlessly diverse ways, as sharing in a common nature, and so belonging to classes, sorts, or kinds.

[1] *Logic*, Vol. i. pp. 46-47.

But neither a class, nor the peculiar unity of the members of a class which we call their sharing in or being instances of a common nature, is itself a particular existent. Are we to say, then, that really nothing can, in any respect, share a common nature with anything else, and that there are really no sorts or kinds or classes? We might as well attempt to suppose that there are only universals and no particular existents. In both cases, equally, there is no universe left. This bears immediately on our present problem. For if generalities belong to the real constitution of the universe it follows that alternative possibilities must also belong to the real constitution of the universe. For it is inherent in the very nature of what is general to admit of alternative specifications. On the other hand, there are no alternative possibilities which are not essentially relative to some generality as their basis. To quote Mr. Bradley, " 'Man, woman, or child', have a common basis in 'human being'. 'In England or America', 'alive or dead', commit us to the statement 'somewhere not elsewhere', and 'organised being'. And so, if we call a man 'bad or good', we say at least he is a moral agent." [1] In a disjunctive judgement what is asserted is that a certain general condition, or group of conditions, admits of certain alternative determinations and of no others. The view that what it asserts is ignorance on the part of the person who makes the judgement seems quite untenable. For the only ignorance which it can be supposed to express is ignorance as to which of a group of alternatives is realised. But this presupposes the assertion that there *are* these alternatives. We must affirm "either *A* or *B* or *C*", before we can affirm that we don't know which. Further, in purely classificatory disjunctives, there is no suggestion or implication of ignorance at all. There is nothing of the kind, when we assert that "any triangle is either equal-sided or unequal-sided". What is asserted is that these are all the alternatives which the general nature of triangles admits of. The statement that "*this* triangle is either equal-sided or unequal-sided" does indeed naturally suggest ignorance as to which it is. But even here the ignorance presupposes the

[1] *Logic*, Vol. i. p. 130.

further judgement that, inasmuch as it is a member of the class triangles, it is one or the other. And when we know which it is the disjunctive proposition is not thereby falsified. In coming to know which alternative is fulfilled in the special case, we do not cease to know that the fulfilled alternative is one of two, which any instance of triangularity, as such, admits of. Otherwise, the categorical conclusion of a disjunctive syllogism would contradict the disjunctive premise. In "*A* is either *B* or *C*; it is not *B*; therefore it is *C*", the conclusion "*A* is *C*", would be incompatible with the premise "*A* is either *B* or *C*".

Another consequence of this position is the relativity of various series of alternatives to correspondingly distinct general conditions, or groups of conditions. Just as *A* may be greater than *B*, although it is less than *C*, so something may be possible in relation to one generality, and impossible in relation to another. It is geometrically possible for a man to live and walk erect who is half a mile high, retaining in other respects the ordinary proportions of a human being. But it is not mechanically possible; the alternative which general geometrical conditions admit of is other than any of the alternatives which general mechanical conditions admit of. This relativity of possible alternatives to variable generalities seems to supply a key to the difficult problem how impossibilities, as such, can be objects of consciousness. It would seem that an impossibility can be thought of only because, from another point of view, it is a possibility. We may take, as a crucial case, the formulation of the law of contradiction. In one sense, we cannot apprehend the union of two contradictory propositions in a single proposition; for it is in the act of failing to do this that we become aware of the law of contradiction as self-evident. On the other hand, if we could not think of the union of contradictory propositions at all, we could never recognise it as an impossibility. The solution of the difficulty seems to be this: The general character of the propositions, considered merely as propositions, leaves open the alternative possibility of their being combined or not combined. Hence, from this point of view, we can think of their union as a

possible alternative. It is only when we go on to develop our thought in the attempt to bring before the mind the special form which this alternative would assume under the special conditions, that we find our path barred. We can think of the two propositions being united in a single proposition. But when we ask what proposition would fulfil the special conditions, we find, not a thought, but a blank failure to think. It is in and through this mental act that we recognise the proposition as an absurdity.

In distinguishing various modes of being, I by no means wish to suggest that any of them can be isolated from the others. On the contrary, they are inconceivable except in correlation with each other. Their being is being within the one system of universal reality. To assert that anything in any sense *is*, implies that it is an integral part or aspect of this system. There is no possibility apart from generality, and, in the end, there is no generality apart from particular existence. On the other hand, there is no particular existence which is not a particular case or instance; none, therefore, which is unrelated to other particular cases or instances in that unique and ultimate way which we name participation in a common nature. And there is no common nature which does not, as such, admit of the alternative specifications which we call possibilities.

On the basis of the preceding analysis, I have to show that neither erroneous judgements, nor right judgements which are capable of being wrong, nor mere supposals, whether fictitious or not, involve the presence to consciousness of any object which has being merely for thought, and does not in any way enter into the "transcendent" constitution of reality. The case of error is of course of central importance. What then is necessary and sufficient to constitute mistake? First, some reality must be present to thought, and this reality must have and be thought as having a general nature capable of various alternative determinations. In the thought of this reality, and the belief in it, there is no error; neither is there error in the belief that some one at least of all its possible alternative determinations is fulfilled, provided no decision is made as to

which this is. Nor, again, is there any error in merely thinking of some special alternative as such, which of course includes the thought of this alternative being fulfilled, inasmuch as it includes the thought of its being identical with the fulfilled alternative. Error, or the risk of error, first arises when the mind not only thinks of a possibility being fulfilled, but also *believes* in its being fulfilled. But this does not involve any new object of thought; it only involves a new mental act in relation to the same object. When we believe in a possibility being fulfilled, our belief is false when the alternative asserted is other than any fulfilled alternative. The belief is true when the alternative asserted is coincident with the fulfilled alternative. Further, explanation of this requires an examination of the mental act which we call believing, when its object is merely a possibility's being fulfilled. The object is not then the fulfilled possibility itself. What is thought of is some reality as being determined in a certain way among other possible ways, but the determinate reality itself is not apprehended in its determinations. There is a difference, for instance, between thinking of a sound being heard and actually hearing a sound, or between thinking of a toothache as about to be continued and being directly aware through experience of its continuation. Now the vital point is this. The mental attitude of believing in a possibility being fulfilled, so far as it differs from that of disbelieving, doubting, or mere supposing, is, both in itself and in its influence on the further course of thought and conduct, similar to what it would be if we did not merely think of an alternative being fulfilled, but of the fulfilled alternative itself. Hence, when an alternative before the mind is other than a fulfilled alternative, the belief is in disagreement with reality. It does not agree with the reality to which the mind itself refers as its standard in the act of believing, as what requires to be specified in some determinate way. In other words, the belief is false.

It lies beyond my present purpose to discuss the conditions, logical or merely psychological, which determine beliefs whether false or true. I shall therefore only make

some general remarks on this point, bearing especially on the distinction between judgements and mere supposals or "Annahmen". The distinctive character of the judgement asserting the fulfilment of one among alternative possibilities is that the alternative asserted more or less completely and persistently preoccupies attention to the disregard of other alternatives, as if there were no others. Hence it influences thought and conduct as if it were the only alternative. One important case is where what is really only one alternative among others is from the outset presented to consciousness by itself, without any suggestion that there are others. Then the thought of the alternative at once coincides with belief in its fulfilment. Thus, to borrow an illustration from Spinoza, the thought of the actual existence of a winged horse is also a belief in its actual present existence, when nothing is suggested to the mind which excludes its actual present existence. As Spinoza notices, this is a common condition of belief when we are dreaming. A vivid dream picture suggests the actual presence of a winged horse, and since, owing to the peculiar condition of the dream-state, there is no counter-suggestion, the dreamer believes in the actual presence of a horse with wings. The absurd beliefs suggested to subjects in the hypnotic trance are similarly conditioned. For the most part, however, the mind initially apprehends an alternative as one among others, and the alternative is believed in because of conditions, logical or merely psychological, which give it a predominance such that it is treated as if it were the sole alternative present to consciousness, with correspondingly predominant influence in determining the subsequent development of thought and conduct. When this does not take place immediately there is a shorter or longer interval of doubt or interrogation in which alternative possibilities are contemplated, and the question is raised as to which is realised; but none of them is decidedly and persistently fixed on. This interrogative attitude is that of doubt. It agrees with that of mere supposal, inasmuch as an alternative is contemplated merely as such, without being treated as if it were a fulfilled alternative. But mere

supposal is further characterised by the absence of the mental act of questioning. There is in mere supposal, as distinguished from doubt, no attempt to decide which alternative is to be taken as realised. This account seems to me to cover all the cases which Meinong, in his epoch-making discussion of this subject, brings under the general head of "Annahmen".

To support this position adequately, it would be necessary to deal in detail with all the various kinds of Annahmen. Perhaps, however, it will suffice for our present purpose to select as a crucial instance the play of fancy or imagination. Consider, for example, a fictitious narrative such as Thackeray's *Vanity Fair*. Both the author and reader of this book start with the implicit presupposition of certain general conditions of human life at a certain time and in a certain locality and among certain classes of society. These general conditions in their generality admit of an indefinite multitude of alternative developments in detail. In the fictitious narrative, the mind follows out one of these. The process of invention is at bottom a process of discovery, the discovery of a special development of which the general conditions are capable. And in so far as the mental attitude is purely one of supposal,[1] the special development is regarded merely as being one alternative among others, without any question of its being realised. So soon as this question is raised, there is either doubt or positive or negative judgement.

In conclusion, I may refer to the obvious analogy between supposal and merely feeling an inclination towards a certain line of action, between doubting and practical deliberation, and between judgement and voluntary decision. The parallel may be suggestive to the pragmatist.

There may still appear to be one difficulty remaining in the way of the view that no object has being merely for thought. How, it may be asked, do I explain negative judgements? Can the word "not" stand for anything but a creature of the understanding which has no place in the universe of real being? The problem is a very old one, and

[1] Perhaps it never is completely so.

I can only repeat an old solution. Plato in the *Sophist* proposes the question, "How can non-being be?" and answers it in a way which I find essentially satisfactory. Non-being is otherness, and the word "not" means "other than". "Red is not blue," or "Chalk is not cheese", mean the same as "Red is other than blue", or "Chalk is other than cheese". "Birds do not suckle their young", means "Whatever attribute a bird may have is other than that of suckling its young", or "Every bird is other than any animal which suckles its young". "Perfect circles do not exist" means "Perfect circles are other than any figure belonging to a physical thing actually existing." "Straight lines cutting a circle in more than two points do not exist", means that such lines are other than anything which has being as a geometrical possibility. There is no example which cannot be similarly treated. But if non-being is otherness, it certainly belongs to the constitution of the real universe. It would be a queer universe in which nothing was really other than anything else.

Note on the Views of Mr. BRADLEY *and* Mr. RUSSELL.

I feel that the foregoing discussion needs to be supplemented by some reference to the relevant views of Mr. F. H. Bradley and of Mr. Bertrand Russell. As regards the question at issue, my divergence from Mr. Bradley is most pronounced and emphatic. My position is, that whatever is thought, in so far as it is thought, is therefore real. His position is, that whatever is thought, in so far as it is thought, is therefore unreal. The ground of this point-blank opposition seems to lie in the different view which we take of the distinction and connexion of thought and feeling. For me, thought and feeling, though necessarily united in the inseparable unity of knowledge, are radically disparate in their nature, so that if once we suppose them separate, they could never have anything to do with each other. Mr. Bradley, on the contrary, treats thought as being feeling transformed in a certain way. More precisely, he regards thought as "mutilated" feeling. The mutilation ultimately

consists in the divorce of the nature or "content" of feeling from its existence. Further, the whole development of thinking consciousness resolves itself into an endeavour to reconstitute the unity which it has destroyed. But, as its own being is constituted by the severance of the terms which it attempts to bring together, its success would be suicide. It follows inevitably from this theory that thought must, as such, be unreal. For, thought being feeling transformed, what is thought can only be real in so far as it is felt. Now, the only reality which can belong to feeling, as such, is actual existence, such as belongs to a toothache in actually being felt. But the mutilation of feeling which yields the object of thought as such, deprives that object of all claim to this sort of reality. Neither the "that" severed from the "what", nor the "what" severed from the "that", can actually exist as a particular toothache exists in being felt. Hence the object of thought must be unreal just because it *is* an object of thought.

My divergence from Bradley is thus a divergence in the ultimate presupposition with which we approach the problem of truth and error. My disagreement with Russell, on the other hand, is, comparatively speaking, one of detail. The following fundamental propositions are accepted by both of us:—(1) Whatever is really before the mind as an object of thought (whether or not it is also existentially present as an immediate experience) really is, and is not *merely* thought of. (2) Hence truth cannot always be merely constituted by the reality of what is thus before the mind in the act of judging; for, if this were so, there could never be any error. (3) In some cases, at least, the truth of a judgement may consist wholly or partially in the being of what is before the mind, and *pro tanto* the judgement is incapable of being false. (4) Where a judgement is capable of being false, its truth or falsehood is essentially conditioned by the presence or absence of a certain relation between what is before the mind in judging and what is not.

It is when we have to assign the nature of this relation between what is before the mind and what is not that our divergence begins. My position is that what is before the

mind in possibly erroneous judgement is a possible alternative, and that what is required to make the judgement true is the identity of this with the actualised alternative. This is so because judging involves believing, and because the mental attitude in believing, so far as it differs from disbelieving or merely supposing, is in relevant respects similar, whether what is before the mind is only a possible alternative or actual existence. Hence, if the alternative believed in is other than the actualised alternative, the belief "disagrees with reality"—in other words, it is false.

Mr. Russell's explanation proceeds on a quite different track. It is based on a distinction between dual and multiple relations. In a dual relation one term *A* is related to one other term *B*. In a multiple relation one term *A* is related not to a single term but to a plurality as such. If the other terms are *B*, *C*, *D*, we must not suppose that these are united with each other in a single complex, and that it is this single complex to which it is related. For this would yield only a dual relation. Nor is it enough that *A* should be separately related to *B* and also separately related to C, and again to *D*; for this would be not a multiple relation, but three distinct dual relations. What is required is that *A* should be related at once to all three in their multiplicity. Mr. Russell gives as an example, *A* loves *B* in June. Here *A* is related as a lover to all three terms *B* and "June" and "in". But he is not so related to each of them severally. For he is not said to love June or the temporal relation expressed by the preposition, "in". Nor is he related as a lover to a single whole containing *B* and "in" and "June" as constituents. For there is no such whole in any relevant sense. The existence of *B* in June may indeed be a single complex. But it is not the existence of *B* in June which *A* is said to love when he is said to love *B* in June. *B*, and "in", and "June" do indeed enter into a single complex, but only on condition that this complex shall also include *A* and the relation of loving.

Now I see no reason for calling in question the validity of this distinction between dual and multiple relations. But I have the greatest difficulty in following Mr. Russell's

attempt to apply it so as to explain the distinction between true and false judgements. His position may be stated as follows:—Judging is always a relation of the judging mind to what it asserts or believes. But in mere judgement, apart from actual perception, what is believed is nothing single. It is always plurality as such, and the mind's relation to this plurality is a multiple and not a dual relation. Thus if what is believed is "that *A* loves *B*", "that *A* loves *B*" is not by itself a unity constituting a single object of belief. *A* and "loving" and *B* are three distinct items not connected in a complex whole. There is only one complex whole, that which includes besides *A* and "loving" and *B* the mind and the multiple relation of believing. Now follows the explanation of the difference between a true and a false belief. What is believed must contain at least one item which is itself a relation. In the judgement as such this relation does not really relate the other items so as to form a single couple. But it may be that in reality apart from the process of judging there is an actual complex in which the relation does relate the other items. When this is so the belief is true; otherwise it is false. If what is affirmed is that *A* loves *B*, the relation of loving does not really relate *A* and *B* within the judgement. But if *A* actually does love *B*, there is a complex apart from the mind in which the relation of loving does relate *A* and *B*. This makes the judgement true.

Passing to criticism, we have to deal first with the theory of the nature of judgement and then with the application to the problem of error. As regards the first question, it may be argued, from Mr. Russell's own account of the matter, that the manifold items to which the mind is related in judging do have a unity of their own, and are apprehended as having a unity of their own, distinct from that of the whole complex formed by the judging mind and its object. What seems to me decisive on this point is the requirement that not only should one of the items be itself a relation, but that it should have a "sense" or direction with reference to the other terms. The belief that *A* loves *B* is different from the belief that *B* loves *A*; and the difference, as Mr. Russell

himself expressly recognises, can only be accounted for by saying that in the first case the relation of loving is apprehended as proceeding from *A* to *B* and in the second as proceeding from *B* to *A*. This seems fatal to the view that nothing single is before the mind in judgement except the complex formed by the judging mind itself and the manifold of objects to which it is related. In his published work Mr. Russell does not notice this difficulty. But in a recent correspondence which I have had with him, he writes as follows:—"As regards the sense of the relation *R* in judging *A r B*, you make a point which had already occurred to me. But it is met by a slight re-wording of the account of sense in judgement, and this re-wording is in any case necessary to my theory. There must never, so I now perceive, be any relation having sense in a complex except the relating relation of that complex; hence, in the act of judging *A r B*, the sense must be confined to judging, and must not appear in the *r*. But judging being a multiple relation, its sense is not merely twofold like that of a dual relation, and the judging alone may arrange the terms in the order Mind, *A*, *r*, *B*, as opposed to Mind, *B*, *r*, *A*. This has the same effect as if *r* had a sense in the judgement, and gives all that one wants without being obnoxious to your objections." Now this explanation appears to me to be infected by an ambiguity. Clearly what Mr. Russell means to mean is that the manifold which is the object of judgement has no unity of its own at all, and that the only unity is the complex which includes, together with this manifold, the judging mind. But he seems to me to slip unconsciously into an essentially different position; the position that though the manifold of objects has a unity of its own, yet this unity is in some way derivative from their relation to the judging mind. In the first half of the quoted passage he expressly asserts the first view; in the other half he seems to lapse into the second view. In order to be thorough, let us consider the two alternatives separately. On the first, we do not really apprehend the relation of loving as proceeding from *A* to *B* rather than from *B* to *A*. What we apprehend is, I presume, the relation of judging as passing from *A* to

"loving" and from "loving" to *B*, rather than from *B* to "loving" and from "loving" to *A*. But this plainly is not what we mean when we assert that *A* loves *B*. If it were, we could not fix attention on *A* as loving *B* without *eo ipso* and *pro tanto* fixing attention on our own minds and on the act of judging or believing. Thus judgement could only assume the form "I believe that *A* loves *B*", never the form "*A* loves *B*". Further, if we are to avoid a vicious regress, even in this form the judgement would never be mere judgement, but would also include a perception of the mind as believing. The second alternative is suggested by Mr. Russell's statement that "the judging alone may arrange the terms in the order Mind, *A*, *r*, *B*", and that this has the same effect as if *r* had a sense in the judgement. Such language is naturally interpreted as meaning that the "judging alone", in constituting the total complex, Mind *A r B*, constitutes within it a subordinate unity *A r B*, in which *r* has a sense with reference to *A* and *B*. Further, though Mr. Russell does not really intend to put forward this position as his own, yet a confusion between the two views tends to invest his own position with a plausibility which it would not otherwise possess. The doctrine itself will not bear examination for a moment from Russell's point of view. If *A r B* is really thought of as a unity, and *r* is really apprehended as having a sense, then according to the postulate with which the whole discussion starts, *r* must, in fact, have this sense and *A r B* must, in fact, be a unity. Thus the judgement cannot be false; for it produces the condition of its own truth. This is its "effect".

Mr. Russell's application of his own theory of judgement, as strictly interpreted, to explain the distinction between truth and error also seems to point to a result which is incompatible with his fundamental principles. We must not forget that according to him the *A* and *r* and *B* which are present to the mind in judging are the real *A* and *r* and *B* as they exist and not "ideas" or representations or even mere possibilities. If I think of *A* as loving *B*, *A* and "loving" and *B* must actually exist, and it is their actual existence which I apprehend. But as apprehended they are a

mere manifold without unity; they only form part of the total complex including also the mind and the act of judging. How then can they form a unity apart from the mind, as they must do if the judgement is to be true? How can they do so except through some unifying condition?

Now, this unifying condition cannot be their own reality, for, as apprehended, they are already real. What, then, is it? The only obvious answer is that it must be another mind. But even this would not make them into a unity; it would only supply what is required to complete a complex within which they would fall as partial constituents. It looks as if Mr. Russell, the uncompromising realist, was here unconsciously moving in the direction of a very thoroughgoing idealism. This is, of course, meant only as an *argumentum ad hominem*. I do not myself regard the idealistic tendency of a theory as a *reductio ad absurdum*. But, so far as Mr. Russell is concerned, it certainly seems to me that, from his present position, the hard and unsympathetic treatment which he has given to the idealistic doctrines of Leibniz ought no longer to be possible.

XVI

SOME FUNDAMENTAL POINTS IN THE THEORY OF KNOWLEDGE

§ 1. *Introductory.*—The terms "Akt", "Inhalt", and "Gegenstand" are the keywords of a certain theory of knowledge which constitutes, in my opinion, the most important recent development of philosophical thought in Germany. Among its leading representatives I may refer to Meinong, Husserl and Lipps, Külpe and Messer. In spite of manifold divergences in detail, these writers agree in adopting a certain fundamental scheme as expressing the fundamental nature of mental life and mental development. They agree in sharply distinguishing between what the mind means or intends in perceiving, thinking, or having ideas, and the actual experiences or "Erlebnisse" which belong to its own particular existence as a psychical individual. What the mind means or intends is called by them an object or "Gegenstand". The meaning or intending of something as distinguished from what is meant or intended is called by them an "Akt". An act is a mode of being conscious, and is therefore an actual experience or "Erlebniss" forming part of the existence of the individual mind. But it is an experience which has the distinctive character of intending or being directed towards an object. Hence it is often described as "intentional" experience. Inasmuch as there are various modes of being conscious in relation to objects, it is necessary to distinguish different qualities of intentional experience. In this way mere supposing is distinguished from believing, and both from desiring or willing. But whether we merely suppose or believe or desire or will, the acts of supposing, believing, desiring, or willing are essenti-

ally relative to something other than themselves which is supposed, believed, desired, or willed, and this something is, in each case, the object of the act. The act is always an actual experience of the individual. The object, on the contrary, need not be actually experienced, and perhaps never can be completely identified with anything that is actually experienced at the moment in which the mind is cognisant of it. For instance, I may think of an event as happening before I was born; I may again affirm that this event actually happened; I may be agreeably or disagreeably interested in it; but it is plain that the event which I thus refer to is not part of my own immediate experience as my present belief and interest is, or a headache is, while I am actually feeling it. Similarly, when my doctor believes that I have a headache, I may be experiencing the headache myself, but he is not. In general, what is actually experienced, actually exists in being experienced; but the object of a mental act need not actually exist: "it may be self-contradictory; it may be something which happens not to be a fact, such as a golden mountain; it may be essentially incapable of existence, as, for instance, equality; it may be physical and not psychical, or it may be something which did exist or will exist, but does not exist at present".[1]

If it is urged that the object must at least exist, inasmuch as it is something mentally referred to, the answer is that this implies only the actual existence of the mental act, not that of its object. The object *qua* object may have being in some sense. But, in any case, its being does not consist in being an actual experience of the mind for which it is an object.

Acts, on the contrary, are always actually experienced, and, consequently, always exist as psychical facts. But they are by no means the only psychical facts. Sensuous impressions, for instance, and sensory images are sharply distinguished from such ways of being conscious as supposing, believing, desiring, hoping, fearing, and willing. On the other hand, it will not do merely to classify them as objects of a special kind distinctively characterised by their being

[1] B. Russell, Meinong's "Theory of Complexes and Assumptions" (*Mind*, N.S. Vol. xiii. p. 207).

actually experienced as well as mentally intended. For we are constantly experiencing sensations which escape our notice, and so remain undistinguished in the background of subconsciousness; these subconscious sensations are not the object of any mental act, not even of an implicit judgement asserting their existence. A still more important point is that sensuous experiences fulfil a peculiar function in our mental life which requires to be explicitly recognised in our terminology. They constitute a link between mental acts and objects which are not themselves present contents of immediate experience. Thus sense impressions and images are means by which we perceive or imagine material things and their qualities, states, and processes. We cannot imagine a horse without having an image of it; but the image in our heads is evidently not what we intend to refer to. It cannot be simply identified with the object of the mental act which we call thinking of a horse. Similarly, when we dispense with anything in the nature of a mental picture of a horse, and use only the word "horse", the word is still not the animal which we mean to refer to, but only a sensuous experience through which we refer to it. A special term is required to designate contents of immediate experience which thus fulfil, or are capable of fulfilling, the function of presenting or introducing objects that are not themselves contents of immediate experience. The term selected for this purpose by the group of writers I am dealing with is "Inhalt".

The general scheme which I have attempted to reproduce in broad outline has for me a special interest, because it is akin to views which I had independently developed in my book on *Analytic Psychology*, which was published in 1896.[1] I there connect my own position with that of Brentano, accepting his distinction between objects of consciousness and the modes in which consciousness refers to its object, but criticising his failure to distinguish between "Objekt" and "Inhalt".[2] The word which in my nomen-

[1] I am not claiming priority, but only independence. Priority of publication belongs, I believe, to Zwardowsky.

[2] *Analytic Psychology*, Vol. i. pp. 40-46.

clature corresponds to "Inhalt" is presentation, and I describe the presentative function of presentation as follows. "In having cognisance of an object there are two factors involved: (1) A thought-reference to something which, as the thinker means or intends it, is not a present modification of his individual experience. (2) A more or less specific modification of his individual experience, which determines the direction of thought to this or that special object; this special experience we may call a *presentation*. We may say, if we choose, that the object itself is presented, but not that it is a presentation, and when we say that it is presented, it is better to say that it is presented *to* consciousness than that it is presented *in* consciousness. In the perception of a tree the reference to an object is specialised by a plexus of visual and other presentations. The object thought of is thus rendered determinate. It is determined as a material thing and not a mental occurrence, a tree and not a stone, an oak and not an elm."[1]

Thus the term presentation has for me a twofold implication. In the first place, it is something existentially present in experience, an actual apparition in consciousness: in Berkeleyan phrase it "exists in the mind", and is not merely meant or intended by the mind. In the second place, it is, or may be, presentative of objects which are not thus immediately experienced.[2] So far as this is the case, it specifies the direction of thought to objects, so that the nature of the presented object varies in correspondence with the varying nature of the presentation. Presentations may, however, exist without directly fulfilling the presentative function. They are then what I have called anoetic experiences. Most of the sense impressions which exist in the background of subconsciousness are anoetic. I had not originally any single word to designate what have since been called "acts". I was content to describe them as ways of being conscious of objects, or as attitudes of consciousness towards its ob-

[1] *Analytic Psychology*, Vol. i. p. 47. In quoting I have somewhat altered the wording of the passage.

[2] By "*immediate* experience" I mean here and always what is actually experienced or felt at any given moment, as distinguished from future, past, or possible experiences.

ject. I would now reserve for them exclusively the title of *subjective* states or processes: for presentations are not predicates of the subject in its individual unity and identity, as believing or being pleased are. The term "act" is certainly convenient, and in view of its having already become current, I am prepared to accept it. But in doing so I make two reservations. In the first place, I would make a distinction between acts such as supposing, believing, or desiring, and the relation to an object which is common to all. All acts as such involve this relation, but it is not itself an act. It is not itself a mental state or process, but a relational attribute of certain mental states or processes. In the second place, the word act must not be taken to signify activity; it is sometimes maintained that activity is not to be found in our mental life at all, and though I heartily disagree with this position, the question is one which I do not propose to discuss on this occasion. But in any case I submit that if the mind is, properly speaking, active, it is so only in virtue of one kind of "act", that in which it is interested in an object as something to be sought or shunned. Mental activity therefore, if there be such a thing, must be identified with conation, the striving aspect of our conscious life.

I have now indicated the general nature of the theory of knowledge in which I, more or less, agree with such writers as Lipps, Meinong, and Husserl. But the copious literature in which this general doctrine has been recently expounded contains many special developments which I fail to follow, and in which the writers themselves disagree with each other. I have accordingly selected two of these topics for discussion here. I have fixed on the following problems as being of most fundamental significance from the point of view of general Philosophy. (*a*) What is the nature of the unity and identity of the self or subject which experiences acts and presentations, and is aware of objects? (*b*) What are the conditions of the relation between presentation and presented objects?

§ 2. *The Subject of Mental Acts.*—It is a fact, recognised explicitly or implicitly by everyone, that the manifold and constantly changing experiences which enter into

the life history of an individual mind are in some sense owned by a self or ego which remains one and the same throughout their vicissitudes. But when we begin to inquire into the precise nature of the unity and identity ascribed to the self, and the precise sense in which its experiences belong to it, we are confronted with a fundamental divergence of views. On the one hand, it is maintained that just as the unity of a triangle or of a melody or of an organism consists merely in the special mode in which its parts are connected and correlated so as to form a specific kind of complex, so the unity of what we call an individual mind consists merely in the peculiar way in which what we call its experiences are united with each other. On this view, when we say that a desire is someone's desire, we merely mean that it enters as one constituent among others into a connected totality of experiences having a certain sort of unity and continuity which can belong to experiences only, and not to material things. In opposition to this doctrine, it is strenuously maintained by others that the identical subject is not merely the unified complex of experiences, but a distinct principle from which they derive their unity, a something which persists through them and links them together. According to these writers it is an inversion of the truth to say that the manifold experiences through their union with each other form a single self. On the contrary, it is only through their relation to the single self as a common centre that they are united with each other.

Of these two conflicting theories, I feel bound to accept the first and reject the second. The unity of the self seems to me indistinguishable from the unity of the total complex of its experiences. On the other hand, the adherents of the alternative theory seem to me essentially justified in denying that the sort of unity required to constitute a self can belong merely to immediate experience, abstractly considered, and in holding that it can be explained only by taking into account the common relation of the manifold of immediate experiences to some thing other than themselves. They are right in demanding a condition of unity which does not itself form part of the psychical complex. Where

they go astray is in identifying this precondition of the unity of experience with the unity which it conditions—the unity of the conscious subject. The rôle which they ascribe to the subject of consciousness ought rather to be ascribed to its object. The general principle is that the changing complex of individual experience has the unity and identity uniquely distinctive of what we call a single self or ego only in so far as objects are apprehended as one and the same in different acts or in different stages and phases of the same act. In other words, the unity of the self is essentially a unity of *intentional* experience and essentially conditioned by unity of the object as meant or intended.

It will be seen that I have here in view what, in Kantian language, is known as unity of apperception. I shall have to point out presently that my own position differs in vital respects from Kant's. None the less, I can utilise for my own purpose most of his arguments and illustrations. In particular, I would lay emphasis on the central importance, in this connexion, of the act of judging. What is implicitly or explicitly apprehended as the same proposition, or what Meinong would call the same *objective*, is repeatedly asserted or denied in separate mental acts or in the continuance of the same mental act. To this extent, the distinct mental acts or stages of the same mental act have the unity distinctively characteristic of the self. The same unity is of course involved in apprehending the distinguishable constituents of any proposition as members of the whole. What has been said of judgement holds also for mere supposals, for what Meinong calls "Annahmen". For both in judgement and in merely supposing, it is the unity and identity of the propositions supposed or asserted which condition the unity and identity of the subject of the acts. It is needless to add that we have here to include not mere isolated propositions, but also propositions combined in a context. Such combinations may be, from our present point of view, regarded as forming one complex proposition. And this holds good, however loose and distant the connexion may be. We assert a single proposition when we assert that "virtue is its own reward and whales are mammals". The

conjunction "and" expresses at least the vague thought of the indirect interrelation of these facts as belonging to one world.

We reach the same result when we consider other mental acts. Take, for instance, the identity of the self which asks a question with the self which finds or receives an answer. The self is identical, inasmuch as the question asked is identified with the question answered. Similarly with the pursuit of ends, however simple or complex these may be. The self is the same self, inasmuch as throughout the process of pursuit it is aware of the desired object as the same, and inasmuch as it is aware of the object attained as identical with the object pursued. The best example, however, is supplied by continuity of attention. Attention is continuous when it is throughout directed to the same total object from varying points of view, so as to distinguish successively its different partial features, aspects, and relations. For instance, in observing a flower with a view to its classification as a botanical specimen, the stamens, root, and leaf arrangement may be successively distinguished. The total object is the flower as a specimen to be classified, together with the whole body of botanical science so far as this may be relevant to the classification. The partial features of this total object are successively discriminated, and in their turn cease to be discriminated. But there is continuity of attention, inasmuch as the partial features successively discriminated are throughout implicitly apprehended as being partial features of the same complex unity. Such continuity is by no means confined to relatively advanced stages of mental development. On the contrary, it seems to be coincident with the most rudimentary beginnings of intelligent life. The observed facts point to its presence even in the instinctive behaviour of animals. The cat hunting a mouse, or the kitten playing with a ball, seem throughout to be dealing with a single complex situation, which includes not only the mouse or the ball, but all circumstances or occurrences which may turn out to be relevant to their governing interest. To this extent, the successive and simultaneous experiences of the cat and the kitten have the unity distinctively characteristic of an identical self.

I may now proceed to bring out the nature and significance of the theory I am advocating by pointing out a very important consequence to which it inevitably leads. If the unity of the subject is essentially conditioned by the unity of its objects, it follows that wherever manifold experiences are connected as experiences of a single self, they must be related either as acts or as presentations to the same total object. All special objects must be distinguished within this whole as partial constituents. No special object can be apprehended as absolutely self-existent and self-contained. Every special object must be at least capable of being apprehended as related to others, and finally to the unity of the whole. So far as this condition is not realised, the identity of the self is not realised, but remains, at the most, merely potential. The common object is what, at the level of analytic or reflective consciousness, we explicitly refer to as the *Universe*. But the conception of the universe is only the explicit formulation of what is already implied in the apprehension of particular objects as incomplete, and therefore as requiring completion in a whole which transcends and includes them.

How is this view related to the Kantian doctrine of apperception? Both agree in insisting on the strict correlation of the unity of the object and the unity of the subject. But further comparison reveals vital differences. For Kant there are two selves, the empirical self and the pure ego. The empirical self consists in the total complex of simultaneous and successive experiences which enter into the life history of an individual from birth to death. This complex is not the subject which is conscious of objects, and consequently does not possess that form of unity which is the correlative of unity in the object. On the contrary, its unity is, in principle, analogous to that of any other object which is not itself a conscious subject. But on the view which I am advocating, the empirical ego and the pure ego are one and the same. There is only one self, the complex of simultaneous and successive experiences, unified in a way which essentially involves the relation of acts and presentations to a common object. This divergence from Kant is closely

connected with another. The Kantian exposition tends to represent the unity of the pure subject as a precondition which produces unity in its objects by a synthetic process exercised upon what is originally given as a relationless manifold. This is, of course, quite irreconcilable with my position. If the unity of the subject presupposes the unity of its object, the unity of the subject cannot be a prior condition from which the unity of the object is derived.

I find a similar difficulty in the language used by Meinong and his followers in treating of what they call "objects of higher order" This phrase covers (1) complex unities of interrelated terms, (2) the relations or forms of unity as distinguished from the terms related or unified. Now, I might express my view of the unity of the self by saying that it depends on apprehension of objects of higher order. But in his otherwise admirable treatment of this subject, Meinong uses language suggestive of a doctrine which appears to me both incompatible with my own and with the facts.[1] He lays stress on the necessity of the constituents of a complex being independently apprehended as the logical precondition of the apprehension of their relations, or the complex unity within which they fall. To use his own metaphor, the objects of higher order are built up on their "inferiora" as their indispensable foundations. Further, it is in each case through a synthetic operation of the mind that the awareness of complex unity is superinduced on the awareness of the relatively disconnected "inferiora." It would seem to follow from this doctrine that ultimately the mind must start from a multiplicity of unrelated items, and erect on these a superstructure of relations and complexes. Now it does of course very frequently happen that we are initially aware of given items without being aware of them as constituents of a certain kind of complex, and that their unity as constituents of this complex may then be discovered through such mental operations as comparing or counting. But in such cases there is no evidence, so far as I can see, that the original items are ever originally given as an unrelated manifold.

[1] I do not say that he actually holds this doctrine.

On the contrary, the basis from which the mind proceeds in apprehending the new relation seems always to be itself a complex of interrelated parts. Or, to speak more accurately, it is always within a pre-existing form of unity that relatively new forms of unity emerge for consciousness through an appropriate direction of attention. This will, I think, become clear when we consider that there are two ways in which we may be aware of relation. We may be aware of relations either implicitly or explicitly. In seeing a book lying on a table, the book's being on the table is certainly part of the object of which I have cognisance. But I apprehend it only implicitly if I fail to distinguish the general relation of above and below from the terms which in this instance it relates: if I am only aware of the complex without mentally contrasting its constituents and their relational form. Now the explicit apprehension of relations and forms of unity may perhaps always involve a mental operation starting from a given basis, but the given basis itself seems in all cases to include implicit relations;[1] it is always some kind of complex. By comparing red and blue, I become explicitly cognisant of a relation of difference as subsisting between them. And the possibility of this no doubt presupposes that I began by thinking both of the red and blue together. But it is a condition of my thinking of them together that I shall think of them in some kind of relation to each other, and therefore as members of some kind of complex. I cannot attend to both in such a way as to begin comparing them without at least apprehending them as in some way spatially or temporally connected. Further, the function of comparison in general is to substitute for implicit or relatively indefinite awareness of likeness an explicit or relatively precise awareness. Similarly, when we count we start not merely with the apprehension of units, but with the apprehension of a relatively vague numerical complex, which becomes more precisely defined in the process of counting. In general, the basis or "inferius" of an object of higher order is itself an object of higher order.

[1] Locke similarly distinguishes "secret relations" from relations of ideas apprehended through "comparison" (cf. *Essay*, bk. ii. ch. 21, § 3).

We may go further than this. In some cases of fundamental importance, a complex is apprehended without all its members being independently presented, and sometimes without any of them being independently presented. We may think, for instance, of equality between x and y, where x and y are determined only as being any terms such as may enter into this relation. Here, if we are to make such a distinction at all, it is the constituents which depend on the complex rather than inversely. In other instances the unity of a complex is apprehended though only some of its constituents are independently given. Thus, in thinking of a class, it is plain that we do not and, for the most part, cannot independently bring before our mind all the members. We do indeed, when we think of a class, in a sense think of all its members. But it is the thought of the unity of the class which preconditions the thought of its members as such, and not inversely. In like manner, all the attributes belonging to the same thing are mentally referred to as a complex unity, including both what is known and what remains to be known about the thing; plainly, the unknown attributes, at least, are thought of only in and through the act of thinking of the complex as such, and not independently given as a precondition of this. Other examples of far-reaching importance are supplied by the unity of the order of succession in time and of coexistence in space, and also by the unity of the universe as the necessary correlative of the unity of the self. And the unity of the self as the complex of present, past, future, and possible experiences is another relevant instance.

It may be urged that I have taken the phrase, "objects of higher order", in a wider sense than that contemplated by Professor Meinong. In all probability this is so. But it does not follow that what I have said is irrelevant. For, in the first place, the connexion between relational consciousness in general, and the special form of it covered by the term "objects of higher order," requires to be explicitly considered. In the second place, it is difficult to see how the view that the apprehension of a complex presupposes the independent apprehension of all its terms can be justified

unless by making it part of the definition of a complex, and so rendering the statement a tautology.

It will be seen that in treating of the unity of the self I have omitted all reference to self-consciousness. I have done so intentionally, on the ground that there can be no consciousness of self unless there is a self to be conscious of. But this, in the first instance, can only be constituted by acts which have for their objects something other than their own being. This follows from the general principle that a relation cannot itself be one of the terms which it relates. On the other hand, if we presuppose the complex unity of the self, as independently conditioned by reference to objects, this difficulty vanishes. Given a self to know, there is no reason why it should not be known. It would seem that there is no stage or phase of mental life in which self-consciousness is entirely absent, however vague and rudimentary it may be. However preoccupied the mind may be with other objects, these objects are at least apprehended as qualified by attributes essentially relative to subjective states and processes. An object of desire, as such, differs from an object of aversion, and both from objects which are, in this respect, indifferent. Similarly, an agreeable situation differs from a disagreeable situation, a successful line of behaviour from one that is unsuccessful, and an occurrence which disappoints expectation from one that fulfils it. These and the like variable attributes of objects belong to them only as related to the self and its varying acts. Hence it would seem that the awareness of these must involve at least an indefinite form of self-consciousness capable of becoming more determinate under special conditions.

§ 3. *Presentations and their Presentative Function: Analysis of a Typical Case.*—Turning now to our second problem, we may begin by examining a typical case of fundamental importance—the presentative function of sensory images in relation to impressions. We may then proceed to use this as a clue to the general theory of presentative function. When it is said that an image is a "revival" of an impression, or a revived impression, part of what is meant is

that the image more or less resembles the impression. My present mental picture of the visible appearance of my friend, as I last saw him, is more or less similar to the complex of visual sensations which I experienced in actually seeing him. But this is not all that we mean by the word *revival*. We also intend to imply that the occurrence of the image is in a special way preconditioned by the previous occurrence of the impression. The present image is conceived as being a modified recurrence or reinstatement of the original sensation, and, therefore, as being existentially connected with it and dependent on it. Thus the image is (1) more or less like the original impression, (2) derived from it. These are the two points on which Hume insists as constituting the relation of impressions to what he calls "ideas" or "thoughts". But there is a third point which Hume ignores, although it is directly involved in his use of the terms "idea" and "thought". The fainter copy derived from a past impression is constantly treated by him as being a thought or idea *of* the impression; and, without this assumption, he would not be able to stir a step in the exposition of his philosophy. Yet he never seems to see that thinking of a previous impression is something radically different from having a subsequent experience more or less similar to it and dependent on it. There is here a gap which is certainly not bridged by his insistence on the faintness or feebleness of the derivative copy as compared with its original. If the facts were exhaustively described by describing the present experience as a derivative copy fainter than its original, we should be for ever precluded from knowing or thinking that the copy is a copy or that it implies the previous occurrence of the impression. The impression is no longer experienced when the image is experienced; it does not wait to be copied like the sitter who is having his portrait taken. It is only in the act of remembering itself that we can, in the first instance, come to know, believe, or suppose that the present experience is like or unlike the past: it is only in the act of remembering itself that we can, in the first instance, come to know, believe, or suppose that a prior impression has occurred or that its occurrence is a precondition of the present image.

But as the impression, unlike the image, is not at the moment actually experienced, its previous occurrence, its nature, and its relations to the present image can be mentally referred to only as the object of a thought which transcends immediate experience. Similarly, the cognisance of the image itself as being like or unlike the impression, as subsequent to it and as presupposing it, is also possible only as involving thought which transcends immediate experience. On the other hand, the thought which thus transcends immediate experience does so only by means of it; what is thought is rooted and grounded in what is felt. It is the existential presence and the nature of the image which determines for thought the occurrence of a certain past impression as its special object. The image is the specifying content of the thought, determining it as the *idea* of a specific impression. Apart from the image or something discharging an equivalent function, this thought would be empty—indeterminate or directionless; apart from thought the image would be blind—without reference to anything beyond itself, and, therefore, without reference even to itself.

It is not true that *any* image is capable of determining the direction of thought to *any* impression. Each image does so only in the case of an impression specially connected with it. What is the special connexion which conditions this presentative function of the image? It must be sought in one or both of the two relations already assigned: (1) The resemblance of the image to the impression; (2) the existential dependence which is indicated by saying that the impression is retained and reproduced in the image. If (1) were the sole condition, remembrance would extend only so far as resemblance extends. The thought of the impression would only include such characters as are repeated in the image. But this is very far from being the case. The impression, for instance, is remembered as being vivid, whereas the image is faint; the impression is remembered as being distinct, whereas the image is blurred; the impression is remembered as being steady, whereas the image wavers and fluctuates; the impression may be remembered

as coloured, whereas the image is black and white. Given a suitable direction of attention, such contrasts are recognisable in the very act of remembering. Thus, though the degree of fidelity of the image, as copy, to the impression, as original, is, no doubt, a condition of the detailed accuracy of memory, resemblance is not the sole condition of the presentative function of images. (2) is a fundamental condition as well as (1). Some community of nature between impression and image seems to be required; but the presentative function of the image also depends on the peculiar way in which the image is preconditioned by the antecedent impression. As the merely external fact of dependence cannot be supposed to be operative, we must assume that the image itself as an immediate experience has a character due to its derivative existence, and varying according to the varying impressions from which it is derived. To verify the presence of this character introspectively, we have only to contrast images which directly subserve memory with those that subserve the play of fancy, *e.g.* the complex image of a golden mountain or of a three-headed dog.

In the case of such complex images of fancy the components are ultimately derived from past impressions, but the complex, as such, is not the reproduction of an impressional complex. Hence, though the whole image conditions a thought-reference to impressional experience, it does not yield the awareness of a correspondingly complex sensation as having actually occurred. The thought connected with it is rather that of a possible impression, or, under special conditions, that of a future impression. Even images, which are wholly derivable from previous impressions, may determine the thought of future or of possible sensations rather than the remembrance of those which are past. All depends on the variable context of experience of which they form a part. To discuss in detail the questions which here emerge would be impossible at the present stage of our inquiry. But we may safely assert that the reference to the past is primary, and that all other forms of the presentative function of images, in relation to impressions, presuppose it, and arise as modifications of it.

§ 4. *General Nature and Conditions of the Presentative Function.*—The foregoing analysis of what takes place in remembering the occurrence of a past impression by means of a present image is intended to explain and illustrate by a typical example the general view of the inseparable correlation of thought and experience in all knowledge which is involved in the doctrine of presentations. There are here two points to be noted. (1) As we have cognisance of the image only in remembering the past impression, so mere experience as it is actually being experienced cannot by itself constitute the object of knowledge, apart from a thought which transcends it. (2) As the specifying function of the image presupposes a special relation between it and the impression, and as this relation is itself cognisable in the process of remembering, so all thought is similarly conditioned by appropriate relations between immediate experience and what is thought of, and these relations themselves form part of what is thought of.

Apart from the examination of special cases, have we any general grounds for assuming that these propositions express universal conditions of knowledge? Let us proceed to consider them separately. (1) Can a bare experience, or, to use T. H. Green's language, a mere feeling, be, by itself, an object of knowledge apart from a thought which transcends it? In denying this, I find myself on ground which has been thoroughly traversed and explored. Little can be added to what has been already urged by Green in the introduction to his edition of Hume, and what I have to say here is intended mainly to remind the reader of work which has already been done effectively by others. The most general reason why a bare feeling, as it is being felt, cannot by itself be a complete object of knowledge is that it is not a proposition, and that all knowledge is of propositions and of other things only as forming constituents of propositions. To know is always to know "that . . ."; it is to know, for instance, "that something is or exists or occurs", or "that something is of such and such a nature", or "that it is so and so related to something else". Now a proposition, understood in this sense, is never a particular existence or

occurrence, and it cannot therefore be a feeling, which is always a particular existence or occurrence. Particular existences are capable of beginning to exist and ceasing to exist, but propositions are not thus affected by the flux of time. The battle of Waterloo is a particular occurrence, which began and ended on June 18th, 1815. But the facts of this battle being fought on June 18th, 1815, and therefore ninety-six years before 1911, are not events which come into existence or pass out of existence. Both these facts are expressed when someone speaking in 1911 asserts that the battle took place ninety-six years ago on June 18th, 1815. The dates assigned determine the time of the event, not the time of the fact of its occurrence or of its occurrence at a certain date, or before some other date and after some other date. These facts, as such, are dateless. Similarly a feeling exists only in the moment in which it is felt; but the fact of its being felt at that moment is exempt from such temporal limitation. The fact of its being felt at that moment cannot change into the fact of its not being felt at that moment; and if we consider the fact of its being felt abstractly without reference to any special time, it is still plainer that this does not change or cease to be. It follows that a bare feeling cannot by itself be a complete object of knowledge. But it may be thought that the view we are criticising can, in substance, be rendered defensible by restating in an amended form. Granting that what is apprehended is not the bare feeling only, but the fact of its existence, is it not still possible to assume that the apprehension of this fact may be merely coincident with and limited to the existential presence of the feeling, so that the fact is isolated for knowledge exactly as feeling is isolated for experience? To see that this view is untenable we have only to consider what it implies. *Ex hypothesi*, all reference to anything other than what is contained in the experience of the present moment is excluded, so that there can be no thought of the past or future. Hence the present feeling cannot be apprehended as being present; for this involves the thought of its relation to a before and after. There can, therefore, be no cognisance of its beginning

or ceasing, or of its being an event or occurrence. For the same reason there can be no cognisance of it as like or unlike any experience which has preceded or may follow it. For the same reason, there can be no apprehension of it as enduring or changing, or as having changed or endured. Thus it cannot be recognised as remaining the same in quality or intensity or as varying in quality or intensity in successive phases of its existence; this cannot be, because the self-complete and self-contained object of knowledge is supposed to be only the present phase of its existence in isolation from anything else whatever. Here we seem to have reached a *reductio ad absurdum*. Where there is no identification or recognition of a thing as the same with itself, there can be nothing which deserves to be called knowledge. The same point may be exhibited in a still more searching way, as follows: To know that something exists involves a distinction between what it is and its existence. But this distinction carries us at once beyond the particular existent itself. Its nature as distinguished from its existence is general or universal, inasmuch as it is capable of being exemplified in other particular existents besides. Its existence again, as distinguished from its nature, is general or universal, inasmuch as it is common to whatever exists. As, therefore, a particular existent is only known in knowing the proposition that it exists, it can only be known by a thought which transcends it.

There still remains one objection to this line of argument. It may be said that the grounds assigned for denying that a bare feeling can by itself be known, depend for whatever cogency they may possess on an arbitrary distinction between what is and what is not to be regarded as knowledge. I have, therefore, to point out that the distinction on which I have proceeded is not arbitrary; and this is possible only by showing that it rests on a presupposition common both to those who affirm and those who deny that knowledge may be simply coincident with and limited to immediate experiences as they come and go. Now, it is acknowledged on all hands that cognitions are linked with each other in a system. As to the nature and extent of this systematic unity

there may be much divergence of opinion. All agree, however, that it must in some way include the possibility of inferring from facts given in or through experience other facts not so given. But this would be at least logically indefensible, if not psychologically impossible, were feelings capable of being *felt* by themselves correspondingly capable of being *known* in isolation. Such feelings, as they are experienced from moment to moment, would be the only particular facts primarily given. If we adopt a strictly empirical position and assume that the mind starts *solely* with these primary data, even the thought of anything that is not being actually experienced at a given moment becomes an impossibility. For each experience being for knowledge self-complete and self-contained cannot imply anything beyond itself. Even the reference in memory from image to impression would be inexplicable on this view. On the other hand, if we add to the primary data a faculty of thinking to link them with each other and with facts not directly given in experience, then, as Hume has so brilliantly demonstrated, the work of thought would be wholly baseless and arbitrary. It could only consist in affirming connexion where no connexion is discoverable. No equipment of Kantian categories can help its impotence in face of a logically impossible task.

Generalising from the special case of the image as presentative of an impression, we obtain (2) the universal principle that nothing which transcends immediate experience can be known except in so far as it is apprehended in an appropriate relation to something which is immediately experienced. Further, if we take into account proposition (1), the inverse will also hold good, that no immediate experience can be known except as related to something which transcends immediate experience. Thus, in so far as knowledge is conditioned by a presentation, this presupposes (*a*) that there is a special relation between the presentation and the presented object, and (*b*) that this relation is itself part of what is known. As for (*a*), it seems sufficient to say that there would be no reason why a presentation should determine the direction of thought to one object rather than

another, unless it had some special relation to this object, and that the relation must vary according to the various features or aspects of the object which are revealed to thinking consciousness. As for (*b*), we have already seen that the relation between presentation and presented object is itself apprehended in the special case of the images as presentative of the occurrence of previous impression; if other cases differed in this respect, there would be a fundamental disparity in the nature of the presentative function in different instances of it, which would involve a breach of continuity, not to be accepted without cogent grounds. But there are no such grounds. On the contrary, a detailed examination will show that other cases are in this respect strictly analogous to the case which we have taken as typical. It is also important to notice that we can give no rational explanation of the function of presentations without implying that the relation to presented objects is itself apprehended. The only intelligible account seems to be as follows. Thought, as such, has for its ultimate object the universe in its unity; but not of course the universe in all its detail. The special features emerge successively, leaving always a relatively indefinite background. The unity of the universe is apprehended in apprehending its parts as being partial—as being incomplete and requiring completion through their relations within a whole which transcends them. Now, the process through which the parts of the universe are successively revealed must start from primary objects, which ultimately specify for thought, directly or indirectly, all other objects. These primary objects can be nothing else than those modes of immediate experience which we have called *presentations*. But this implies not only that presentations are essentially fragmentary and so related in various ways to being which transcends their own existence, but also that they must be *apprehended* as incomplete, and, therefore, as related to objects which are not themselves presentations falling within the experience of the individual at the moment.

Inasmuch, then, as knowledge is conditioned by presentation, the total object known is a complex unity, which may be symbolised as PrO, where P is the presentation,

O an object distinct from it, and *r* the relation between *P* and *O*. Plainly, this view is not open to the objections which are commonly regarded as making the doctrine of representative knowledge untenable. The doctrine of representative knowledge is, in principle, indefensible, because according to it we begin by apprehending a *P* which represents *O* without apprehending *O* itself. But we cannot be aware of *P* as representative of *O* without being aware of *O* itself; and, if we are initially aware only of *P*, there seems to be no conceivable way in which we could pass from the knowledge of *P* to the knowledge of *O*. Hence the doctrine of representative knowledge, in the sense in which it is ordinarily understood, is doomed to collapse when it is brought face to face with the question: How does the mind pass from the representation to that which is represented? The position here advocated is such as to make this question entirely irrelevant. I do not say that we are first aware of presentation by itself, and then somehow pass from this to the knowledge of an object distinct from it. What I do say is that whatever other objects we know, we know only in knowing their relation to presentations. But the objects so known, and their relatedness to presentation, are known *immediately*. They are immediate objects of thinking consciousness; and, for me, whatever is really thought, in so far as it is thought really is.[1] Whether the object of thought is an actual experience of mine at the moment, such as a present toothache, or something not actually experienced, such as my having had a toothache yesterday, or the infinity of time—in all these cases, equally, the object of thought is directly present to my thinking consciousness; and what is thus directly present is reality, and not something intervening between me and reality. To put the case in a different way: I no more hold that the knowledge of other objects is mediated by presentations than I hold that the knowledge of presentations is mediated by that of objects which are not presentations. If it is true that I cannot

[1] For an exposition of this view and an attempt to reconcile it with the existence of error, see paper XV on *Real Being and Being for Thought*.

know anything else except as related to a presentation, it is equally true that I cannot know a presentation except as related to something else. In different ways the knowledge of presentations and of presented objects mediate each other, so as to form an inseparable unity. It follows that the question, How do you get from the presentation to the presented object? is not relevant to my position at all. I do not need to "get to" the presented object; for I am there already. If this were not so, I could not even "get to" the presentation itself in the sense of knowing it; for the presentation, in order to be known, must be *thought* as well as experienced; and it cannot be thought except as connected with what is not presentation.

It may be said that, on this view, our knowledge of whatever is not our immediate experience at the moment is merely relative, inasmuch as what we know of it is not its own intrinsic nature, but only the way in which it is related to something else. Does not this leave undetermined the question, what it is in itself apart from its relations to immediate experience? Are we not reduced to the Kantian position, that we can know things only in their appearance as sensible phenomena and not as they are in themselves? Such questions seem to be based on an untenable assumption, the assumption that, knowing the intrinsic nature of A, we can know B as related to A without any insight into the intrinsic nature of B, whatever the special character of the relation may be. This really presupposes the general theory that relations are purely "external" for knowledge, so that anything may be apprehended as related in any way to anything else. Now, even if this be conceded in the case of some relations, it certainly cannot be admitted for all. We cannot apprehend B as prior to A without apprehending B as something which temporally endures or occurs. We cannot apprehend B as greater than A without apprehending B as a quantum of the same sort as A. So far as regards our present question, the assumption, that all relations are in the required sense purely external, breaks down at once when we consider the case which we have taken as typical. Obviously, in apprehending the relation

of past impression to present image, we apprehend, in some degree, the nature of the past impression. Similarly, in so far as one man has cognisance of the sensations and emotions of another in relation to his own, he has more or less insight into the intrinsic nature of the other man's sensations and feelings, though he does not himself experience these. In general we may venture to assume, until a clear exception is shown to exist, that all knowledge of presented objects includes, in some respect and degree, a knowledge of their intrinsic nature, and not *merely* of their relatedness to presentation. The *respect* and *degree* will vary with the presentation and the sort of relation apprehended between it and the presented object. Thus, the distinction between knowledge of things as they are in themselves and knowledge of things as phenomena may still be maintained in a relative sense. It ceases to be absolute and becomes a distinction of more or less. We may illustrate by comparing the knowledge which a man blind from birth may obtain of the visual sensations of other men with that possessed by a man whose own vision is normal. Inasmuch as the blind man himself experiences sensations of various kinds, he knows what it is for another to have sensuous experiences, and, to this extent, he knows what it is to have visual experiences: inasmuch as he himself has tactual sensations which are extensive, he knows what it is to experience extensive sensations, and to that extent he knows what it is to experience visual sensation. But all his further special knowledge of them has reference merely to their distinctive place and function in the mental life of other men; this knowledge may be extensive and systematic; and it often enables the blind to speak of light and colour with a propriety and accuracy which make it difficult to realise that they themselves are unable to see. None the less it can never give cognisance of the distinctive qualities of light and colour sensations as they are in themselves. These are known in their δύναμις rather than their εἶδος; they are apprehended phenomenally and not *per se*.

The knowledge of beings other than existent particulars, *e.g.* generalities and possibilities, and universal forms of

unity, such as space, time, and causality, is ultimately coincident with the knowledge of relevant particulars as actually existing. Hence the presentations which present existent particulars *eo ipso* present these other modes of being. Thus, in apprehending a particular existent, such as a tree or a horse, we must, however vaguely, distinguish its "what" from its "that"; and so regard it as an instance exemplifying a general nature capable of having other instances. In order that these other instances, actual or possible, may be separately brought before the mind in their distinct particularity, other specific presentations are required; these may partly be given in the course of sensuous experience, as, when after seeing a white horse, we see a black one; or, again, they may be formed through productive imagination, under the guidance of general concepts, as, when after seeing a white horse, we imagine a green one, which we have never seen; or, when after seeing a horse and a man, we proceed to imagine a centaur. But it is not necessary for the apprehension of a distinct instance, as such, that it should be thus separately perceived or imagined. It may be thought as having some determinate relation to what is perceived or imagined. Thus, to adopt an illustration from Hume, supposing that a qualitatively graduated series of colours is given, another colour, which is not given, may be determined for thought, as being intermediate in quality between two adjacent members of the series which are given. Whether or not the mind endeavours to imagine this colour, and whether or not it succeeds in so doing, the particular colour is none the less apprehended through its relation to the given particulars. Nor is this all; other unimagined particulars may be determined for thought as related to this one, which is itself unimagined. If the given colours are p and q, and the unimagined colour x is thought of as being exactly intermediate between p and q, then another colour y may be determined for thought as exactly intermediate between p and x, and yet another z as exactly intermediate between y and x, and to this process there is no theoretical limit, apart from the special conditions of special cases. It is in

some such way that we are enabled to think of the infinite series of numbers intervening between 0 and 1.

We may say generally that universals, whether these be merely class concepts or other forms of unity, and also possible particulars, as such, are ultimately apprehended in inseparable unity with actual particulars. Hence, in dealing with the question, how far universals and possibilities are known as they are in themselves, we must take into account two conditions. We have (1) to consider how far the relevant actualities are, in relevant respects, known as they are themselves. So far as the things we see and touch are phenomenally known, the general concept of material things, and the systematic concept of the material world, are also phenomenal. On the other hand, so far as particular feelings, and sensations, and thoughts are known, in their intrinsic nature, the corresponding class concepts are known in their intrinsic nature, and so is the individual mind, inasmuch as it is a unified complex of feelings, sensations, and thoughts. Condition (2) has especial reference to possible particulars and classes of possible particulars. A possible particular may be set before the mind through a process of productive imagination, and, to this extent, it is apprehended as it is in itself in the same manner and degree as the actual particulars with which it is connected. On the other hand, without being itself imagined, or even capable of being imagined, it may be determined for thought as "that which" is related in a certain way to other actual or possible particulars. It may be determined for thought as x in our example is determined through its relation to p and q, or as y is determined through its relation to x and p, or as z is determined through its relation to x and y. So far as this is the case, the possible particular is known "relatively" rather than "in itself".[1]

§ 5. *Function of Sense-Presentations in the Perception of External Objects.*—I have so far avoided any discussion of the part played by presentations in the perception of material

[1] This discussion of our knowledge of universal possibilities is meant only to indicate the general mode in which I would deal with the questions raised. There are manifold complexities and subtleties which I leave untouched.

things and their qualities. Nor do I now intend to deal with the problem as a whole, as this would be impossible within the space at my disposal. I feel bound, however, to say something in reply to the charge that I hold a doctrine of Representative Perception. I have already shown that my general theory of knowledge is not really open to this criticism. But in dealing with the perception of the sensible qualities of bodies, I have to meet a more special objection. It is urged against me that there is here no room for any distinction between presentation and presented object; the sense presentation, it is said, is itself all that is discernible as the quality of the thing.

I may state the case against me in the language of a very acute critic, who has favoured me with a private communication on the subject.[1] "I have before me a brass inkstand. It is round and yellow. What is the relation between, *e.g.*, the yellow which I see (presentation-yellow = *Yp*) and the yellow of the inkstand (yellow object = *Yo*)? According to Representative Perception *Yp* (the colour sensation yellow) is one thing, and *Yo* (the colour yellow) is another quite distinct thing, and *Yp* represents *Yo*. I understand that you would say that *Yp* presents rather than represents *Yo*, but that *Yp* must be distinguished from *Yo*, inasmuch as *Yp* is a momentary psychical fact and *Yo* is a permanent quality of the inkstand. . . . I am content to ask, In any one moment in which I see the inkstand is there only one yellow which may be regarded either as colour sensation or as colour quality, or are there two yellows? For my part I answer, of course, one yellow, the identical yellow colour which I see the inkstand to be of."

The point could hardly be better put. My reply is as follows: I grant that the "yellow I see" is the yellow of the object. But I deny that the "yellow I see" can, according to the normal use of language, be identified with the presentation-yellow (*Yp*). Ordinary language follows common sense; and common sense regards the question "What is seen?" as ultimately dependent on the question "What material thing is actually before the eye to be seen?" If I say that I see a

[1] Mr. Henry Barker, of Edinburgh University.

man, I may be told that I do not see a man but a wax figure. Similarly, if I say that I see a yellow inkstand, common sense may correct me by asserting that I do not see a yellow inkstand, but only one which looks yellow to my jaundiced eye, or under a certain unusual illumination. That it *looks* yellow to me means that I apprehend a sensory content similar to that which I should apprehend, if I really saw a yellow inkstand with a normal eye and under normal illumination. But we do not naturally speak of seeing the sensory content itself. The case of dreams and hallucinations is instructive. I may say that I saw a yellow inkstand in a dream. But "I saw in a dream" is only a way of saying "I dreamed that I saw", and is sharply distinguished from really seeing. Yet, in dreaming that I see a yellow inkstand, the visual sensations may be virtually the same as in really seeing one. The awareness of the sensations is not by itself enough to constitute seeing. I do not really see unless there is present either a yellow inkstand or something mistaken for it, to which the yellow may belong.

What then is the relation of *Yp* to *Yo*? It is suggested that if I say there are two "quite distinct" yellows, I involve myself in obvious absurdity. So far I agree. Such a position would be absurd. But there is also another absurdity which I am equally anxious to avoid, one which my critics do not seem able to escape. If it is absurd to assert two distinct yellows, it is *a fortiori* absurd to assert an indefinitely numerous multiplicity of yellows, all belonging to the same object. But, if presentation-yellow is taken to be, by itself, identical with the yellow of the object, then, since the presentation-yellow may vary indefinitely for different percipients, and for the same percipient under different conditions, there must be a corresponding multiplicity of different yellows really belonging to the object.

My way of avoiding both the double yellow and the indefinite plurality of yellows is as follows: What I perceive by sight at any moment is not *merely Yp*, but *Yp* as *conditioned*. My perception includes not only awareness of the sensory content, but also the thought of its condition. Thus, if the presentation-yellow is symbolised by *Yp*, I should

symbolise the yellow of the object, so far as this is perceived at any given moment, by *Yp-r-c*, where *c* stands for a condition and *r* for a relation. The two distinct yellows are thus avoided. For *Yp-r-c* includes *Yp*, and if *Yp* is omitted there is no yellow to be seen in the inkstand. On the other hand, I also avoid the absurdity of the indefinitely numerous yellows. For the various presentation-yellows, in virtue of their common relation to the constant condition *c*, form, together with *c*, a complex unity which may be symbolised as follows:

$$\left.\begin{matrix} Yp_1 \\ Yp_2 \\ Yp_3 \\ \vdots \\ Yp_n \end{matrix}\right\} r\text{-}c.$$

This complex unity is the yellow of the object, *Yo*; and Yp_1-*r*-*c*, Yp_2-*r*-*c* . . . Yp_n-*r*-*c* are not separate yellows, but the partial phases of the single objective yellow which we call its varying sensible appearances. The single objective yellow *looks* different according to the varying circumstances under which it is perceived. If we could see or feel the vibrations which constitute yellow for the physicist, we should only be perceiving one sensible appearance of *Yo* among others.

It is only from this point of view that it seems possible to account satisfactorily for the identification of visible with tangible extension in the same thing, notwithstanding the dissimilarity which Berkeley pointed out between the extensive characters of visual and tactual sensations, as such. Part of what we mean by the unity of the sensible qualities of the same thing is that, so far as they are in place at all, they are in the selfsame place. In particular, visible and tangible qualities are apprehended as spatially coincident—as, so to speak, interpenetrating each other. The smoothness of the inkstand is exactly where its yellowness is; there is not one extension of the smoothness and another of the yellowness. There is a single indistinguishable extension of both. But if we compare the corresponding

visual and tactual presentations we find no such identity in the extension which belongs to them. As Berkeley has shown in his *Theory of Vision*, the relation between *Ev*, the extension of visual sensation, and *Et*, the extension of tactual sensation, apart from the general similarity which is implied in applying the word *extension* to both, consists merely in their regular empirical conjunction in certain successive and simultaneous combinations. The *Ev* and the *Et* which I experience in seeing and touching the brass inkstand are, in their own nature and existence, as distinct from each other as each of them is from the *Ev* or *Et* which I experience in seeing or touching a book on my shelves. If, then, there is no difference between sense-presentations and the sensible qualities of bodies, how can we account for the identical extension of the visible and tangible qualities of the same thing? On my view, there is no difficulty. The identical extension of the thing is the complex unity $\left.\begin{matrix} Ev \\ Et \end{matrix}\right\}$*r-c*. *Evrc* is that partial phase of this complex unity which we call its visual appearance, and *Etrc* the partial phase of it, which we call its appearance to touch.

Plainly there are many further questions which arise out of this account of the perception of sensible qualities. In the first place, the constant condition pervading and unifying the different appearances of the same quality is only one of the conditions on which the sense-presentation depends. The variations in the sense-presentation must be referred to correspondingly variable conditions. We have thus to face the problem, how does the percipient subject come to discern with increasing definiteness and certainty the constant from the fluctuating factors? In following up this line of investigation it would be necessary to traverse again, from a different point of view, the ground covered by Kant in his proofs of the Analogies of Experience.

Again, there is the very important question: how far does knowledge, by way of sense experience or otherwise, include a knowledge of the conditions of sensation as they are in themselves? Kant's view was that they cannot be known as they are in themselves at all. But as I hold that

the distinction between knowing anything through its relations and knowing its intrinsic nature is merely one of degree, it is clear that I am bound to disagree radically with this Kantian doctrine.

The limits of the present essay debar me from dealing with these and similar problems. But I hope that I have said enough to show the general point of view from which I would treat them.

XVII

THE NATURE OF UNIVERSALS AND PROPOSITIONS

THERE are various types or forms of unity which may all be regarded as partial phases of the unity of the universe. There is the unity of the complex of qualities qualifying the same thing or concrete individual. There is the unity of space and time or space-time. There is the teleological unity, exemplified in a living organism. And there are others which I need not enumerate. It is only with one of these that I am here directly concerned—the unity of a class or kind as including its members or instances. What I am going to mean by the term "universal" is either this unity itself, if it is taken as ultimate, or if it is not taken as ultimate, whatever principle is supposed to account for it. I mean what Mr. Bosanquet names the abstract universal in distinction from other forms of unity which he names concrete universals. The so-called abstract universal is, no doubt, when considered by itself, relatively superficial and shallow. None the less, it is vitally important, inasmuch as it is presupposed in all other forms of unity, so that without it there can be no thought. Hence the view taken of it by a philosopher essentially contributes to determine his whole philosophical position.

I hold myself that the unity of a class or kind is quite ultimate, and that any attempt to analyse it leads to a vicious circle. But this is not the traditional view, and it is not the view taken by leading philosophers of the present day such as Mr. Bradley, Mr. Bosanquet, Mr. Bertrand Russell, Mr. M'Taggart, and Mr. W. E. Johnson in his recent admirable work on Logic. According to these writers,

qualities and relations, as such, are universals. They are so inasmuch as the same relation may severally and separately relate distinct sets of terms, and the same qualities may be common to many distinct particular things. A plurality of particular things, sharing a common character, is a logical class, signified by a general term. The diverse particulars are the denotation, and the common character is the connotation of the general or distributive term applicable to each member of the class. Thus, the unity of a class or kind is regarded as derivative, not ultimate. It is constituted by the identity of some character, simple or complex, characterising the things denoted by the general name. The identity of the character is interpreted strictly and literally. There is no plurality of particular qualities corresponding to the plurality of particular things. The common quality is regarded as indivisibly single. Two billiard balls are both round and smooth. So far as they are both round, the roundness of the one is the roundness of the other, and so far as they are both smooth, the smoothness of the one is the smoothness of the other. Abstract nouns, as standing for the quality in its singleness, without reference to any multiplicity of things qualified by it, are thus regarded as singular terms, like proper names. If we ask how, for example, shape can be identical both in square things and round things, the best answer is that of Mr. Johnson, who distinguishes between indeterminate and determinate characters. Shape is a single indeterminate character capable of being variously determined as square, round, or triangular. Similarly for relations. My nose is above my chin, and Smith's nose is above Smith's chin. His nose is distinct from mine, and the same is true of our chins. But there is the single identical relation of "above and below" which relates both my nose to my chin and his nose to his chin. The question whether relations are or are not characters predicable of things is not here relevant. In order, however, to explain my language in what follows, I may say that I hold them to be predicable characters. I agree entirely with Mr. Johnson's treatment of the question in his chapter on Relations. "My nose is above my chin" means "my nose is to

my chin as above to below, the nose being above and the chin below".

This whole doctrine which I have roughly outlined, of the singleness of characters, whether qualities or relations, seems to me fundamentally wrong. A character characterising a concrete thing or individual is as particular as the thing or individual which it characterises. Of two billiard balls, each has its own particular roundness separate and distinct from that of the other, just as the billiard balls themselves are distinct and separate. As Jones is separate and distinct from Robinson, so the particular happiness of Jones is separate and distinct from that of Robinson. What then do we mean when we say, for instance, that roundness is a character common to all billiard balls? I answer that the phrase "common character" is elliptical. It really signifies a certain general kind or class of characters. To say that particular things share in the common character is to say that each of them has a character which is a particular instance of this kind or class of characters. The particular instances are distributed amongst the particular things and so shared by them. It is true that the term "class" tends in ordinary usage to be applied to classes of things, whereas such words as "kind" or "sort" are naturally applied also to qualities and relations. My point is that these terms all express the same ultimate form of unity, the distributive unity which comprehends what are for that reason called members of a class, instances or examples of a sort or kind. To define a general term exclusively by reference to classes of things, therefore, involves a vicious circle. There is no generality in substances which is not entirely derivative. It is wholly constituted by the generality of the adjectives which qualify them, and the generality of adjectives does not consist ultimately in possessing other common adjectives.

Abstract nouns are, on my view, not singular but general terms. Shape, for example, stands for "all shapes as such," and squareness stands for all square shapes as such. On the other hand, the shape of the table at which I am now writing is a singular term. Abstract nouns supply the appropriate verbal form for naming qualities and relations when

they are to be themselves characterised by other qualities and relations, as when we say that "human happiness is transient". Adjectives and verbs supply the appropriate verbal form for attributing characters to things. The statement found in some text-books of Logic that adjectives are not names of qualities but of the things they qualify is, of course, nonsense.

The position that characters are as particular as the concrete things or individuals which they characterise is common to me and the nominalists. But I differ from them essentially in maintaining that the distributive unity of a class or kind is an ultimate and unanalysable type of unity. The nominalists, on the contrary, say that it can be explained through the relation of resemblance. This view seems to me entirely indefensible. Distributive unity is signified by such words as "all", "every", "any", "some", and the indefinite article. Can the meaning of these words be stated adequately in terms of resemblance? This is plainly impossible. Consider the example "all triangles". It may be said that this means all shapes that resemble each other in a certain respect. But such formulas presuppose that the word "all" has a meaning of its own that cannot be reduced to relations of similarity. It is precisely the concept of distributive unity which remains unexplained. The nominalist entirely fails to show how we can think of a class or kind as a whole without setting out before our mind each one of its members or instances so as to discern relations of similarity between them. Yet he cannot help tacitly assuming that this is not required for our apprehension of the class as a whole. Berkeley, for example, says that we take a given particular triangle as representing all other figures which resemble it in a certain respect. But this is nonsense unless we can think of all the other figures as one total object without severally apprehending each of them or indeed any one of them.

What again is meant by resemblance in a certain respect? In what respect must figures resemble each other to be classed as triangles? Shall we say "by being enclosed by three lines"? The answer is a good one if we suppose that three-sidedness is a single quality indivisibly present in the

plurality of things which it qualifies. But nominalism is based on a denial of this position. Hence in the mouth of the nominalist the answer can only mean that the figures must resemble each other inasmuch as they are all triangles —inasmuch as they are all members of the class "triangular figures". This is plainly a vicious circle, when what requires to be explained is precisely the meaning of the words "class" or "kind".

How then, it may be asked, are relations of resemblance connected with the distributive unity of a class or kind? My own view is briefly as follows. A relation considered as subsisting between terms presupposes some complex unity within which both the terms and relations fall. This complex unity is the *fundamentum relationis*. For example, a relation of "above and below" as subsisting between *a* and *b* presupposes a spatial complex including both *a* and *b* and the spatial relation between them. In like manner, resemblance presupposes a complex unity of the peculiar type which I call the distributive unity of a class. The same holds for dissimilarity so far as this admits of degrees, as between colours, and does not amount to disparity which makes comparison impossible, as between colours and sounds. The unity of the complex as a whole ought not to be confused with relations between terms. Thus the resemblance is always between members of a class of things or particular instances of a kind of quality. The unity of the class or kind as a whole is not a relation at all. It is what, with Mr. Johnson's permission, I should like to call a "tie"—a *fundamentum relationis*.

Agreeing with the nominalist that characters are as particular as the things or substances they characterise, the inference I draw from this thesis is not that there really are no universals, but that the universal is a distributive unity. I have now to defend this thesis and consider some of its implications.

It will be convenient to begin with characters which consist in transient states, acts, or processes, *e.g.* a sneeze, the flight of a bird, the explosion of a mine. These are so obviously particular that they present a special difficulty for

those who hold that qualities and relations are, as such, universals. The difficulty is so pressing that it has driven more than one recent writer to assert that transient states or acts are substances, not characters of substances. Mr. M'Taggart, for example, after defining a substance as that which has qualities or relations but is not itself a quality or relation, writes as follows (*Nature of Existence*, p. 73): "A sneeze would not usually be called a substance, nor would a party at whist, nor all red-haired archdeacons. But each of the three complies with our definition, since each of them has qualities and each is related without being a quality or relation." Mr. M'Taggart's definition is defective. If we are not to ignore a fundamental and relevant distinction we must add to it that a substance must be a particular existence and not a universal. This excludes the red-haired archdeacons. We may pass the whist party, considered as a group of men sitting at a table and playing a game. A sneeze is certainly particular. But it is equally certain that it is not a substance, even according to M'Taggart's definition. It may indeed have characters predicated of it: it may be violent and inconvenient. But it is also a character predicable of something else, the particular man who sneezes. It has its being only in its concrescence with the other qualities and relations of the concrete individual while he is sneezing. The sneeze cannot continue to exist in however altered a form apart from the sneezer, as a hand or eye may when severed from the body.

We may then assume that at least a large and important group of characters are as particular as the substances which they characterise. Is this true of all qualities and relations? It must be so, because there is no distinction of substances as separate particulars which does not involve a corresponding distinction of their characters as separate particulars. I apprehend two billiard balls as separate substances, inasmuch as each is taken to be in a separate place. One is here and the other there on the surface of the billiard table. How can I know or suppose this unless I know or suppose that the roundness, smoothness, and whiteness of the one ball is locally separate from the roundness, smooth-

ness, and whiteness of the other, and that the relation of contact between the one ball and the cloth is locally separate from the contact between the other ball and the cloth?

It has been objected that what is really the same indivisible quality may none the less appear separately in different times and places. There is here, I think, a serious confusion between two senses of the word "appear." We say that something may appear to be what it is not. So used, appearing is synonymous with seeming. But we also say not that something appears (*i.e.* seems) to exist, or to be this or that, but simply that it appears, meaning that it is an actual apparition, that it is actually presented or given in experience. In this sense, nothing can really appear except what really is, and really is as it appears. I may, in double vision, have two images of a single candle flame. There then appear or *seem* to be two candle flames, whereas in fact there is only one. But the visual presentations do not merely seem to exist and be separate. Both they and their separation really appear, are really presented or given, and must therefore really exist. It is only because the images really exist and are really separate that there appear or seem to be two flames. Now, when it is said that, for instance, the brightness of one light appears separately from the brightness of another, what is meant is simple appearance and not seeming. This must be so, because the separate appearance is taken as explaining how the qualities may seem to be separate though they are not, just as the double image explains why the single candle flame seems to be double. But the explanation refutes itself. If the qualities of separate things really appear separately, and if their separateness really appears, then they really are separate, and do not merely seem to be so.

I may restate my general argument in another way. Whatever view may be held of the distinction of a substance from its qualities, it is almost universally admitted that the substance is nothing *apart from* its qualities. Mr. M'Taggart makes this proposition the basis of an argument to show that substances cannot be diverse without being in some respect dissimilar. In this he may be right. But the

same principle seems also to lead to a conclusion which he would reject, that qualities are distinct particulars, just as substances are. If substance is nothing apart from its qualities, to know the substance without knowing its qualities is to know nothing.

It follows that we cannot distinguish substances from each other without discerning a corresponding distinction between their qualities. It follows also that if the distinction of the substances is not preconditioned by any discernible dissimilarity between their qualities, the qualities must be primarily known as separate particulars, not as universals. The universals will be involved only inasmuch as the qualities are particulars of the same general sort or kind. Now in looking, let us say, at a sheet of white paper, I am able to discern the several parts of the paper without discerning qualitative unlikeness between each part and every one of the others. Even if I am aware of qualitative unlikeness between one part and some other part I can clearly recognise that this is not the primary ground of the distinction between them. Whether I suppose the unlikeness to be great or almost imperceptible or quite absent, diversity is still discernible. Indeed if it were not presupposed, there could be no question of likeness or unlikeness. Nor can we say that each part is distinguishable by its distinctive relations to other parts. For in order that one particular may be known as related in the required way to other particulars, it is a logical precondition that it shall itself be known as one particular among others.

In this argument I have assumed that a thing is nothing apart from its characters, and that therefore there can be no knowledge of it which is not knowledge of its characters. But Mr. Bertrand Russell and, I believe, Mr. Moore reverse this reasoning. According to them, knowledge of a thing as in any way characterised is only knowledge about it, and presupposes a logically prior and independent knowledge of the things themselves, which they call acquaintance. Hence they would argue that inasmuch as things can be known independently of any knowledge of their characters, it cannot be true, as I have assumed, that they are

nothing apart from their characters. Mere acquaintance with a thing is supposed to involve no apprehension of anything which could possibly be predicated of it. What is known in this way cannot be expressed in words. I am acquainted with a colour presentation while it is being presented, and with a toothache while I am feeling it. If, however, I am aware of the toothache as being painful or intense, or as felt, or as existing, or as mine, or as beginning, persisting, or ceasing, or as in any way distinct from or connected with anything else, or even as being "something or other", such awareness is knowledge *about* the toothache and not merely acquaintance with it. Acquaintance with the toothache consists in the fact that it is felt, not in knowledge of this or any other fact. Acquaintance with a colour presentation consists in the fact that it is presented, not in knowledge of this fact or of any other.

I do not at all doubt that what is here called acquaintance really exists. Without it there can be no knowledge; for if we were not acquainted with some things we could not know anything. It is what I have called actual appearance as distinguished from seeming. It constitutes the radical meaning of the word "experience" which gives distinctive significance to all its other applications. It is what, following Mr. Bradley, I have been accustomed to call immediate experience. But it cannot, I think, be properly regarded as knowledge. It is true that I can know about a toothache while I am actually experiencing it, as I cannot know about it while I am not experiencing it. And we may perhaps call this way of knowing, knowledge by acquaintance. Still, the knowledge is only knowledge *about*, and is distinct from the acquaintance which conditions it. How, indeed, can we know anything, if it is supposed that we know absolutely nothing about it?

Let us, however, for the sake of argument, concede that acquaintance, as such, is knowledge. There is still no ground for regarding it as a knowledge merely of things, apart from their qualities and relations. It is true, indeed, that we do not know *about* the qualities and relations when we are merely acquainted with them. We do not know

that they exist or what they are. We do not distinguish them from each other or from the things they characterise. If reasons of this sort prove that we do not know the qualities, they prove equally that we do not know the thing qualified. For in mere acquaintance, we do not know that the thing exists or what it is: we do not distinguish it from other things or from its qualities. If we can know the thing in this blind way, then in the same blind way we can know its characters. If we inquire what in mere acquaintance we are acquainted with, mere acquaintance itself, being blind and dumb, can supply no answer. The answer must be sought in analytic judgements which involve knowledge about. But these judgements never reveal a mere thing apart from its characters, but always the thing as in some way characterised. Both for mere acquaintance with things and for knowledge about them the principle holds good that a substance, being nothing apart from its adjectives, cannot be known apart from them.

At this point we are confronted by the ultimate question, What is the distinction between a substance on the one hand, and its qualities and relations on the other? To me only one view appears tenable. A substance is a complex unity of an altogether ultimate and peculiar type, including within it all characters truly predicable of it. To be truly predicable of it is to be contained within it. The distinctive unity of such a complex is *concreteness*. Characters of concrete things are particular, but not concrete. What is concrete is the whole in which they coalesce with each other. This view of substance as a complex unity, when coupled with the doctrine that qualities and relations are universals, leads naturally, if not inevitably, to the denial of an ultimate plurality of substances. This is the line of thought which we find in Mr. Bradley and Mr. Bosanquet. Reality must be concrete and individual; the individual cannot be constituted by any mere union of universals. Yet if we inquire what so-called finite individuals are, we find nothing but qualities and relations, which, as such, are taken to be universals. Hence, the true individual transcends the grasp of finite thought. There can be only one substance, the

absolute and individual whole of being; all finite existences including finite selves are merely adjectives of this. If taken as ultimate they are mere appearances.

On the other hand, those who maintain that there is ar ultimate plurality of substances, and yet hold that char acters are, as such, universals, seem logically bound to deny that a substance is the complex unity of all its qualities and relations. Thus Mr. M'Taggart, who occupies this position, asserts in his *Nature of Existence*, ch. v., that the complex unity is itself only a complex adjective, and therefore presupposes a subject ultimately distinct from itself. I have elsewhere criticised this view on the ground that it makes the whole being of substance consist in its relatedness to something else, to the characters which characterise it. Mr. M'Taggart now replies that when, for instance, "Smith is said to be happy", the fact that he is happy is the primary fact, and the fact that he is related to the quality of happiness is only derivative (p. 70). But this leaves my difficulty untouched. What Mr. M'Taggart calls the primary fact, the happy Smith, is, according to him, a complex containing two existences ultimately quite distinct from each other, the substance, on the one hand, and, on the other, all characters predicable of it. But two distinct existences within a complex can only be connected by a relation; and the relation in this case can be no other than what is directly expressed in such propositions as "Smith is happy".

Mr. M'Taggart also directly attacks the alternative view that the substance is the complex unity comprehending what for that reason are called its characters. Unfortunately his argument starts with a misunderstanding. "It has", he says, "been maintained that we shall, if we take the right view, be able to dispense with the conception of substance and use only the conception of qualities."[1] This is certainly not what I take to be the right view. For me, the concrete complex containing all the characters of a thing is not a character but the thing itself. To say that the inclusive complex must itself be a predicable character, is like saying that a triangle must be the side of a triangle,

[1] *The Nature of Existence*, p. 66.

that the class "horses" must be a horse. What remains of Mr. M'Taggart's argument, after we have allowed for such misunderstanding, amounts only to this, that a proposition such as "Smith is happy" cannot, without absurdity, be formulated in the language of my theory. We cannot, he urges, assert of the complex comprising all characters predicable of Smith that this complex is happy. We cannot. But this rendering of "Smith is happy" is not mine. Mine would rather be: "The concrete unity including the character of being known by the name of Smith also includes the character of being happy". This, I take it, is precisely what is meant by asserting that Smith is happy. The formula given by M'Taggart itself needs to be translated in terms of my theory. So translated it would run: "The complex including all the characters of Smith includes, besides these, another character of Smith, that of being happy". This is nonsense. But in my view there is no reason why it should be sense.

There still remains one question which I have not yet considered, though it is of vital importance to my general argument. If I am right, what is meant by a character common to a class of things is a general kind of character of which a particular instance characterises each member of the class. It follows that the logical division of a wider class into mutually exclusive subclasses according to the same *fundamentum divisionis* is possible only through a corresponding division of a wider class of characters into subclasses of characters. This view is, of course, quite incompatible with the position of those who regard a common character as a single quality or relation indivisibly belonging to each and all of the things it characterises. Have they any alternative explanation? I know of no other than that which is offered in Vol. i. ch. xi. of Mr. Johnson's *Logic*, on "The Determinable".

Mr. Johnson begins by comparing the propositions "Red is a colour" and "Plato is a man". He inquires whether Red is asserted to be a member of a class called "colours", as Plato is asserted to be a member of the class "men". He simply takes for granted without discussion

that redness at any rate, if not colour, is a singular term, standing for a single quality and not for a general kind of qualities. He thus, from my point of view, partially begs the question at issue from the outset. In his way of dealing even with the problem as he himself formulates it, there seems to be a similar *petitio principii*. He decides that "colours" does not stand for a class of which redness is a member. The sole reason which he gives is that whereas Plato, for example, is recognised as a man through the quality of humanity common to him and other men, it is not true that red is recognised as a colour through a quality distinct from itself and common to it and other colours such as blue and yellow. But this is merely to assert, what is in any case evident, that inasmuch as substances are not qualities, classes of substances are not classes of qualities. On any view, the division of substances into classes is in some way dependent on a corresponding distinction between their adjectives. It presupposes that, in some sense, a plurality of things share in a common character. The only question is, what is meant by their sharing in a common character? I take this to mean that each is characterised by a particular instance of a general kind or class of characters. We may if we choose apply the term class exclusively to general kinds of substances. But the real question is whether the words "kind" and "class" stand for the same ultimate type of distributive unity, which is found in substances only because it is found in their characters, and cannot therefore be ultimately different for substances and for characters.

This is not Mr. Johnson's view. Does he offer any tenable alternative? Instead of the distinction between general and particular, and between more and less general, he would in dealing with characters substitute the distinction of the determinable and the completely or relatively determinate. "To predicate *colour* or *shape* of an object", he says, "obviously characterises it less determinately than to predicate of it *red* or *circular*; hence the former adjectives may be said negatively to be indeterminate as compared with the latter."[1]

[1] *Logic*, Vol. i. p. 174.

There is certainly a sense in which this distinction is valid and useful. If I know or consider merely the fact that something is a colour, this does not determine what special sort of colour it is. This is determined only by further propositions in which it is asserted to be red or to be blue. So understood, the distinction is relative to the knowing mind. It is what Mr. Johnson calls "epistemic".[1] In this sense I am myself prepared to use the terms determinable and determinate. But in this sense the distinction is applicable to substances as well as adjectives. If I consider something merely as being an animal, this leaves undetermined the question whether it is a mouse or a man.

Mr. Johnson, of course, means far more than this. For him the relation of determinable is constitutive, not merely epistemonic. It is a relation between qualities as such; and for qualities it takes the place of the distinction between degrees of generality which is supposed to hold only for substances. According to Johnson, colour is not a general kind of quality comprising redness as a sub-kind. On the contrary, colour and redness are both singular, each standing for a single positive quality. Colour, he tells us, though negatively it may be said to be indeterminate, "is, metaphorically speaking, that from which the specific determinates, red, yellow, green, etc., emanate; while from shape emanate another completely different series of determinates such as triangular, square, octagonal, etc. Thus our idea of this or that determinable has a distinctly positive content, which would be quite inadequately represented by the word 'indeterminate'."[2] On this view the proposition "red is a colour" means that a single positive quality red is related to another positive quality colour by a peculiar relation appropriately named that of a determinate to its determinable. Now it seems to me that Mr. Johnson has not only failed to show that there is such a relation, but that he has also, in the course of his argument, suggested a cogent reason for denying it. He points out very clearly that red

[1] The proper form is "epistemonic", but the barbarism is convenient.

[2] *Logic*, Vol. i. pp. 174-5.

is not recognised as a colour through any quality distinct from itself and shared in common by it and all colours, as redness is shared by all red things. As he puts it, "the several colours . . . are given the same name colour, *not* on the ground of any partial agreement, but on the ground of the special kind of difference which distinguishes one colour from another".[1] I would add that there is a peculiar kind of resemblance as well as of difference. The point is that red and yellow do not resemble each other in one character and differ in another. The respect in which they are alike, *i.e.* colour, is also the respect in which they are dissimilar. The same holds for squareness and roundness. As the late Professor Cook Wilson used to say, "square shape is not squareness plus shape; squareness itself is a special way of being a shape".

Are considerations of this sort inconsistent with my view that "redness" is a subclass of the more general class "colour" as "red things" is a subclass of "coloured things"? There would be an inconsistency only if it could be shown that a red thing is distinguished from a yellow thing not merely by its colour but by some other character. But, as Mr. Johnson himself expressly points out, this is not so. In the logical division of a class of things into subclasses, the *fundamentum divisionis* is always a determinable adjective predicated of every member of the class divided; and the subclasses are always distinguished by determinates of this determinable. It is true, indeed, that a concrete thing is, or implies, the concrete union of many characters which are not related to each other as determinable and determinate. Hence it is possible to select this or that indeterminate adjective, simple or complex, as a basis of division. Thus we divide books according to their size or according to their binding. But a subclass is never distinguished by the presence or absence of a fresh adjective which is not indeterminately applicable to all members of the wider class. When we divide books into bound or unbound, the *fundamentum* is the status of books as regards binding; the term unbound has a positive meaning as

[1] *Logic*, Vol. i. p. 176.

applied to books which it would not have if applied to coals or candles.

There is nothing in these statements which is not fully accounted for if we suppose that the distinction of general and particular and of degrees of generality in things is constituted by, and therefore presupposes, a precisely corresponding distinction of general and particular, and of degrees of generality, in adjectives. On the other hand, Mr. Johnson's view is not really self-consistent. Assuming as he does that redness is a singular term, and denying that colour is a class including redness as a member, he is bound to regard colour also as a singular term. As such it can only stand for a single quality, just as redness stands for a single quality. What, then, can be meant by saying that red, green, or blue are colours? What is asserted cannot be that each is identical with colour. For they would, then, be identical with each other. We seem compelled to say that redness is in part identical with colour and in part different. It must be a complex including the indeterminate quality colour which is equally present in blue and green, and also a determining quality which distinguishes it from blue and green. But, as Mr. Johnson has himself shown, this is untrue. There is no determining quality which makes the determinable determinate. We must, therefore, give up the initial assumption that redness and colour are singular terms.

They are both general, *i.e.* distributive terms. Redness, considered as a completely determinate general term, stands for the distributive unity of particular reds. To be a particular red is to be *either* this, that, or the other particular instance of redness. Redness in general is comprised within a more comprehensive unity called "colour in general", which also comprises yellowness and blueness. Every particular instance of redness is a particular instance of colour. Colour in general is nothing but the distributive unity of its specific sub-kinds, just as these are ultimately the distributive unity of their particular instances. To be a particular colour is to be a particular example *either* of this, that, or the other special kind of colour. The words

"either, or" mark the distributive tie, and exclude the conception of colour as a single though indeterminate quality.

The distinction of the determinable and its determinates, though it presupposes generality, has none the less, as I said before, its own place and value if we regard it not as constitutive but epistemonic. In particular it is important in considering the nature of propositions. I have included this topic in my title. But I have left myself so little time, that I must be content with a brief indication of what I intended to say about it.

A proposition, whatever else it may be, is something proposed or set before the mind as the object of certain subjective processes—questioning, doubting, asserting, supposing, and also practical deliberation and decision. Belief and will do not necessarily consist in such processes. I may be aware of myself as sitting at a table and writing, without mentally asserting that this is so, and without at all questioning whether it is so or not. There is knowledge about things without any explicit mental act of judging. Similarly, I may voluntarily shake hands with a friend without any thought of doing otherwise, and therefore without choosing or deciding to shake hands. What is thus taken for granted constitutes a vast and vague background from which propositions emerge here and there.

Nothing takes shape as a proposition, either theoretical or practical, unless it is in some way suggested, however transiently, that from some general point of view it may or might be otherwise. If the thought of its being otherwise is prolonged, there is questioning or practical hesitation. If it is still further prolonged, and developed in detail, there is doubt or deliberation. Thus we may say that a proposition is apprehended as a possible alternative. What then is an alternative? There are two meanings of the word, distinct though inseparable. In one sense an alternative is such only relatively to the variable knowledge and interest of the individual. But this presupposes that the objective universe is so constituted as to present alternatives to the knowing and willing mind. Their existence is ultimately implied in the existence of general classes or

kinds, of generalities as the distributive unity of particular instances and subclasses. To have shape is to have this, that, or the other special sort of shape. This holds good whether or not some one knows which special shape the thing in fact has. Even when the thing is known or believed to be square it is still true that it is either square or round or octagonal or so forth. But a mind interested in the specific shape, and already knowing it to be square, need not and does not concern itself with the existence of other alternatives, unless one is suggested, for example, by the words or behaviour of other persons. Otherwise the proposition that the thing is square will not be asserted at all as a separate proposition. In mere supposition, the mind attends to the nature and implications of an alternative as such, ignoring, either provisionally or entirely, the question whether it is realised or to be realised. Consider the following. "If I get this post I shall have no time for research work." "If I had been appointed to that post, I should have had no time for research work." "If there had been no carbon there would have been no organic life." "If there were no incompatible qualities, the logical law of contradiction would have no application." These are all statements that one possibility A is so connected with another possibility B that the realisation of A implies also the realisation of B. This is what "if" means. Such propositions rarely occur where the alternative A is already known or fully believed to be realised, or where it has already been practically decided that it shall be realised. On the contrary, they occur frequently where it is known that the alternative is not, and is not to be, realised. They are then called fictions.

This view implies that there really are alternative possibilities. Now, in the most natural and common use of language the real and possible are correlated and opposed in such wise that it is as absurd to say that the possible *qua* possible is real, as it is to say that what is above is, as such, below. None the less, possibilities as such are not mere inventions of the understanding, or mere appearances. They really exist. Their existence is not merely possible. When

a man has to choose between death and apostasy, these alternatives are really contained in the general situation with which he is confronted. But only one of them is realised. Which of them it shall be depends on the man himself. Only determinism gone mad could deny that, to this extent, there is free-will.

The meaning of the adjectives "true" and "false", in their ordinary use, presupposes the conception of the proposition as an alternative. Alternatives are such only in relation to some real fact. One of them, and not more than one, is identical with the real fact. A proposition is true when it is identical with the realised alternative. To assert, deny, doubt, or suppose that this alternative is realised, is to assert, deny, doubt, or suppose what is true. The unrealised alternatives are false propositions.

Of course the distinction between truth and falsity holds also for the inarticulate domain of what is merely taken for granted. But it is only so far as alternatives are apprehended as such, *i.e.* as propositions, that we become aware of the distinction: then only can we consider and examine competing claims to truth. Even at this stage our assertions, denials, and doubts are, on the most important matters, conditioned and controlled by a vast background of what is merely taken for granted. If in this background there is anything which is incapable, from any point of view, of being apprehended as an alternative, then, though it may be transcendently important, we can never be aware of it as a proposition so as to express it in language and discuss it.

A word in conclusion on the metaphysical bearings of the logical doctrine of universals. I have already indicated how the philosophy of those who maintain the unity of the universe is affected by the view that universals are qualities and relations. But it plays an equally important part with Mr. Russell, for whom there is no universe, but only an indefinite aggregate of disjointed items, each conceivably capable of existing by itself. As an integral part of this theory, he disjoins particulars and universals as two intrinsically independent realms of existence. He finds it possible

to do this because, for him, qualities and relations are, as such, universals. Inasmuch as they are universals, they cannot in any way form part of the being of the particular things which they qualify or relate. On the other hand, inasmuch as they are qualities and relations, they cannot contain the particular things. Characters cannot contain what they characterise. It follows that the domain of concrete things and individuals in its own intrinsic being falls entirely apart from the domain of universals in their intrinsic being. From this point of view, we can understand Mr. Russell's distinction between acquaintance with things and knowledge about them, and his still more perplexing distinction between knowledge about and knowledge by description.

Plainly, the nature of general and abstract ideas is a topic which has the same philosophical importance now that it had for Berkeley; and however defective his treatment of it was, some things which he said deserve to be repeated even now—though with a difference.

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