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THE AFFECTIVE CONSCIOUSNESS



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THE AFFECTIVE CONSCIOUSNESS

BY

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OF BATES COLLEGE

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TO

EDITH FISHER BRITAN

WHO HAS HELPED ME TO SEE THE MEANING AND THE BEAUTY OF THE AFFECTIVE LIFE, THIS BOOK IS DEDICATED

PREFACE

SOME apology may seem due the public for another book on psychology. If so, the excuse offered is the fact that the present one undertakes to discuss a phase of the mental life that has received but a fragmentary, cursory treatment in the plethora of texts on this subject of recent years. Moreover, the affective life is not only one of the constituent aspects of man's mental life, but it is a phase that is rich in suggestion and in both popular and scientific interest. It is also that part, as we shall hope to show, that bears most directly upon those forms of reactions that are so well denominated these days as *human behavior.* To attempt to understand human nature and the conduct of men, without an understanding of his affective life, is like trying to understand a steam engine without any conception of the nature and properties of steam.

That this aspect of the mental life has had no systematic treatment since Ribot's *Psychology of the Emotions,* published in 1889, was a significant statement made at the recent Symposium on the Emotions at Wittenberg College. And while one aspect and another, especially the abnormal, has received attention both from psychologists and physiologists, it seems time that some more inclusive attempt be undertaken to throw light upon this phase of the mental life.

Regarding the attitude taken toward that prominent and valuable movement in current psychological discussion known as behaviorism, the title itself is indicative. That consciousness, and especially the affective consciousness, has a part to play in determining man's manifold

activities, is the position maintained, and, I trust, justified. This position, however, is by no means meant to negate or even to discount the positive contribution that has resulted from this purely physiological point of view. Behaviorism we accept as a legitimate standpoint from which to regard human reactions. Acknowledging its validity, however, is not equivalent to admitting its adequacy. For our part we have elected to follow a different method, from which also we hope to show that much that is both true and valuable in understanding human behavior can be discovered.

The content of the text in mimeographed form has been used as the basis of a course with my college classes during the past two years, and the results give rise to the hope that it may not be ill-adapted as material for an advanced course elsewhere. While it may seem that a discussion of the separate emotions would have been in order in such a text as this purports to be, it is to be remembered that much material of this sort is already available. Unless this ground has already been covered, such subject matter may very profitably be introduced. We have so far recognized, or perhaps succumbed to, this demand as to introduce a chapter on one of the most fundamental of these emotions, namely, fear. For the main purpose of the text, namely, to show the uniform presence and the function of the affective consciousness, such material though interesting was not vital.

While credit is given in the body of the text to the author and the text from which citations have been taken, it is fitting that a more personal word be added for the courtesy of the publishers for permission for such quotations to be made. I am glad, therefore, to acknowledge this courtesy and to express appreciation and thanks to the following publishers: D. Appleton & Company, The Atlantic Monthly, The Century Co. and The Century Magazine, the Bureau of Publications, Teachers College,

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H. H. B.

Lewiston, Maine
June 1, 1931

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THE AFFECTIVE CONSCIOUSNESS

CHAPTER I

THE MOTIVES OF MEN

LIFE to-day, as compared with conditions only a few decades ago, is tremendously involved, amazingly complex. Situations only dreamed of a few years ago are now not only real, but soon become commonplaces of our daily life. Life under the sea, in the high vaulted sky, conversations between men on the two sides of a continent or of an ocean, and now the picture of the person with whom one thus converses, these no longer excite the wonder of our sophisticated people. Kings only a few years ago never fared so well, traveled so easily or so far, saw so much, lived in so large a world, or could so readily find opportunity for an active vigorous life as can the humblest sons of toil to-day. In food, in comfort of dress, in opportunities for entertainment, for recreation, or for instruction few are they indeed in our own country who could not vie with royalty only a few decades ago. The minstrel and the jester could hardly compete with Charlie Chaplin. This rapid enlargement and development of man's environment is the startling wonder of the world to-day. And we had fancied, until the great war led us to reflect a little more deeply, that this enlargement of man's sphere of action was the true test and criterion of human progress. This broadening of man's horizon and his sphere of influence, does but reflect the inner growth and enlargement of his mental power. But the war, I say, has made us pause, perplexed and discomfited as we realize how close to the surface are some of the tendencies and impulses that we have recognized as

belonging to primitive man. In a material way, in the appurtenances of civilization, life has become complex, but so far as the elemental needs are concerned supinely easy and simple. Progress in this direction is indisputable, but are these improvements, after all, the real test of individual growth or of social progress?

With all these outward changes and improvements in government, in industry, in education, in sanitation, in a world made safe for the physical life, has there been a correlated change in the inner life, or does human nature remain practically where it was in the days of Plato and Aristotle? Is civilization, as was said so often during the early days of the war, but a veneer, and a veneer, moreover, that is readily cracked and peels off with surprising ease? Certain it seems, that the external changes do not betoken the profound inner modification that we had fondly, but too credulously, believed. There is one conclusion that is justified by facts too numerous, and too clear in their implications, to be successfully denied.

However the fact should be interpreted, it is true that man is capable of a rapid, and apparently a limitless adaptation to a changing and growing environment. Whether the muscles of the hand and arm are to aim a blow-gun, an arrow, or a high-power modern rifle the coördination of eye and hand are adequate for the task. Whether the demand is for chipping a piece of flint into a thin rather delicately shaped arrowhead with implements of only the crudest kind, or whether it is demanded to make a chronometer or a gigantic telescope, human skill is latent for successfully accomplishing the purpose set. The Indian undergoing fiendish torture without flinching, or the batting of an eye, and the surgeon operating on his friend with a hand unfaltering from emotion, alike betoken the same mastery of the mind over its instrument the body. The natives of the Fiji Islands, only yesterday the world's lowest cannibals, to-day are oper-

ating street cars, and probably Fords, and all the other appurtenances of civilization. Our own American full-blooded Indians yesterday roamed the plains and annihilated Custer and his band, to-day play Harvard in football or become pitcher or catcher on our major league teams. New reactions indeed they must make to stimuli of sense, but does this betoken any fundamental change in the mental life or even in the motives that actuate their lives? Is it not possible that all such modifications are more of the outer world of physical, bodily action than of the inner world of motives and of consciousness? Whether cannibals or conductors they still suffer pain and would avoid it, are elated by social approval, still love and hate, still feel and show parental affection and resentment, and are indeed still men and women though the motives that burn within have found new outlets, new means of satisfaction, new goals, and other methods of expression. In this sense, and it is by no means a superficial point of view, men and times do change.

But the impulses themselves, the motives from which all this outward change has come, have they changed also with the centuries or do they remain essentially unchanged? Does all this vast order of changed and improved ways of securing the basic physical and social needs betoken anything more than just this objective fact? Does it betoken a growing refinement of spirit, greater intellectual acumen, more effective self-control, a real inner change, or is our boasted progress confined merely to the objective world? It is futile to press these inquiries further at this point. The spoor we have struck is of game so elusive that mere scouting will not succeed; we must take our time and organize an expedition.

If we turn for the moment from the outer to the inner, from mastery over the physical environment to mastery of the self, from an understanding of the "laws of nature" to an understanding of the laws of mind, we are con-

scious of a marked inequality in the two sides of the equation. Nature is far more subject to human control than is man himself. Only five per cent of automobile accidents, it is said, are due to weakness in the machine itself. The rest in some way or another represents the human factor. Obviously, the human element has not yet been so perfectly brought under control as has the mechanical. And this failure is due primarily to the fact that man does not understand himself so well as he understands the world in which he lives. That there are excuses for this fact is true enough but this in no way controverts the fact itself. The human brain is, in fact, the most complex instrument or organ known to man and it will be years, decades, even centuries before the details that characterize its functioning will be known. The task before psychologists is still a colossal one. Hardly has the proper method of attack even been agreed upon as is evidenced by the divergent theories suggested and the radically different points of view that are maintained. Thus there are the introspectionists who gain their data by setting consciousness to observe itself, as it were. At the other extreme are the behaviorists who, while making daily use of consciousness to observe and record and interpret the objective facts upon which they rely, still deny it any function or significance in the behavior they would explain. Somewhere between these two extremes is another group, the objective psychologists, who rely like the behaviorists primarily upon observation for data and yet who are not so rigorous in their exclusion of consciousness from the story.

In such a case there is one conclusion that is both eminently sane and safe and offers most in the final subjection of this field of the inner life. Instead of wrangling too much over the theories of introspectionism or behaviorism, intellectualism or the instinct theory, and endeavoring logically to justify your favorite point of view, or

to refute the one that seems to you most erroneous, the wiser course is to support your own theory by making it justify itself by the truth it can produce. In the end that theory will be justified which produces the most valuable results, which goes farthest in explaining the manifold experiences of human life, and helps most to give man a rational control over the forces that are generated in the human organism. The behaviorists are working out to its logical conclusion the stimulus-response point of view. And certainly no one of their critics would, even if he had the power, autocratically forbid further experiment and investigation along this line. There are, however, other points of view and these, too, promise much if carefully and assiduously cultivated. It is, however, not a question of supplanting but of supplementing what others have found, or may find to be true.

When it is recalled how complex is the human brain and how remote sometimes is the response from the stimulus and how ignorant we still are of the physiological processes in any complex cerebral activity, it seems the part of wisdom not to neglect altogether the conscious processes that are the correlate of this neural activity in the higher centers. Granted even that they are but the shadow of the physiological, something of the position and movements of the sun can be learned even from the shadow. Indeed, if it were not for shadows even the light itself could not be studied or understood.

Illustrative of this functional complexity of the brain as it is being regarded more and more to-day we quote from a recent and standard, if but a brief text, on neurology:

> The theory of consciousness which seems best to conform to the conditions of brain structure and its observed unity is that each conscious state is an expression of the total equilibrium of the conscious mechanism, and that intercurrent stimuli are con-

tinually shifting the equilibrium from one to another class of activities. In other words, the sensation accompanying a given color presentation is not due to the vibrations in the visual center in the occipital lobe, but to the state of cortical equilibrium or the equation of cortical excitement when that color stimulus predominates. Previous vestigial excitements and coördinations (associations, C. J. H., see p. 37) with the data from other cortical centers all enter into the conscious presentation. As the wave of excitation passes from the visual center to other parts, the proportional participation of other centers increases, producing a composite containing more distantly related elements.

Every specific sense-content with its escort of reflexly produced associated elements causes a more or less profound disturbance of the psychical equilibrium, and the nature of this disturbance depends not only on the intensity and state of concentration, but very largely on the kind of equilibrium already existing.[1]

What any reaction to a stimulus will be is a joint product, a product of the objective stimulus plus the present condition of the organism. And this inner condition so far as we can see must be interpreted to include experiences and mental interpretations from earliest childhood. To leave out of consideration all of these inner experiences may simplify the process for the psychologist but when it is done he is not dealing with active concrete human life. All well and good, the physiologist will say, provided you interpret this registration of past experience in terms of modified nerve structure. But when it is remembered how little the physiologist actually knows about nerve impulses, and their physical correlation in attention, and that as yet he is unable to state with any assurance from a study of the brain itself what may have been the experiences of the person in life, it were folly of the grossest form to neglect the record that we have of such experiences. So we shall not hesitate to use such introspective evidence as we have awaiting the time when the physiologist and the behaviorist can go further than they can at present.

[1] Herrick, *Introduction to Neurology*, pp. 345-46. Quoted from C. L. Herrick.

Whether the outward stimulus or the inner condition is the more important in determining the character of the response, may, since both are necessarily involved, seem an idle question. There is, however, even here a principle involved that deserves recognition as we look at the field before us. In the lower forms of response as in simple reflex action, the stimulus alone, given the reflex arc, is enough to guarantee a uniform reaction. But in the higher types of reaction, central factors count for more and more, so that the same uniformity is not guaranteed even with identical forms of stimulation. The complexity involved therefore is more complexity of inner organization, than it is subtlety or selectivity in the stimulus itself. As we rise in the scale, therefore, whether philogenetically or ontogenetically, the inner organic factor becomes increasingly important. The *stimulus-response* theory, therefore, though fairly adequate in the lower forms of life, cannot be accepted as adequate for man. To an ever-increasing degree, central factors whether under the nomenclature of "instincts," "Gestalt," "reaction patterns," "drives," or "motive," must be recognized as playing a vital part in determining what the reaction will be.

But when it comes to the true character of this central organization, because of the lack and uncertainty of our knowledge, different theories have been proposed and accepted. The "instinct" psychologists, for example, have regarded this inner organization with the resulting tendencies to action as inherent in the development of the nervous system itself. They have almost hypostatized these tendencies to react in certain ways and regarded hunger, fear, anger, love, curiosity, and the like as distinct entities. Under this conception they are inborn, native, inherent, "ready-to-wear," as it were, and so guarantee that the fundamental needs of the organism shall be met, however diverse the conditions of life, and however inexperienced the organism may be. Such a

theory it is obvious not only meets the demands for an explanation of the many remarkable adaptations the organism shows, but it offers an explanation of the many similarities in reaction found in the different members of a species everywhere. The theory is adequate for the burden it is meant to bear but adequacy is not a sufficient guarantee of truth.

The instinct theory to-day is being widely attacked and with at least perceptible results. If the concept is not to be given up it must at least be carefully and somewhat drastically revised. The chief point of criticism against the instinct theory is that it has been used too readily, too uncritically to explain actions that are capable of being further analyzed and regarded as joint products of use or experience and of certain central tendencies. Bernard in his recent book *Instinct* has done much to make necessary a more critical use of the term. And yet it is doubtful whether the criticism thus far will compel us to give up completely the idea and to revert to Locke's conception of the mind as a blank sheet of paper, a *tabula rasa,* in which there are no tendencies or predispositions until experience has produced them. "Reaction patterns," "prepotent reflexes" are still assumed and are made to supply the place of instincts. According to McDougall, the great proponent of this theory, the various instincts are the motives that constitute human nature and are, in fact, the various "drives" that we find everywhere in the lives of men.

The theory held by the attacking party is no less definite, comprehensive and clear. These common forms of reaction are not inborn but are made, made by the sole method of use or experience. Not instinct but habit is the great explanatory principle of the reactions that man makes to his complex environment. The nervous system, it is true, is given with almost infinite potentialities for reactions both simple and complex. Based upon a gen-

erous number of reflexes, some of them prepotent, the babe is born ready to begin the accumulation of a number of reaction patterns characteristic of his species and of his social *milieu*. Use reduces the synaptic resistance so that these forms of reactions function almost with the fatality of true and basic reflexes. Instead of inborn tendencies explaining the common reactions of man, it is the common environment that leads to these characteristic modes of response. Thus is the innate the instinctive, to be supplanted by the functional principle of habituation. That psychology at present is qualified to decide the issue is doubtful. That both positions are still held by able men would seem to indicate that the time for taking evidence has not yet passed.

There is another recent and growing school of psychologists that mediate in some respects between these two extremes and is therefore so far to be considered with some favor. The Gestalt movement lead by Köhler is the theory referred to. Their central principle is that the brain is not an indifferent maze of possible reactions at the mercy of chance experience, but that there is a "form," a partial organization of the brain so that certain reactions are bound together as it were. The theory is opposed to the simple reflex, or stimulus-response theory at least to the extent that the response is something far more complex than a simple muscular or glandular reaction. This latter conception, Lashley has shown is far too simple to accord with the facts.[8]

The differences between these schools of thought are so much to the fore in current discussions that it is easy to overlook the essential points of agreement. Read over McDougall's list of instincts as given in his *Outlines of Psychology,* and Allport's enumerations of prepotent habits in his *Social Psychology* and there is agreement on the basic fact that man possesses a number of tendencies

[8] *Vid. Psychological Review,* 37, 1930, 1-24.

to action, "reaction patterns," that predispose him to respond in certain very definite ways when appropriate stimuli are received. Not only so, but regarded from the mental side they appear as impulsions, underlying drives that give such stimuli the prepotency that they possess. McDougall regarded this conative impulse as part of the instinct involved. Dewey sums up the situation in the words that, "Habits are will." Without discounting in any way the importance of the issue involved in these two points of view, is it not true that the differences of opinion relate more to the process by which such impulsions arise than to the question of their reality? Upon the latter point, the two schools are in essential agreement. Man possesses, either by nature or nurture, these tendencies to respond in definite ways to certain stimuli and these tendencies appear in consciousness as impulsions, or drives, or motives to these types of reactions. It is in these that our chief interest lies.

There is another divergence in psychological theory that bears upon the discussion that lies before us. Psychological theory in its beginning held to the standpoint we know to-day as *intellectualism;* the theory, namely, that all conduct arises from rational consideration. To Socrates, knowledge was equivalent to virtue, that is, to right action. Show man what is for his best interest, and being a rational or reasonable creature he will be guided by that knowledge. The theory as a theory is no longer found in current psychological discussion. Not only is the whole behavioristic movement opposed to it, for there all consciousness is futile, but the modern evolutionist's point of view has come to stress the emotional reaction more than the cognitive as the real incentive to action. Under the intellectualistic theory man was regarded as a rational being, rational not as an attainment but as a birthright; and this being his dominant and distinctive trait truth was within the easy reach of every

normal individual. True, men did not always agree but this was proof not of the inadequacy of the theory but of moral perversity. Thus there was no place for differences of opinion especially upon such vital topics as theology and religious dogma. And naturally enough the proper treatment for this moral turpitude was not education or tolerance but punishment, persecution. The reader may feel that an apology is due him for presuming even to mention a theory that is as dead as is the belief that the earth is flat, or rests upon the back of a great turtle. But while no modern psychologist would be guilty of accepting such an anachronism, the point of view of which it was an expression still exists. Knowledge is virtue, or at least, the indispensable perquisite of virtue. Herbert Spencer's words are a classic expression of this supreme faith in the power of knowledge to guide us aright and to furnish the motive power as well:

> Thus to the question with which we set out, What knowledge is of most worth—the uniform reply is, Science. For direct self-preservation, or the maintenance of life and health, the all-important knowledge is—Science. For that indirect self-preservation which we call gaining a livelihood, the knowledge of greatest value is—Science. For the due discharge of parental functions the proper guidance is to be found only in—Science. For that interpretation of national life, past and present, without which the citizen cannot rightly regulate his conduct, the indispensable key is—Science. Alike for the perfect productions and highest enjoyment of art in all its forms the needful preparation is still—Science. And for purposes of discipline—intellectual, moral, religious—the most efficient study is once more—Science.[8]

This theory of human conduct so eloquently and so comprehensively expressed is possessed of enough truth not only to have the approval of the leaders of thought during the past century but to have shaped our civilization and our institutions since the Middle Ages. And it was no less the very inner spirit of the Greek outlook on

[8] Herbert Spencer, *Education*, pp. 93-94.

life when it had both with Socrates and with Plato a formulation and a practice that will never be forgotten. And to-day it lives in our institutions, in our faith in public education, in our belief in democracy, and in our still glowing hope that Science will succeed not only in molding nature to our will but in shaping human nature more closely to our own best conception of what it should be. That there is a rich measure of truth in this conception we are more than ready to admit. That knowledge is indispensable for social progress and for the attainment of the ethical ideal is also true. But what is indispensable is not necessarily adequate. Water is indispensable for life but it does not serve the purposes of food or oxygen. And so it is with knowledge. It is indispensable but man, whether fortunately or unfortunately, does not live on truth alone.

As a matter of fact this theory of human motivation has for long years vitiated and nullified the earnest efforts of man to redeem society from some of its chronic ills. Think for a moment what it implies and where it leads! Accepted at its face value it implies that a mere increase in knowledge is the panacea for all of our social and private ills. War, for example, can be avoided by simply showing that it is economically wasteful, politically futile, inevitably destructive. Show the child that honesty is essential for success and being a logical person he will practice this virtue. The theory is clear, the way to success is easy, too easy, in fact. Not training, not the formation of good habits, not a better, healthier environment, not the formation of ideals, not the cultivation of character, not the formation and fixation of our emotions upon selected and worthy ends, but the wider dissemination of knowledge concerning causes and effects in matters relating to our physical and social life; this is all that is required to inaugurate the millennium.

Not so certain are we to-day that mere knowledge and

more is the panacea for all human ills, the great preventative, and the one safe and sure guide to all that mankind now hopes for. Unfortunately for the theory and for man as well perhaps, the emotions do not feed on truth alone. It is only the matured, the disciplined will that seeks first truth and its blessedness: others find excitement and sustenance in experiences that are hardly justifiable from a strictly logical point of view. However desirable it may be that man should live by truth alone, the fact is that he finds satisfaction and mental profit in fancy, in imagination, in excitements that burn, in impulses that are known to be in the long run injurious, in satisfying desires that are momentous in the satisfaction they promise, but only momentary in the pleasures they bring. If it be true that the emotions play any part in shaping conduct, and that they are excited by aught but truth, then science alone will not suffice. Truth though it may give rise to some of the finest thrills of life is not a complete intellectual regimen as common opinion well recognizes.

The subject of the motive value of knowledge is a subject to which we shall return. When, and where, and how far knowledge is effective in guiding men, and in controlling their reactions is a theme too comprehensive to be treated in an introductory chapter, too important to be passed by with only this brief notice. It touches in fact the profound topic of man's rationality, the place and significance of his emotional life, and goes far to determine what any successful social program must include.

In contrast to this intellectualistic point of view McDougall suggested a theory which he called the "hormic," theory, the theory that conduct is determined not by knowledge but by impulses that arise in connection with the instincts. And in his discussion of the instincts the emotions played a major part. It is not our

purpose to take sides upon this theory. I am rather inclined to believe that what is most valuable in the work that he has done is to call attention to the significance of the emotions in motivating human nature. At any rate, what we shall aspire to do is to look into the nature and function of man's affective life as it is found from its simplest forms of sensory pleasantness and unpleasantness up through the emotions to those more abstract and intellectual affective reactions found most clearly and unmistakably in cultured man. The affective consciousness has too long been divided like Gaul into three parts, sensory pain and pleasure, the emotion, and the sentiments. What is essential for a satisfactory theory is that the common element in these be recognized and its functions in man's everyday activities be made clear.

If the emotional consciousness, in contrast to the intellectual, long suffered from neglect in psychological theory, that time is now past. One of the net results of the evolutionary point of view has been to emphasize the points of similarity between man and the lower animals, and this similarity in the emotional nature has stood out more prominently than similarity in intellectual processes. Darwin himself in his study of emotional expression in animals started this new movement. Gaining momentum all the while it reached its climax in McDougall's *Social Psychology* in which the basic assumption is that every important activity in which men engage finds its roots in some one of the instincts. Desire for fame, wealth, political eminence, family, automobiles, yachts, learning, wife, sweetheart, friends, or whatever you will, finds its roots in some instinctive tendency and without this root would be powerless to awaken either desire or striving. The emotions, and this is the point that interests us, are but the subjective aspect of these inborn tendencies, the instincts. So while his psychology is properly regarded as based upon the instincts, the emo-

tions as an integral part of these, do come in for a fair share of attention and are given a vital part to play in the determination of human conduct.

And while the final status of the instinct theory, as we have said, remains yet to be determined, this in no way has served to diminish interest in the emotional life. Rather the tide is in the other direction and no subject to-day elicits keener interest, or serves better to determine one's psychological point of view than the theory held as to the nature and import of the emotional consciousness.

The behavioristic standpoint has changed completely the point of attack of psychology. Not mental analysis, but explanation of behavior of human conduct, is now the primary objective and this, it is not too much to say, can be better done without consideration of the cognitive consciousness, than to omit the affective. But why discard or neglect either is certainly a pertinent inquiry? And so in regard to the relation of the emotions and the so-called instincts, facts are facts and no theory can change these stubborn things. That there is a modification of consciousness as well as of bodily action in fighting, in fear, in curiosity, in parental, and sexual activity, is as certain as any other fact in the physical sciences. To deny is here to stultify oneself, to ignore is to refuse to consider all the facts in the case.

Anger is an accompaniment if not a cause of fighting. Fear is a part of that comprehensive complex of reactions of escape. Parental love does instigate or accompany protection and nurture of the child. There is a mental component going with sexual excitement. By every test of experience both of introspection and of experiment the connection holds. But the correct theory to be inferred from these facts is not so obvious. McDougall made the obvious, but not necessarily the correct inference that the emotion is an integral part, the subjective part, of the instinct. The true character of the affective

consciousness does not appear, I believe, by considering these examples alone. What is needed is a theory of the affective consciousness in general, a theory that will hold true from the simplest forms of sensory pain and pleasure, up through the emotions to the more refined and intellectual forms of the affective consciousness as found in the æsthetic and logical and ethical experiences. These are all of the same inherent character and any satisfactory theory of the emotional consciousness must recognize this basic fact. Such a theory if it can be found, would doubtless serve to explain the obvious connection between the intense affective tone and the pronounced impulsive action found in the case of the so-called instincts, but it would serve no less to interpret the simpler forms of sensory pain and pleasure, and the higher, more intellectual emotions. McDougall's theory, therefore, is not comprehensive enough in its scope. It is based upon a special case, significant enough in its way, but hardly a sufficient basis for a theory of the affective consciousness in general.

If there is any generalization that it is safe to venture, it is that with man motives are legion, and each manages to find expression in the everyday life of man. Motives come and go in the consciousness of man, are uppermost and potent now, another soon succeeding it. Now it may be duty toward wife or child, but this is forgotten in some business deal to be consummated, or some scientific interest to be pursued, or the daily round of golf, or some philanthropic purpose that has engaged attention. Then there is that mocking, but siren call for fame, or social standing, or even a fleeting desire for character and moral perfecting of one's life. It is this rapid change of mental scenery behind the footlights, the eternal movement of imagery and ideas with their resulting seductive impulsion that makes it so difficult to generalize or to prophesy which direction man will turn.

Thus through this multiplicity of motives that come and go, man is both good and bad, saint and sinner, kind and cruel, hard and yielding, mercenary and unselfish, a coward and a hero, a Galahad and a satyr, a Shylock and a kind father, a student and a voluptuary, as one or another motive dominates for the time the conscious life. One writer has well worded the thought in the following lines:

What then, is the nature of Man? Again we cannot follow out in all the ramifications and technical details the new story of the new man; a brief summary must suffice. A man is both a repository of past racial and biological activities and experiences, an accumulator and organizer of new experiences on such a basis, and finally a dynamic instrument of reaction in the light of purposes and desires, some of which he has also inherited and some of which are the product of his personal span of existence and consciousness. The first element, the racial and biological results in certain propensities to act thus and so in a given situation: that is, given a situation in the environment, man will, apart from training and personal experience tend to act in a given manner. This, in the young child, is relatively simple, but the course of personal experience and growth often complicates, without destroying the original element, such primitive modes of response. Emotions, instinctive activities, reflexes, are such types of conduct, and it needs but a very little unbiased observation of self or neighbor to form a very wholesome estimate of both the power and the variety as well as the frequency of action based in whole or in part on such inherited bases. The second element, the accumulated and organized element of experiences, again offers a fertile field for observation and experiment; how much of what, as adults, we do and desire to do, is based on very early, and perhaps forgotten experiences, complicated, it may be, by the first more fundamental element of racial inheritance.[4]

Man as an organism, we are coming more and more to recognize is too complex, his interests too varied for his reactions to be reduced to a system of rules. The best that we can hope for at present is the discovery of

[4] Daniel Bell Leary, "The World Order and the Original Nature of Man," *International Journal of Ethics*, XXXII, No. 3, p. 320.

some of the principles that actuate and motivate his conduct. Man is not a robot where a given stimulus can be counted upon to produce a uniform result. With this inner system of motives, some one now dominant and others dormant, with the individual constantly undergoing and registering experiences of various sorts, with knowledge of consequences playing its part, with some particular emotional excitement modifying the bodily reaction and the cognitive ones as well, with even the subconscious and forgotten experiences modifying our emotional life, the reacting organism is never emotionally or cognitively or physiologically indifferent to evaluation and interpretation as the mechanical theory implies and demands. A hungry man and a man well fed do not react the same way toward food, but no more do they toward communism or art or to the social order. An angry individual is a difficult customer to do business with as even a child soon learns. Even men of different political or religious affiliations have difficulty to see eye to eye. In all such cases it is not a simple matter of stimulus and response, but the affective factor steps in to modify sometimes profoundly the reaction that follows.

To us it seems almost axiomatic, therefore, that a study of the normal affective life of the individual is essential for a fuller and clearer understanding of human nature, and offers much in acquiring a more effective control over the actions of mankind. Indeed, it is doubtful if such control can be attained in any other way. Certainly to attempt to understand the behavior of men without any consideration of their affective life is a monstrous if not a fatal oversight. To ignore pain and pleasure, fear and anger, man's prejudices and aversions, his hatreds and his antipathies, his friendships and his loves, his allegiance to ideas and ideals, his moods and his temperaments, his lusts and his loyalties, his selfishness and his sacrifices, is not to see him as he is. Man without feeling, man unmoved and unchanged by his affections,

man ruled solely by knowledge, would be more easily understood and more readily controlled, but not such are the men we meet around us, with which both psychology and social reforms have to do. That the emotions play a vital part in determining actions in abnormal cases we are in a fair way to recognize; what we need to realize if we would see man in his true nature, is that the same principle largely holds for the normal individual as for the abnormal.

REFERENCES

McDougall. *Social Psychology,* Chapters I, II, III, IV.
Dickinson. *Economic Motives,* Parts I, II.
Dewey. *Human Nature and Conduct,* Introduction.
Tead. *Instincts in Industry.*
Thorndike. *Educational Psychology,* Vol. I, Chapter IX.
Allport. *Social Psychology,* Chapters II, III.
Wallas. *The Great Society,* Chapters I, II, III.
Woodworth. *Dynamic Psychology,* Chapters VII, VIII.
Bagby. *The Psychology of Personality,* Chapters I, II.
Coe. *The Motives of Men.*
Edman. *Human Traits,* Chapters I, II.

PROBLEMS FOR FURTHER STUDY

1. Is human behavior ever determined by any single motive?
2. Why do psychologists so often fail to show any superiority in dealing with men and with practical social problems.
3. What is the working theory of human nature usually held by our law makers?
4. In what respects are ideals or motives superior to practical necessities? In what respects inferior?
5. What is the behavioristic conception of, or substitute for motives?
6. What is McDougall's theory of the way in which some one instinct acquires prepotency?
7. What new physical adaptations are demanded by the use of the automobile? Has it created new or only modified old motives?
8. Why is it so much easier to bring about changes in the psychical environment than to change human nature?
9. Distinguish between the psychological and the ethical use of the term motive.

CHAPTER II

THE MOTIVE VALUE OF KNOWLEDGE

PSYCHOLOGY of recent years has taken as its prime objective the explanation of the specific reactions of the individual, that is, his behavior. The aim therefore is specific, relates to the objective world, and is of supreme practical importance. The acceptance of this point of view has done more than any other one thing to popularize this subject and to put it in the category of the objective sciences. In following out this commendable ideal it is easy to neglect data that were once the whole content of the subject. The formula S—R that has seen heroic service during the past decade is to-day coming to be regarded as too simple to be true to the facts involved. This conclusion is asserted by Lashley in his address read before the congress of psychology at New Haven in Septemper of 1929, and is the implication of the *Gestalt* psychologists. Woodworth also in his revised *Psychology* introduces an O between the S and R, the O symbalizing the organism and its varying condition. And this O may be accepted whether it be interpreted in purely physiological terms or whether an introspective interpretation be assigned to the term. In other words, it is the organism that responds, not simply some muscle or gland. Internal factors therefore have their share in determining the result and for an adequate explanation must not be ignored or neglected. Included in this complex of inner conditions are drives, motives, habits, ideas, and, we believe, affective elements also have a part to play.

Modern psychology differs from the psychology of

earlier years not so much in the major questions propounded, as it does in the methods employed, the explanations offered for these problems. Thus it is often true that while the explanations suggested may become shop-worn or antiquated the problem itself is perennially recurrent and full of vitality. Such is the situation in regard to the subject of the present chapter. To what degree is the knowledge of the consequences of an act determinative of human behavior, is a question as old as psychological or ethical reflection itself. And yet the problem still awaits a final answer, is still vital, is still of profoundest import both theoretically and practically. Is knowledge the chief factor in determining conduct, or is the affective consciousness the great and only effective stimulus to action? Or, as radical behaviorism contends, are they both equally futile and at best epiphenomenal?

This latter hypothesis we shall at once reject as being too much in conflict with some of the most impressive experiences of life and too remote from common sense. We shall hold, therefore, that the introspective data are significant though in need of critical examination and evaluation. What, then, shall we conclude as to the motive value of knowledge?

The evidence on the question we have raised is so abundant and so conflicting that the first reaction is one of perplexity and mystification. Not only can specific facts and cogent arguments be cited both *pro* and *con*, but great fields of human endeavor seem to bear strongly one way or the other.

The problem, possessing as it does a pronounced practical or ethical aspect, has not escaped the attention of writers upon the subject of ethical theory. In fact as soon as ethical reflection began philosophers were faced with the pertinent inquiry, How can virture be acquired? If knowledge is of itself sufficient to determine conduct the answer is clear. The road to knowledge on practical

questions is also the road to virtue. The dissemination of knowledge is also the spread of virtue. If this position is ill-founded, it means that many of our best efforts at public education leave the problem of conduct and of character essentially untouched. This is where practical issues are involved. Do ideas, then, we ask, exert an influence over conduct by virtue of their logical content, or only by virtue of the affective component they possess?

To present the problem in a little less abstract form, and looking for the moment to practical consequences, we would raise the question whether the dissemination of knowledge relating to matters of conduct through the public schools, for example, is an adequate or effective means of modifying conduct, establishing useful social habits, or of forming those fixed modes of reaction that we call character? Will information as to the deleterious effects of cigarettes or even of drugs prevent the formation of habits of using either? Is the dissemination of the knowledge of the effects of alcohol the true method of promoting temperance and even of total abstinence? Will knowledge of penalties for crime, even provided the penalties are as sure as they are in England, prevent infraction of our laws against crime? To such inquiries the most conflicting answers are being given both formally in psychological and ethical theories, and informally and indirectly in laws and social practices, that are designed to secure results looking to the establishment of justice, the development of character, and of altruistic social regard for others. Such is the problem that confronts us and such are some of the practical issues involved. Our immediate interest, however, is strictly psychological, not practical. In carrying on our investigation as to the part that the affective consciousness plays in human experience, it is obviously impossible to neglect all reference to a theory that is so intimately related to the question as is the one underlying the subject of this chapter.

It was said a moment ago that the problem is an ancient as well as a modern one. As every student of Greek thought knows full well, Socrates' name is inseparably connected with the belief that knowledge is fundamental as a motive. "Knowledge is virtue." That is to say, the problem of right conduct is compassed in the problem of discovering what is right conduct. To know what is best for onself is equivalent to doing it or, at least, to an honest attempt to put such knowledge into practice. For surely, it might be argued, a person will not do what he knows to be against his own best interest. Convince a man that honesty is the best policy and straightway he will begin to practice this virtue. Show indubitably that the way of the ungodly shall perish, and surely no one will wish to be found upon that thoroughfare. Get some master of logic and statistics to prove that in war both victor and the conquered are losers, and wars will cease. The world is to be saved through knowledge.

The opposite pole of theory is found historically in the teaching of Spinoza, who tells us that a "passion" can be overcome by nothing else than another "passion." Substitute for this term the word "desire" or "emotion" and we have his thought in more modern phraseology. According to this view mere knowledge is helpless against a strong desire; the only way this desire can be overcome or held in control is to oppose to it some other desire. Such are the two hypotheses as formulated by these two great thinkers of the past.

Turning from history to contemporary life and thought, we find the opinion and practices of our own times are hardly less contradictory than these opinions of the past. There are still those who hold tacitly if not explicitly that what is most needed for the development of good citizenship and moral character is a wider and a more thorough dissemination of information relating to matters of conduct. "Social morality," so called, can be

best attained by talks on sex hygiene and by information as to the evils and dangers of indulgence in this direction. Temperance can be made effective through the teaching in the schools of the physiological effects of alcohol and of drugs. Good citizenship is to be promoted by the study of civil government and history. Propaganda, a sane, scientific propaganda is to be the cure for our social ills. "The public schools, the hope of our country," is a watchword exalting the value of information as a purifying influence in the social structure.

In this connection we are reminded that there were those high in educational circles who relied upon knowledge of the economic effects of war to make war impossible. Their forecast of these results was not far astray, and yet war came and continued in spite of the economic disaster that stared all of the nations in the face. And what was true in this instance could be duplicated a thousand times in every age. In spite of knowledge of the ill effects of narcotics and drugs individuals by the thousands do become victims. It is not so rare an occurrence as to excite surprise or even comment to find medical students, men best versed, one would think, in such information, themselves giving way to this form of indulgence. It were easy to wax eloquent upon this weakness of human nature, to indulge in the cynic's smile, to take our seat with the scornful, when we recall how futile knowledge so often seems to restrain men from deadly dissipation, and to guide them into channels of health and happiness. Among an intelligent and enlightened people few are the sins committed that are not sins against, or at least in the face of, some knowledge of the evil consequences to follow. Is it not futile or even absurd to believe that knowledge is sufficient to determine conduct, and that the world is to be redeemed through science?

As we pause for the moment to reflect a little more carefully, we are encouraged by a new suggestion. "This,"

we say, "is the age of science, and science is knowledge, and our civilization, or at least a goodly part of it is the result of applying this knowledge to the task of meeting human needs, human desires." Has not applied science followed pure science naturally and has it not reaped bountiful harvests in making life safe, convenient, and richer in a thousand ways? Both physics and chemistry, and scarcely less, biology, and every science to some degree is busy turning theoretical truth into practical utilities. Can all of this, you ask, be denied to be the largess of knowledge? Mastery of disease does not come from idle or even urgent desire but by knowledge born of careful experiment and clear reflection. Men have desired to fly for centuries but it was experimental study that brought success. Knowledge it is, not dreaming, that is responsible for the great differences we see between the life of primitive man and the great monuments of our Western world. Knowledge is power or at least shows us the way to unlock and utilize the energy in the world about us.

> Who loves not knowledge; Who shall rail
> Against her beauty? May she mix
> With men and prosper. Who shall fix
> Her pillars? Let her work prevail.

The situations in which knowledge shows to the best advantage, in which, as a matter of fact, it seems determinative, are those in which the goal is fixed by some settled and urgent desire, and the problem is to find the best means of attaining it. In such cases the impulsion of the desire is behind the intellectual investigation serving as its motivation, and progress is then directly dependent upon the discovery of means to the realization of the goal in question. A careful examination of the more striking instances of our modern civilization will show that this is true. The desire for wealth, for exam-

ple, is an impulsion toward securing for one's self the manifold necessities and luxuries of his material, his intellectual and æsthetic nature. With this desire fixed the problem is to decide, "How?" Health is and always will be one of man's supreme and ever potent drives. And it is this that gives life and verve to all the research and investigation of therapeutics, to sanitation and to dietetics. Not that this one motive acts alone, or independently of others. Far from it. In our highly organized social system, research in this direction is connected up with economic reward, with fame or reputation, with a love of knowledge for its own sake, and often with many others. The time when wealth was measured in terms of food supply, clothing and shelter, the three basic economic needs, has long since and forever passed. The complexities of modern life, both subjectively and objectively considered, with the line of distinction between necessities and luxuries an ever-changing one, has resulted in an increase of motives or drives that should ever be kept in mind. But motives without intelligence are but blind impulsions, a ceaseless urge to action but with only the faintest realization of the nature of the goals toward which the individual is impelled. With this ever-increasing fund of desires there results a corresponding enlargement of the field for intellectual activity. Not only must intelligence find the way to their realization, but the problem of harmonizing and coördinating these impulsions becomes an ever more exacting one. The multiplication and perfection of the sciences therefore is not a matter that stands apart independent of the motives that stir in the minds of men. And it is when these drives are present in consciousness and make one feel the value of the goals desired that the problems for scientific research are set and made to seem as urgent as life itself.

There are ample reasons why knowledge should in this partnership get more if not all of the credit for the

amazing inventions and utilities of our modern civilization; reasons sufficient, apart from the just claim that may be urged for this aspect of our mental life. Motives it should be remembered are deep-seated, subconscious in many cases, and so do not advertise their presence or function. They are discovered only by analysis and are therefore more abstract than concrete, more subjective than objective in character. Intellectual investigation and experimentation on the other hand are the immediate antecedents of every one of these inventions and discoveries that constitute what we call our modern civilization.

As a consequence we are inclined to regard them as more the outcome of knowledge than of the drives that may be equally important. Knowledge, moreover, is the immediate objective of research, giving efficiency to our efforts, and registers its absence or presence directly by failure or success. Consequently apart from the fact that it is one of the indispensables in all that man accomplishes, it is in the favored position to receive notice and credit for man's attainments in the various fields of his endeavor. But silence the inner urge to action and man's laboratories would be deserted, invention would cease, research would become a burden not to be borne, and all the tools in this machine age would fall from listless hands and rust unnoticed even by the minds that created them. Yes, human intelligence can well point with pride to the civilization that it has done so much to create. Without knowledge and intelligence progress must cease, and man would revert back to the more elemental methods of satisfying his basic needs. This, however indisputable it may be, by no means proves that knowledge is the real dynamic of life.

There is another aspect of the picture, however, that is not so conducive to complacency or pride as is the record of man's scientific achievements. Turning from

the control of the physical environment, in which he has found such efficient methods of investigation and of applying the information thus acquired, to the satisfaction of the basic drives of human nature, to the social environment, we are confronted with the fact that there are in this direction large areas of conduct, where man still seems ruled more by prejudice and emotion than by the evident logic of the situation. And in the life of every individual there are times when action is determined not by clear judicial foresight of the consequences, but by an inner impulsion that gives seeming worth to the act in question.

It is significant that psychologists to-day include in their enumeration of the occasions for reasoning that of "self-justification." The term "rationalization" is now used for thinking employed to advance reasons for doing what one wishes to do, and illustrations are by no means difficult to find. "Declare war first and there will be no trouble to find reasons afterward for so doing," Bismarck is said to have remarked on one occasion. Do what you wish and any intellect worth having can surely find reasons to justify such action. Which means that in all such instances we do not follow our best judgment, but the intelligence seeks rather to justify conduct that was in fact actuated by some urgent desire. How true it is that in cases too numerous to mention we do employ our intelligence in just this secondary fashion! Our weaknesses we minimize, our prejudices we misname, our faults we excuse, our conceit we nourish, our sins we justify, our selfishness we support by arguments that we would refuse to admit did they not conform so perfectly to our desires. Such use of reason is abundant, alas, but its extended presence in the thought of men should not blind us to the fact that it is thought in the service of desire. Rationalization is one of mankind's most popular indoor activities. And in all such cases intelligence occupies not

the leading rôle, but is secondary to the dynamic urge of some strong and ruling desire.

Social reforms, therefore, are not effected by simply pointing out inconsistencies and weaknesses in the present system or practice, nor even by showing how they might be avoided and more wholesome conditions be made to prevail. There is in every social body and in every individual an inertia to be overcome, a resistance to change, an allegiance to the present order, that upon analysis proves to be affective not intellectual in its inner nature; due, not so much to demonstration of its superior character as it is to the satisfaction of habitual responses, fear of the untried, reverence for the old, established order, and the like. Through conditioning, that great principle of current psychological explanations, the pleasures, the satisfactions of life are tied to, connected with the events and the situations that have accompanied, even though they may not have produced them. Thus, where our emotional interests are involved, it is a fair approximation to the truth to say that knowledge seems of secondary, not of primary influence and importance.

Thus while the mastery of the forces of the physical world moves on apace and brings with amazing certainty and speed rich returns in inventions, machinery of all kinds, utilities and luxuries never dreamed of a few years ago, man has not so mastered the forces of his inner life that knowledge can with equal facility and effectiveness be put into service in producing a race of men with gentler manners, purer laws. Society's greatest struggle, because here the greatest danger lies, must be waged not against want and famine and disease, but against greed, selfishness, race hatred, international jealousies, that spring from tendencies of the inner affective life.

Thanks to the physical sciences man can now look a long way ahead with confidence in his ability to meet the needs of his physical organism. His confidence is neither

so great nor so well justified when he faces the dangers arising from a conflict of human desires and of human volitions. Race prejudice of the blackest deadliest type raises its head here and there throughout our land. Social customs and conventions and social evils persist in spite of their demonstrated viciousness. It is easy to be rational, intelligent, to utilize the best information we possess when the drive of some strong desire, some intense affection is behind the goal sought. It is not difficult to make one's acts conform to one's best judgment where action does not come into open conflict with any of the major drives of life; but when the action contemplated comes up squarely against some deep affective interest we meet with inertia and open resistance that knowedge alone seems powerless to overcome. Thus we find that ever-present, inner conflict in the life of man that poets and moralists of all ages have noted, *"Video meliora proboque, deteriora sequor."*

The first duty of the psychologists brought face to face with such a situation is not to minimize or ignore it but resolutely to regard it as a fact, a reality demanding explanation. To get a clear and adequate conception of the problem is usually the first direct step to its solution. Let us accept the fact, therefore, that for some reason or reasons man does at times show a wonderful capacity for utilizing knowledge as a guide to action, while at other times even the most convincing logic and a demonstrated certainty of unfavorable results seem powerless to prevent action leading thereto. Urge as you will, for example, the lesson of kinship and brotherhood that the doctrine of evolution implies, and still the fact of racial antipathy and caste will be unaffected thereby. Present the claims of the moral life with all the lucidity and force of a mathematical demonstration and yet it will often fail to motivate action. I recall that one of my own students dropped from college several years ago for a

major moral offense was a proficient student in the course in ethics. But such instances of action in spite of better knowledge are so numerous that they hardly excite curiosity as to their psychological implications. They do however constitute a fact with which any satisfactory theory of human behavior must reckon.

There are several ways in which this fact of man's dual nature has been interpreted. The oldest explanation offered was what we may call broadly the religious one. The center of control was not in man himself but lay in the supernal realm. There was a spirit of good and a spirit of evil, a God and a Devil. So the Greek conception of the Fates also illustrated this explanation. But this was in the pre-psychological era, and to-day psychology refuses to accept this transfer of the scene of human control. To-day the problem is still dualistic, but it centers around the problem of man's social and his emotional nature. Just how these shall be interpreted and their rival claim adjusted is not so clear. The emotions have been regarded as an impertinence, a handicap to rational control, a "monkey wrench" in the mental machinery, the chief, if not the sole cause of man's misdeeds. They are, therefore, something to be suppressed, extirpated from human nature, overcome. This is the way of the ascetic, of the holy men of India. It is an enormous undertaking but it is the only way. And something of belief in this method can be found in the Western world as well as in the Eastern. Thus even so careful a thinker as Huxley said that could he eliminate his emotions and become a cool, calculating, logical machine that would invariably do the right thing he would gladly close with the bargain. Such an attitude is due to a failure to appreciate the full significance of the affective consciousness in human experience, and to base one's judgment upon a few dramatic examples where the emotions seem to urge one on to conduct that is irrational and so harmful in

some of the effects produced. But emotions impel to useful reactions as well as to harmful ones as introspection and objective observation abundantly testify. To eliminate them therefore were to do away with good as well as with evil results. Hence, such a conclusion is based upon inadequate data, and must be rejected.

Again there are those who say that all human values arise from the affective life and it is the part of intelligence to find the best means of realizing the goals thus set. The emotions furnish the drive, fix the ends, intelligence directs the energy to be thus expended. That there is a goodly measure of truth in this way of conceiving the matter is doubtless true. Too often, alas, it is an all too accurate characterization of the conduct of mankind. It may, however, in such cases be a weakness into which men fall, without being either necessary or universal. Dewey, whose standpoint is more intellectualistic than some, and whose opinions on psychological problems is always worthy of the most careful consideration says:

> Analysis of desire thus reveals the falsity of theories which magnify it at the expense of intelligence. Impulse is primary, and intelligence is secondary, and in some sense derivative. There should be no blinking of this fact. But recognition of it as a fact exalts intelligence. For thought is not the slave of impulse to do its bidding. Impulse does not know what it is after; it cannot give orders, not even if it wants to. It rushes blindly into any opening it chances to find. Anything that expends it, satisfies it. One outlet is like another to it. It is indiscriminate. Its vagaries and excesses are the stock theme of classical moralists; and while they point the wrong moral in urging the abdication of impulse in favor of reason, their characterization of impulse is not wholly wrong. What intelligence has to do in the service of impulse is to act not as its obedient servant but as its clarifier and liberator. And this can be accomplished only by a study of the conditions and causes, the workings and consequences of the greatest possible variety of desires and combinations of desire. Intelligence converts desire into plans, systematic plans based on

assembled facts, reporting events as they happen, keeping tab on them and analyzing them.[1]

Another theory proposed by those impressed with the evolutionary point of view is that the emotions represent a temporary method of control, that is, a stage in evolutionary development but a stage destined to be supplanted by the higher and better means of cognition. Under this conception we are in a stage of transition, of dual control. Sometimes we utilize the later and better means of intelligence but in times of stress revert to the more primitive type of response. Preponents of this theory can point to an extended list of facts in its support both in the development of the race and in the equally impressive development of the individual.

Men do increase in wisdom with age, and as a rule learn to depend more and more upon logical consideration in selecting both ends to be striven for and in means to their attainment. The change, phylogenetically, is slow and difficult but the mills of the gods of evolution grind exceedingly slow. The reluctance with which the change comes and the exceptions and reversions to which it is easy to point are therefore no argument against the hypothesis. This is a theory however that does not touch the psychological problem except incidentally. That the time may come in a thousand or a million years when men will tread the high road of reason and follow explicitly the dictates of comprehensive intelligence does not resolve the inconsistencies we see in human conduct to-day or take away the demand for this immediate solution. What we wish is an explanation of facts as they are, in order that we may hasten the day of better control of the inner forces of human nature. At the best this theory, which we are inclined to believe has in it a substantial measure of truth, does little toward solving the psychological problem in which our immediate interest lies.

[1] Dewey, *Human Nature and Conduct*, pp. 254-255.

Or, finally, it may be contended that the affective and the cognitive aspects of consciousness are true complements of each other and that each without the other is fragmentary, and incomplete and even futile. The mental life as well as the physical is organic and each part that can be distinguished not only has its own specific function to perform, but it also coöperates with other functions so that the purposes of the whole are thus, and only thus subserved. Man needs intelligence, reflection, foresight, but with this he also needs some immediate and practical guide and incentive to the attainment of the ends foreseen. If intelligence has developed as an instrument of adjustment, as it is usually so regarded, then the affective consciousness must be recognized as playing an indispensable part in this grand strategy of the conscious life. See for instance how intimate the relation really is: if the sense organs of the body have developed to serve this great biological function of adjustment—the eye, the ear, the sense of smell and touch, then the report that these organs send inward to the central mechanism, namely, the sensation and perceptions must be accepted as serving the same primary purpose. But the use of these implies learning, memory, imagination, and reasoning. With no line of separation possible from the functional standpoint, we come logically and inevitably to the conclusion that knowledge exists primarily as a guide to action.

But the affective consciousness is just as intimately connected with sense organs and bodily reactions, with sensory and perceptual stimulations as is the cognitive. The same reaction that tells me that this is sweet, tells me also that it is pleasant. The same response that asserts that this is a rose gives me also the concomitant feeling that it is beautiful. In the higher forms of reaction there are intricacies of æsthetic factors as there are also of logical ones. But in the simpler sensory experience, as for example, in the perception of some bright saturated color,

the attractiveness is no less a part of the total reaction than is the recognition of the object or of the color. And in the case of pain the affective factor is unquestionably more direct and more pronounced than is the cognitive. If knowledge therefore exists for the sake of action, it is difficult to see how we can escape the conclusion that feeling too exists for the same practical purpose. Feeling and cognition are true complements of each other, each filling an indispensable place in the total experience. More detailed argument will appear as we proceed.

There is still another method of approach to the problem before us in this chapter. Is knowledge enough to determine conduct or is the impulsion of some affective factor needed to give the drive to action? The problem is essentially one of volition.

We turn therefore to examine one of the most clear cut of these theories, having in mind all the while its adequacy to meet the facts.

There is a theory of conduct called the ideo-motor theory worked out by James that is essentially intellectualistic, that is, it makes knowledge or ideas the vital factor in determining conduct. If this theory can meet the facts successfully, it would not only show that knowledge does modify conduct, but it even elaborates the method by which it is done. If it be true, as he contends, that ideas have inherently a motor element so that an idea in consciousness does automatically tend to express itself in action, this is a fact of immense importance in the solution of the problems we are considering. But if the theory fails, it is striking, though no conclusive evidence for the inadequacy of the point of view he supports. There is, therefore, much to be gained from the consideration of this theory and we must examine it with some care. It will be noted that he speaks in terms of consciousness, but as we have shown this seems necessary in the present state of our knowledge.

The primary factors that influence conduct are, he tells

us, reflexes, instinctive and emotional reactions. They are hereditary, and their proper stimulus excites them directly. For other possible movements the organism must wait until the nervous system has been opened up by chance or random, involuntary movements, "*A supply of ideas of the various movements that are possible left in the memory by experience of their involuntary performance is thus the first prerequisite of the voluntary life.*" [1] This supply of ideas may be of two kinds, *resident* or *remote,* that is to say, ideas or images of the ends, or outcome of such actions. At first, probably the resident ideas or kinesthetic, as they are now usually called, are most important, but later the remote will suffice and often are all that is present. I can think only of ideas and actions that have been in consciousness before, but I can center my thought upon the movements involved in this previous experience, or I can think of the result of the actions, the adaptation or function thus consummated.

In thinking of the letter *O,* I can by focussing attention upon the organs of speech become quite conscious of the *feel* of my lips as they contract to speak the appropriate sound. In all probability, this is the process followed in learning to perform various acts and utter the correct sounds for articulate speech. Later, however, we do not delay to recall all of these movements but pass directly from the stimulus, the sight of the word or letter, to its pronunciation. With sufficient repetition of the given act and consequent ease and certainty of response, all that is needed is the *remote* idea and the action follows without the mediation of the *resident* or kinesthetic sensations coming to consciousness. James' conclusion here is as follows: "We may consequently set it down as certain that *whether or not there be anything else in the mind at the moment when we consciously will a certain*

[1] *Principles of Psychology,* Vol. II, p. 488.

act, a mental conception made up of memory images of these sensations, defining which special act it is, must be there." [3]

James argues also at length that in such movements there is no special fiat, no special act of innervation necessary, the presence of the idea is all the antecedent requisite for action. Into this argument we have no time to enter, but content ourselves with calling attention to the fact that by thus doing away with any special or separate act of volition, he puts more and more stress upon the mere presence of the idea in consciousness. He then leads quite logically, if not inevitably, to his doctrine of ideo-motor action. The question he here propounds is thus expressed. *"Is the bare idea of a movement's sensible effects its sufficient mental cue, (p. 498) or must there be an additional mental antecedent, in the shape of a fiat, decision, consent, volitional mandate, or other synonomous phenomenon of consciousness, before the movement can follow?"* [4]

Sometimes, we are told, other antecedents are necessary, as in deliberate action, but in many cases the idea alone is sufficient, in which case we have what is known as *ideo-motor action.* And, as will be shown a little later, it may be true that what we regard as voluntary action upon analysis resolves into the same mechanism of control. Such at least is James' theory. His summary of the well-known passage in which he illustrates the principle is as follows: *"We may lay it down for certain that every representation of a movement awakens in some degree the actual movements which is its object, and awakens it in a maximum degree whenever it is not kept from so doing by an antagonistic representation present simultaneously to the mind."* [5]

Up to this point there is little criticism to be made of the theory as outlined. Ideas, all ideas, it may be assumed

[3] *Ibid.*, p. 492. [4] *Ibid.*, p. 522. [5] *Ibid.*, p. 526.

retain something of the fundamental nature of the reflex arc, and thus embrace a motor component. Especially is this true of ideas of various actions and of objects that have been attained by such means. To think of skating, or a game of tennis, or golf, in moments of abstraction, that is, when no inhibiting ideas are present, is to initiate movements to lead to the result.

The next point made by James in the working out of his theory, namely, the act of choice or volition is essentially the *act of giving attention to one idea,* rather than another, is both true and false. If it means that we do give attention to the idea that eventually expresses itself in action, there is doubtless much to be said in favor of this position. But, on the other hand, if it is meant to imply that ideas are all alike in motive power and holding one before the mind is as effective as holding another, then we must dissent. As a general principle in voluntary acts or deliberate choice, it is true the ideas do precede action. Thoughts both of the desirability of having money, and of various means of securing it, alike precede the actions of the thief and of the honest business man. However, while there is this invariable sequence of ideas and of action in voluntary acts this is not equivalent to the thought that an idea in consciousness, any idea, supplies adequate motive power to lead to direct and well-directed action for its realization in the objective world. In this sense the principle of ideo-motor action as an adequate explanation of all deliberate as well as impulsive action is clearly and convincingly wrong. James, it is true, does recognize the urgent, impellent character of some ideas and the deadening inertia of others, as for example, in that eloquent passage from page 551ff. Wherein he fails is in seeing in this distinction the whole secret of the dynamic factor of ideas that are present in consciousness.

And there is profound truth also in what he says con-

cerning *attention* and its relation to conduct. To attend to an idea, to put it in the forefront of consciousness is to give that idea an opportunity to exert its full motor effect upon consciousness and upon the organism. But this is not equivalent to the assertion that the effect is due to the mere logical content of the idea. Holding as we do that every idea has its affective component, as well as its conceptual, this presence in consciousness may be also just the conditions under which this affective element will enter actively into the determination of the reaction. But the presence of the idea in consciousness is as basic as James makes it to be. It is a matter of attention, we agree, whether I shall be a saint or a sinner, a Galahad or a satyr, an honest man or a thief, an upholder or a breaker of the laws, a pillar of state or a pest. If I follow that excellent Scriptural injunction and think of those things that are true, and honest, and just, and pure, and lovely and of good report, letting my "mind dwell on scenes of beauty" as Plato words the same thought, there will follow with all the certainty of nature's law a rich development of the ethical virtues. Think virtuous thoughts and you will do virtuous deeds is as certain as any other truism.

The explanation, however, is not to be found in the mere presence of the idea in consciousness as James' theory holds, although the presence of the idea is in fact indispensable, as he contends. Emotions are not vaporous, ghostlike entities that come from nowhere, and are disconnected, unattached to the objects of human experience. They are rather a definite form of mental reaction to objects, situations, and in mature life, to ideas both concrete and abstract. And yet the logical content of the idea alone is not sufficient. The real motor factor, the potential it will possess is determined by the affective component that has become an integral part of its content. The presence of the idea in consciousness, therefore, is a

condition not a cause of the motor response to which it leads.

How, then, shall the facts that we have outlined in the first part of the chapter be interpreted? Why is it that in certain fields of action man finds little difficulty in being intelligent at least in principle and in purpose when in others he meets the strongest subjective opposition? Will the principle that we have just stated apply in these cases? I believe that it will. In regard to the application of science, for example, where knowledge appears at its best, and man actually seems to be a rational animal, it should be remembered that there is here a drive that is dominant and wholly favorable to progress. Applied science is but the application of knowledge to the satisfaction of human desires. Good health, better food, greater wealth, better light, less work, more leisure, better means of communication, and transportation, furnaces in houses, amusements, bath tubs, and a thousand other conveniences, are backed by common human desire and are to-day unopposed by any pronounced emotional objection. Fear, fear of offending the gods once tended to suppress human endeavor, but of this hardly a trace can be found in our Occidental, cultured man. Consequently, the inhibition having been removed, the mind is free to employ itself without restriction in inventing and perfecting improvements to satisfy those natural human desires. And this is the field to which science points with most pride in its achievements. But even so it is not knowledge uninfluenced by the affective consciousness. Rather it is knowledge freely employed to satisfy human desires, human needs, human ambition.

On the other hand, where strong emotions still remain, where man's likes and dislikes are pronounced, where his emotional consciousness is crystallized into permanent attitudes or ideals, where matters pertaining to his home, his country, his children, his religion are in question, there

"rationalization" begins and progress is hindered, if not blocked, in spite of arguments that to another are altogether convincing.

For all of this, James' theory offers no adequate recognition or explanation. He does admit most eloquently that some ideas are attractive, some repulsive, but the explanation for this he does not offer. He throws upon attention the burden of selection and of holding this idea or that before consciousness until its motor tendency has a chance to express itself through the motor organization of the body. It is just at this point where his theory needs to be supplemented that the theory that we suggest seems to be the addition demanded. Ideas gain motor potentiality through the affective component of experience. The motor impulsion of an idea lies, not in its bare conceptual content, but in the affective tone of the associations that thus gathers around it. The idea of killing a man is, as a concept, no more objectionable or unethical than the idea of killing a pig. The difficulty with Leopold and Loeb was that human life had ceased to be regarded as sacred. Either there had been failure to build up the proper affective response around this idea, or it had been lost. This affective component, like the conceptual, is derived from experience, and like it also, may be wholesome, logically justified, promotive of life's true values, or perverted, indecent, and immoral in the conduct to which it leads.

Is pure knowledge then in itself a sufficient guide to conduct? Can knowledge alone oppose and control desire? By no means, for like pure science it is insensible to human values. Knowledge suffused with feeling, however, must ever rank as one of the most potent, most wholesome of human incentives. It can thus claim the logical validity that comes with truth, and at the same time the impulsion that is the essence of an emotional reaction. While ideas and ends we say have both a cog-

nitive and an affective content, stress may be laid upon either, with a corresponding diminution of the other factor. What is demanded, if knowledge is to be more effective in determining conduct, is that to those ideas relating to conduct its affective component be more explicitly developed. And this as we shall see is a matter of education and training, and slow growth.

In bringing this chapter to a close we may set forth one or two conclusions that the above considerations have served to support. In the first place, neither knowledge nor emotion alone is an adequate guide to conduct. And so far as can be seen from present conditions there is no hope that this close partnership between knowledge and feeling can ever be dissolved. The tendency to regard these two factors of the conscious life disjunctively is a process of abstraction that falsifies the facts involved. While in certain activities either the one or the other, as the case may be, is stressed at the expense of the other, the matter is one of degree never of exclusion. The cognitive consciousness relates to that which is factual, existential, related in definite ways to other facts. Facts and facts alone, or what are at least regarded as facts, constitute the world, our habitat. Food, shelter, clothing, trees, clouds, winds, poisonous serpents and compounds, enemies, friends, possessions, and all the rest must be known to be reacted to.

This aspect of life is worthy of all the notice it receives. But this is not enough. No less important, so far as action is concerned, is our attitude toward such objects. Here considerations of worth are involved, values that range all the way from simple sensory pain and pleasure up level above level to the higher forms of logical and æsthetic reactions; and the feeling value thus excited bears directly, and is the only factor that bears immediately upon the reaction that we will make to the given object or situation. In a world of manifold objects and

situations and forces where not only welfare but even existence is directly involved, some practical, effective, direct method of determining the appropriate reaction is no less imperative than knowledge concerning them. What is needed is some impulsion to action, some drive, some dynamic that alone completes the fact of information and turns it into action. Such a drive we find in the affective consciousness in all its forms.

There is another distinction between the cognitive and the affective consciousness that may help us to understand their respective rôles in the economy of life and of conduct. The goal of the cognitive consciousness, while beginning with objects and qualities, leads on to what is universal and abstract. The real objective of modern science is not descriptive but explanation and explanation makes use of laws and principles. Even facts to be significant for science must exemplify the universal. Knowledge then in its higher forms tends to transcend the particular and the concrete and to focus attention upon invisible laws. Thus it transcends the here and now in the generalizations of pure science, as well as in the abstractions of philosophy. Not that the results of this analysis and conceptual thought are worthless. Only thus can the perceptual and the practical be correctly understood and effectively controlled. But in our zeal for such research, it is well also that we neglect not too much the world as the unsophisticated individual sees it.

It is to keep man thus in touch with this matter-of-fact world of objects that the affective consciousness finds one of its most distinctive functions. The affective consciousness relates primarily to what is specific, particular and concrete. It is some particular evil that I dread, some specific insult that has aroused my anger. It is this object that excites my fear, another one that awakens my desire. And what is true with these more dynamic emotions is true even in the spheres of the ethical, the religious, and

the æsthetic. The truth in art to be art must assume some concrete form. Emotion, therefore, has to do with the concrete objective world and in this respect is more immediately practical and dynamic than knowledge. Knowledge is best when impersonal, affection in all its forms is always personal. "I want what I want when I want it," ran the words of a popular song some years ago. And it was popular because it expressed so accurately this aspect of the affective life.

The affective life keeps us in touch with the world of specific objects, with immediate needs and conditions though knowledge be engrossed with the remote and the abstract. Without the universal implied in knowledge, experience and laws and generalization would count for nothing. Knowledge with its analysis and foresight is excellent to point out the way. But we live only in the immediate present. Without the particular, without the proper reaction here and now, the future is denied to us. It is of the utmost importance, therefore, that the world of objects now present should have precedence over the world of to-morrow. And this it receives not through knowledge and understanding but through the affective consciousness. It is the present injury that causes pain, the present condition of the body that produces hunger, the present loss that causes keenest sorrow. This is not to discount intelligence or foresight, but only to show that they alone are not sufficient. Without intelligence there could be no effective foresight, no unity, no adequate preparations for contingencies, no coherence in action, and experience would resolve itself, as indeed it does where feeling is sole guide, into a succession of independent episodes.

Without the latter, indifference, inertia, inanition were inevitable. Or, did life succeed in maintaining itself the need for feeling is in no way obviated. Great learning and wisdom are synonomous only in an ideal way. Here

is where the universality of knowledge and the particularity of the emotion come often into open conflict. Wisdom says "Follow my council, pay the homage of obedience to the laws that I have given you." The emotion on the other hand retorts, "It is not a theory but an actual situation that confronts you. Act in the light of these immediate facts." While it would hardly be true to say that intelligence leads only to the one end, the highest good, it is true that even this apart from the spur of emotion would have little appeal to man. Energy that is undirected, uncontrolled, action that is purposeless, that ignores to-morrow for the lesser goods of to-day, striving that knows not where to go or how to get there, is imbecility at its worst. But an intellect that knows the best and yet does not strive to attain it, knowledge that foresees good and evil and yet merely drifts thereto, the mind that sees the beautiful and Eden in prospect, and yet is unmoved to effort is in no way superior to the other in this present world.

Man needs the steadying influence of foresight and farsight which intelligence alone can give; but he needs no less the energy, the drive, the undying determination to attain, that the affective consciousness alone supplies. How to get this drive behind the objects and ends that intelligence is seeing with ever clearer vision is the great problem of human control.

REFERENCES

Dewey. *Human Nature and Conduct,* Part III.
Dickinson. *Economic Motives,* Chapter XII, XIII.
Robinson. *The Mind in the Making,* Chapters II, III, IV, V, VI.
Edman. *Human Traits,* Chapter III.
McDougall. *Social Psychology,* Chapters VII, VIII, IX.
Perrin. "The Psychology of Motivation," *Psychological Review,* Vol. 30, No. 3.
James. *Principles of Psychology,* Vol. II, Chapter XXVI.

PROBLEMS FOR FURTHER STUDY

1. What were the reasons for the intellectualistic character of the older psychology?
2. How far and in what way did the theory of evolution serve to change this intellectualistic bias?
3. Formulate a brief emphasizing the determining value of knowledge. Of the emotions.
4. What are some expressions of the intellectualistic point of view (a) in education, (b) in religion (c) in social theory?
5. Why is it more difficult to get agreement concerning religion, social reforms, literature, or art than it is on scientific subjects?
6. How far and why is it a hopeless undertaking "to convince a man against his will"?
7. Formulate an argument to show that biologically knowledge and feeling serve the same purpose.

CHAPTER III

HABIT

TEACHERS as a rule are not averse to drawing a moral now and then whether their subject be biology or ethics; but rarely has it been given to a man of this profession to write a chapter that "has been preached from a thousand pulpits." Such a teacher, however, was William James and it was his chapter on "Habit" that won for him this rare distinction. The fact of habit and its importance for moral training is no new theme. "Train up a child in the way he should go and when he is old he will not depart from it" is a quotation that antidates all formal study of psychology. James, however, made the subject peculiarly his own by establishing the principle of habit in the realm of physics, so that its benefits or its handicaps are guaranteed with all the sanction and inviolability of physical law, by enlivening the theme with keen and powerful logic and with the literary grace, not of a writer of science, but of entrancing fiction. The directness of his discussion, the power of his argument, the touch of originality, even when he quotes from others, the keenness of his insight, the freshness of his treatment, all conspire to make us feel that he is here laying bare a basic principle of human nature. And so indeed he is. In this principle of habituation we may well agree with Royce that we have one of the fundamental principles of all reality, whether physical or mental.

It may, therefore, seem presumptuous, as it certainly is hazardous, for another to undertake the discussion of

a theme that has thus become a commonplace, and to face the comparison with a chapter that has become a classic. There are several reasons, however, why this must be done. In the first place we are attempting to enumerate and to emphasize the *motives* that as a matter of fact do actuate human conduct. And, believing as we do, that habit plays an active part in this direction, it were a greater fault than the one mentioned to be deterred because what we may have to say will necessarily suffer should a comparison be made. Furthermore, our point of view is different from that of James and what he says does not specifically stress the point we wish to emphasize. We would have the reader consider habit not only as a great principle of human nature, but as a source of affective reactions that actually directs the energies of men.

Furthermore, there is in current psychological discussion such stress being laid upon habit that it has assumed greater proportions than even James suspected when his chapter was written. With instinct under such a barrage of criticism, and psychology becoming so largely physiological in its explanatory principles, the subject of habit or modification through exercise is important as never before. The ground that instinct loses in this war of ideas, habit gains. So pronounced is this kind of thought to-day, so implicitly and completely do certain schools depend upon it as a basic principle of explanation, that we seem almost back again to the position of Locke, and his theory of experience as the only guide, the only principle of explanation in human behavior. But wherever the median point between what is innate and what is fixed through experience may prove to be, the principle of habituation is a valid and a vital one and worthy of reëxamination in any discussion of the inner factors that are operating to make man what he is. Whether or not Habit is all, it is much, and serves as a guiding principle

far more widely and more effectively than was suspected a few decades ago.

The essential facts underlying habit formation can be briefly stated, but this is at present about all that can be done. The explanation, involving as it does the nature of the nervous impulse, and the changed resistance of the synapse, two factors at present but poorly understood, must await further research or more explicit theory than is now available. But the fact itself is as simple as its explanation is involved, as direct and certain as any fact of experience can be. Any given response to a stimulus predisposes the organism, upon a recurrence of the stimulus, to react in the same way, and each repetition of the act serves to strengthen the tendency toward this particular form of response. What was at first contingent, if repeated often enough becomes by degrees a tendency more and more pronounced until it approaches the uniformity and invariability of mechanical action. This tendency to habit formation by the lowered resistance in the synapses involved in the nervous discharge is one of the primary laws of the organism, and in current psychological discussion has become in fact the very cornerstone of explanation of human behavior. All are agreed that this is a property of the nervous system, and is as universal and inevitable as is nervous control. But as yet the explanation can be only schematically outlined, though it can be rather safely asserted that the problem can be localized in the synaptic connection between the neurones and that synaptic resistance is decreased with *use*. In fact, the whole nervous system, lower reflex centers and higher centers without distinction, is regarded as a complex of arcs, where the final pathway is determined by the varying resistances in the numerous synaptic connections. While there are various factors that influence this resistance, such as fatigue, drugs, sleep, and attention, this factor of *use* is by no means the least, and although

it is one of the chief sources of error in all explanation to overwork some one principle, there is always the possibility of not appreciating fully the various experiences to which the principle may apply. Thus far it is a fair statement to say that the advocates of the habit hypothesis have been more effective in criticizing the other hypothesis than they have in substantiating their own. This applies more specifically to the behaviorists so called. But the field is still wide open and important truth and consequences lie in the principle that James did so much to popularize and emphasize.

Dewey in his *Human Nature and Conduct* makes habit fundamental in the lives of men, and as he so often does, touches the subject with a fresh and vital insight. He writes:

> It is a significant fact that in order to appreciate the peculiar place of habit in activity we have to betake ourselves to bad habits, foolish idling, gambling, addiction to liquor and drugs. When we think of such habits, the union of habit with desire and with propulsive power is forced upon us. When we think of habits in terms of walking, playing a musical instrument, typewriting, we are much given to thinking of habits as technical abilities existing apart from our likings, and as lacking in urgent impulsion. We think of them as passive tools waiting to be called into action from without. A bad habit suggests an inherent tendency to action and also a hold, command over us. It makes us do things we are ashamed of, things we tell ourselves we prefer not to do. It overrides our formal resolutions, our conscious decisions. When we are honest with ourselves we acknowledge that a habit has this power because it is so intimately a part of ourselves. It has a hold upon us because we are the habit.
>
> Our self-love, our refusal to face facts, combined perhaps with a sense of a possible better although unrealized self, leads us to eject the habit from the thought of ourselves and to conceive it as an evil power which has somehow overcome us. We feed our conceit by recalling that the habit was not deliberately formed, we never intended to become idlers or gamblers or roués. And how can anything be deeply ourselves which developed accidentally, without set intention. These traits of a bad habit are

precisely the things which are most instructive about all habits and about ourselves. They teach us that all habits are affections, that all have projectile power, and that a predisposition formed by a number of specific acts is an immensely more intimate and fundamental part of ourselves than are vague, general conscious choices. All habits are demands for certain kinds of activity; and they constitute the self. In any intelligible sense of the word will, they *are* will. They form our effective desires and they furnish us with our working capacities. They rule our thoughts, determining which shall appear and be strong and which shall pass from light into obscurity.[1]

These words of Dewey written before the latest trenchant criticism of Bernard and others had appeared, may nevertheless stand as a typical example of the standpoint of much psychological opinion to-day. Into the controversial aspect of the question we shall not enter as the argument is too long to be outlined successfully in as brief a discussion as this must needs be. Suffice it to say that we are convinced that much of the criticism of McDougall's instinct theory has been effective and that habit bids fair to displace much that was then regarded as innate. But it is more the *method* by which habit molds the activities of men, than its claim to full possession of the field that we are interested in.

When we consider habit from the standpoint of its effects there are two aspects that stand out rather prominently and call for some specific discussion. Among the effects of habit as usually enumerated are the following: accuracy and ease of movement, the lessening of fatigue, less attention demanded, and a resulting binding of the individual to a certain type of reaction, and, in a broader way, to a certain mode of life. The underlying idea in all these, with the possible exception of lessened fatigue, is that habit is a process of mechanizing our reaction to the common situations of life, so that our response is prompt, effective, accurate, and easy, and only a mini-

[1] Dewey, *Human Nature and Conduct,* pp. 24-25.

mum of attention demanded. The advantages of such modification of the organism are obvious. If we can so mechanize the reactions to situations recurring daily, the result is pure gain. Thus is a foundation laid in the very heart of the nervous system for effective response to many factors in the complex environment of each human being. Thus do individuals grow weak or strong, gentlemanly or boorish, firm or yielding, leaders or followers, indolent or industrious, saving or extravagant, dissipated or distinguished.

Upon the social aspect of the subject nothing finer has been written than these words of Professor James:

> Habit is thus the enormous fly-wheel of society, its most precious conserving agent: it alone is what keeps us all within the bounds of ordinance, and saves the children of fortune from the envious uprisings of the poor. It alone prevents the hardest and most repulsive walks of life from being deserted by those brought up to tread therein. It keeps the fisherman and deck-hand at sea through the winter; it holds the miner in his darkness, and nails the countryman to his log-cabin and his lonely farm all the months of snow; it protects us from invasion by the natives of the desert and the frozen zone; it dooms us all to fight out the battle of life upon the lines of our nurture or our early choice, and to make the best of a pursuit that disagrees, because there is no other for which we are fitted, and it is too late to begin again. It keeps different social strata from mixing. Already at the age of twenty-five you see the professional mannerism settling down on the young commercial traveler, on the young doctor, on the young minister, on the young counsellor-at-law. You see the little lines of cleavage running through the character, the tricks of thought, the prejudices, the ways of the "shop," in a word, from which the man can by-and-by no more escape than his coat sleeve can suddenly fall into a new set of folds. On the whole, it is best he should not escape. It is well for the world that in most of us, by the age of thirty, the character has set like plaster, and will never soften again.[1]

And yet, in all this the dominant idea is not motive so much as bonds, not so much the creation of some incen-

[1] *Principles of Psychology*, Vol. I, p. 121.

tive to action as it is the idea of a rut from which we can turn only with the greatest difficulty. But even this we must admit is a patent and a potent fact. An interesting illustration may be cited from the industrial conflict so prominent these days. In all the industrial turmoil and discussion of to-day it is significant to note that there is little talk of industrial emigration, that is, emigration from one industry to another. The changes sought are amelioration of conditions *within* this or that particular field, higher wages, shorter hours, better sanitation and more congenial working conditions, shop representation and the like. There is apparently little mention, or little thought of leaving one trade and taking up another where these conditions already obtain. The reasons for this may be partly due to stern necessity that forbids such emigration, but it is also partly due to the habits that have adapted the workers to this vocation and make any other seem not only strange, but irksome and uncongenial.

The sailor in spite of hardships and danger will put out to sea, the miner will still descend where not only darkness and dampness are sure to be found, but where he will face the danger of explosion, entombment, suffocation, because even these perils are more easily borne than the evils of a new occupation, the irksomeness of unaccustomed activity, the strangeness of the untried. Habit it is that keeps the cold bleak shores of Labrador peopled when softer breezes and less biting cold could be found within easy reach of these hardy voyagers of the sea. Migration southward is not beyond the possibility of the Esquimos, but to make life in a new environment either easy or pleasant when once habit has laid its hand on the youth is a more difficult task than to endure the hardships and handicaps of their present habitat.

The Israelites murmuring against the hardships of the

wilderness, and wailing for the lost joys of their house of bondage is no exaggeration of the power of habit, nor of the pleasures of following the accustomed way. What is it but habit that gives to the inhabitant of each rocky island of the sea, of a garish city street, of each retired country farm, the charm and boon of Home?

The psychological foundation of "Home, Sweet Home," is nothing less or more than habit, the ease and naturalness and satisfaction and restfulness of living in the accustomed way. The sentiment that touches the heart in "Auld Lang Syne," is the emotional halo that oft-repeated actions so often leave. The water in the "Old Oaken Bucket" was not sweeter, purer, scientifically better than any other. It was the oft-repeated satisfaction of assuaging his thirst that created the halo. Live for some years, in the early habit-forming period, even in uncouthness, and we become *adapted* to it, our reactions come naturally to such an environment, and these alone for years it may be, can produce the home feeling. There is little reason to believe that the intensity of this love of habitat is in any way proportionate to the comforts and conveniences enjoyed. Home as home is as dear to the dweller in the hut, as in the palace. And why should it not be so? The routine of life, the daily round of activities, of meals, of work, of social pleasures, whether simple and naïve, or more complex and sophisticated by the same law became first familiar, then easy, then natural, then the best, and finally the only intelligent mode of life. For the Catholic, the Protestant service *is* inferior, and for the Protestant his own mode of worship *is* best. Not, however, because inherently either the one or the other is better or poorer, but because the members of these two religious persuasions have by habituation become adapted each to his own order of worship. And for each his own order of worship best meets the demands of such religious exercise.

In the last few paragraphs above we have passed from the conception of habit as a bond that restrains and coerces, to that of a principle that entices and holds us, if prisoners, at least as willing ones. In James's conception of habit as a pathway in the brain growing ever deeper and deeper this latter aspect does not get its proper emphasis. A rut may serve to guide, but in itself it furnishes no motive power. And it is this factor in which we are now interested primarily.

Among the effects of habit usually enumerated there are two only that we shall here discuss. We are not now interested in the binding results or in the fact that to mechanize our daily routine leaves the mind free to employ itself with the weightier matters of the intellectual life. The lessened fatigue and smooth running of the process, however, do have some bearing upon our problem, for it is possible that in these two facts there is the foundation for the preference with which some acts are regarded. Ease and accuracy of movement come with practice and may be regarded as one of the constant results of habit. It takes some time for the parts of an automobile even to become adjusted to each other, for the stiffness to wear away and for the friction to be reduced. And so it is when I undertake any new and complex form of muscular reaction. The resistance in the synapses must be reduced, the output of nervous energy must be regulated to a nicety, the timing is not less important than it is in the automobile. And *use* is the only method through which these results can become a constituent part of the nerve centers of control. But mere mechanical use of the parts of the organism is not the only factor involved in nervous control. Ease and accuracy may always result but they alone do not create the impulsion, the drive, that underlies some of our activities. So far as they go they would tend to reduce friction and facilitate the reaction, but neither man nor the lower

animals desire to engage in actions only that are easiest.

As a matter of fact there are habits that show all degrees of intensity in their impulsion both negatively and positively. Some acts are repeated at intervals more or less regular not because of any special desire or satisfaction in so doing, but because the exigencies of daily life demand just this particular form of reaction. We do not, for example, find any particular desire for the familiar process of lacing up our shoes or tying a necktie, however often the act has been repeated. Furthermore many of our daily acts are performed not because of any impulsion from habit, but because of a native reaction tendency that prompt us. Thus hunger and thirst are more directly the cause of our eating and drinking than is the habit based thereon.

At the lower extreme from the point of view of this impulsion, are some habits of work for example, that are notoriously wanting in any dynamic urge, however often the acts may have been repeated. Sawing wood, using pick and shovel, or that homely instrument of toil, the hoe, stoking a furnace, dishwashing, and the like generally fail to engender any desire for their repetition. The best distinction that can be suggested between play and work relates to the immediacy and directness of the affective component connected with the activity involved. Thus play may be defined as activity for its own sake, that is, action that gives a pleasurable component directly, while work is for the attainment of some ulterior end, that is, the satisfaction is to be found in the good secured not in the activity itself.

If the impulsion is due solely to the mechanical effects of practice on the nervous system then such differences should not appear, except in proportion to the exercise that the various reactions have had. But such are obviously not the facts in the matter. Many forms of activity

there are that have been practiced from childhood that are nevertheless regarded with dislike and aversion. Washing dishes, milking cows, hoeing corn or tobacco, do not possess a lure in proportion to the hours that have been given to these occupations On the other hand, baseball, golf, tennis, bridge and almost any game may soon develop an attraction out of proportion to the time devoted to such pursuits. And while it is true that even the most onerous activities do sometimes with the years develop something of this attraction, this result can be better explained on other grounds than upon the mere hours spent in the exercise. There is a rich vein of truth in Dewey's words: "The essence of habit is an acquired predisposition to *ways* or modes of response, not to particular acts except as, under special conditions, these express a way of behaving. Habit means special sensitiveness or accessibility to certain classes of stimuli, standing predilections and aversions, rather than bare recurrence of specific acts. It means will." And yet even here we do not find the ground for the fact that some habits are more effective as means of control than others.*

When we cast about for the source of the lure which some habits possess, we do find a partial basis in the mechanical effects of practice. But even here it is not exercise alone, but exercise as it affects the conscious factors involved. Besides the law of use there is also the "law of effect." Proficiency in any trade, sport or profession with the lessened fatigue that this implies, and especially with the sense of mastery that it engenders in the mind of the person involved, tends in this direction. Certainly it is natural enough to prefer work that is less fatiguing, and the ease and accuracy with which habitual acts are done, and the lessened attention required all reduce the irksomeness both physical and mental. Natural enough, we say, provided we are willing to

* *Human Nature and Conduct*, p. 42.

consider the unpleasantness of fatigue a real factor in the process. The mere mechanical effects of habit, therefore, we must conclude do not serve to explain the differentiation we find in habits in respect to their impellant influence. Reduction of resistance in the synapse facilitates the action but does not explain the appeal that some habits possess. Without the conscious factor present and actually operative in a selective way, the mechanical factor even loses its force and significance for the explanation that we seek. Long continued work in mine or factory, store or shop, trade or business, profession or vocation, does predispose one to remain in this particular field. But this is more than a case of reduction of resistance in the synapses, although it may well be that primarily. But understanding comes only as this fact is interpreted consciously. There is in the accustomed sphere of work a sense of familiarity, a feeling of mastery or of adequacy, so that the work is easier mentally if not physically. Another trade or calling implies the irksome process of learning, the humiliation of feeling oneself an amateur, the forbidding discomfort of new habits to be formed, and old ones to be discontinued and uprooted.

But we have not yet reached the heart of the problem. What has been said might serve to explain a preference for one activity over another but it does not explain why either is desired. In a condition where choice is possible, choose certainly the lesser of two evils. But why choose an evil at all? What we desire to know is why some activities like golf and gambling, hunting and fishing are regarded as positively good, while other activities not more onerous are regarded with distaste. Why do certain habits become "prepotent" ones? We may approach this problem by way of reference to a distinction that is usually regarded as an ethical one, but is in fact, as the quotation from Dewey implies, primarily a psychological one.

There is an opinion more or less widespread that bad habits are more easily formed than good ones. It was this opinion doubtless, accepted but not understood, that gave rise to the belief in the inherent sinfulness of human nature, or at least made this religious doctrine so readily acceptable. But whether this is due to an inherent perversity in human nature, or to the fact that the moral road is the high road, both narrow and steep, or because the way of reason is in process of supplanting inherent animal tendencies, we need not say. This much, however, can be safely asserted: If use and use alone is the explanation of all our reaction tendencies, good habits would be no greater problem than evil ones. The same repetition that fixes some immoral or unsocial act would just as easily, just as surely, establish an ethical one. Habits of promptness should be as readily formed as habits of procrastination, truth telling as lying habits, kindness as readily as habits of cruelty, habits of peace as readily as the habits of war, unselfishness as easily as selfishness. But such is far from being the case. Merely to state the matter is enough to refute it. The percentage of honest statements of the most unmitigated liar is probably well above fifty per cent, hence he should go on to the perfection of truthfulness. Wars are at the most but temporary infractions of peace, hence peace should become a fixed, established habit. Is it not true, therefore, that this theory of *use* while it is important and involved in every habit formed cannot bear the burden of the explanation demanded?

One of the greatest perils in psychological explanation to-day, because the facts to be explained are so diverse, is just this tendency to accept some explanation that accords with particular cases but does not cover all the facts involved. Why is it, then, we ask, that habits of selfish indulgence are more readily formed than habits of altruistic regard for others? Why is the sexual relationship so difficult to control? Why have dishonesty

and stealing been so prevalent through the ages? Why are play activities so much more attractive to the boy than work? Use or exercise alone will not explain it. What is omitted in this theory? What must be added to make it apply in all such cases?

Examples of a negative impulsion are just as numerous and as suggestive as these few just mentioned. They all must be answered by any theory that is adequate to face the facts and to explain them.

In truth, the explanation is neither something remote nor obscure, but is surprisingly simple and obvious. There is no need here for profound reflection or for some masterful ingenuity in uncovering some hidden principle of the inner life. The trouble is that the solution is so simple that its profundity has not been recognized.

The principle then is this: *Acts that have as a component part of themselves, or are accompanied by a pronounced pleasurable factor tend to develop an impulsion or drive toward their repetition. Acts that are neutral in this respect are neutral in the motive power they engender. Acts that are necessarily, or even indirectly accompanied with pain or unpleasantness create an aversion or a negative impulsion.*

In other words, it is our contention that the drives that accompany habits of various forms cannot be fully understood or explained apart from their conscious accompaniment. The affective tone of the consciousness involved in any act is here, as it is in all its manifestations, a selective factor that fixes and establishes, or inhibits the various activities by which it is engendered. This pleasurable accompaniment may be varied in its nature, sensuous, when simple sensuous or perceptual experiences are involved, emotional, when some vital and more remote issue is at stake, or highly intellectual and logical when the mind has developed to the point where such processes come to play an important rôle in adapta-

tion to a developing physical or spiritual environment. But without this affective component the basic fact of "drive" or impulsion in connection with habits cannot be understood or explained. Pain and pleasure, therefore, are determining factors in connection with habit as they are in all sentient experience. Here then we come face to face with the principle that expresses our fundamental point of view and which our whole discussion is designed to support and to justify. The affective consciousness is a selective principle from simple sensuous pain and pleasure even to the highest and most abstract expressions of man's intellectual life. This affective element involved in all behavior has been called the "law of effect." [4]

In thus making pain and pleasure the selective factors that determine what hold a given habit will have upon the individual, we are referring to a principle that is as wide as human experience and doubtless rules in the animal realm as far down as we can go in an understanding of animal reactions. The argument may seem stronger if put in reverse order. If pain and pleasure are selective principles in the animal realm, pain usually being an inhibiting factor, and pleasure a sustaining one, what is more natural or plausible than that this same principle should operate in the familiar fact of habit formation? To repeat an act that has been productive of pleasure and to avoid those that give pain is the first law of a sensitive being. And to repeat an act under the spur of the pleasure it has given is all that the formation of any habit implies. Thus when the thought of some habitual act comes to mind as, for example, a game of golf, the fused affective elements that have been present in former experiences, the sensuous beauty of the course itself, the open fields and sky, the good fellowship enjoyed, the freedom for the time being from business cares and worries,

[4] *Vid.* Gates, *Elementary Psychology,* pp. 300ff., Thorndike, *Education Psychology,* Vol. 1, Chapter IX.

the sense of power when a good drive is made, the feeling of superiority from matches won, all these are factors that combine to produce an impulsion toward playing the game repeatedly. The attraction of ball for boys is of the same nature with a composite of pleasure to account for the appetite the game creates for itself. There is for instance, the joy of activity for its own sake, the rivalry of a match game, the pleasure for the batter when he makes a hit, steals a base, or scores a run; for the fielder there is the satisfaction of catching a fly, as a show of skill on his part and the satisfaction of putting the batter out. All of which combines to make a sand lot for the time almost the equivalent of a bit of Paradise.

Where the pleasurable factor is wanting in an activity the impulsion of the habit will be lacking. Thus the little chores of daily life and the action necessary for the routine of one's occupation fail to produce that impulsion found in such habits as have a pronounced pleasurable component. Tending a furnace, for example, hardly becomes an enthusiasm. It is a task that must be undertaken or shunted off on to other shoulders. However, the satisfying thought that you can do it better or more economically than anyone else may lead you to enlist for the service.

Following out the same principle, acts that have a component of discomfort, physical pain, or humiliation, however often repeated will never engender an active impulsion toward their repetition. Rather will the impulsion be aversion and the act will be performed only under compulsion or stern necessity.

This simple principle throws light also upon the question raised whether bad habits are more easily formed than good ones. Restated, the question now assumes this form: Do habits usually regarded as unethical possess a more direct and more pronounced pleasurable accompani-

ment than those of moral character? The answer is decidedly in the affirmative. Telling a lie, for example, is usually to avoid some unpleasant consequence impending, or to enlarge some pleasant one. And if successful, the satisfaction is as immediate as the danger was imminent, even though danger of discovery may lurk in the background. But telling the truth does not always bring such an immediate reward. In fact the immediate result of telling the truth may even be unpleasant consequences, embarrassment, for instance, or even punishment for the act involved. Lying is not only, therefore, the path of least resistance, it is as well the shortest cut to certain satisfaction and the only direct way to avoid some immediate discomfort. It is a "defense mechanism," and, if it works, is the easiest way of avoiding an unpleasantness. Lying, in such cases, is prudence, though nearsighted and socially more or less hazardous. What greater or more sufficient reason is needed to understand its prevalence?

Honesty, truthfulness, on the other hand, will become a habitual response only as satisfactions of a more ideal character are made to overbalance the immediate efforts of lying out of a situation. Call dishonesty dishonorable, beneath the dignity of a gentleman, cowardice, so that the opprobrium is positively and plainly felt and an inhibition is introduced into the mental life of the individual that will exert a positive influence toward truth telling and serve to inhibit, as unpleasantness always does, the indulgence in this particular method of avoiding pain or of securing some illegitimate satisfaction. The moral sanctions, and the religious ones as well are potent influences, or can be made so in the lives of our youth, provided only they are genuine ones in the lives of adults. So, also, stealing and dishonesty are easier methods of securing wealth than industry and onerous toil. And ease here means just this avoidance of the unpleasantness of

fatigue and monotonous routine that in youth are more pronounced than in later years. And not only is this the easy way, it is also in many cases the most efficient way of securing the desired end. A real first-class bank robbery may yield the financial return of years of labor. The material rewards, therefore, are immediate, easy, if not safe, munificent, though rarely lasting.

Bad habits, therefore, not infrequently are more easily formed than good ones, not because of any physical condition in the synaptic connections in the nerve centers involved, but because they are the shortest, most direct way to secure certain results anxiously desired. The explanation we seek cannot be found in the law of exercise, but is due rather to the law of effect. Physically it is just as easy to say "No" as it is to say "Yes," to walk away from temptation as it is to walk toward it. But mentally, the resistance of overcoming some present desire may be almost insuperable. This resistance, while probably synaptic, nevertheless manifests itself in consciousness as some form of feeling, emotion or desire.

The evil way, however, is the shortsighted way, the way that looks to immediate consequences and is not guided by intelligent foresight and reflective consideration of all the consequences that will ensue. The evil lies not in the pleasure itself, but rather in the train of consequences that must follow with all the inexorableness of physical law. The moral way is difficult and unattractive for the undisciplined will because it is inhibitive, enjoins caution, reflection, denial of present, for a future good, when desire is fixed upon the particular immediate satisfaction of the act in question.

In all of this the principle of habituation, of exercise is not lost nor rendered inoperative. Experience is necessary not only because it facilitates such definite reactions as are required, but because exercise gives an opportunity for this favorable affective component to arise and to

become associated with, or conditioned to the act involved. Only rarely is any act or situation so completely evil that all favorable factors are wanting. Furthermore, it should not be forgotten that in many of life's experiences repetition is as important in affective reaction as it is in motor. The principle of summation of pleasant reactions applies as truly in affection for the Old Oaken Bucket, as it does to the process of drawing and of drinking.

The other outstanding example of difference in ease of habit formation is found in the two classes of activity known respectively as play and work. Play habits are notoriously easy to establish, while habits of work usually require some sort of parental or social encouragement. Play is a lure that attracts both child and adult, while work is done often only under the stern call of necessity. In certain cases play may assume something of the character of work, as for example in the intensive training for athletic contests, and work, more fortunately, may assume the characteristics of play. The distinction, however, is a valid one and sharply enough defined to demand an explanation. Why should habits of play, from marbles to baseball, or from bridge to golf, be so easily established, while habits of work often no more onerous or fatiguing require such careful attention and even social compulsion. The explanation can scarcely be comprehended in the synaptic connections alone for there is no known reason why in itself swinging a baseball bat is to be preferred to swinging an ax, or why solving a problem in chess is inherently more pleasurable than solving a problem in mathematics or translating a sentence from some foreign language. A complete explanation of this fact of everyday experience requires something more than the principle of habituation if habituation is taken in a purely mechanical sense. The conscious effect as well as the neural process is directly involved and an adequate

explanation of the distinction must recognize the affective component as well as the physical one.

The particular virtue of play activity as contrasted with work is suggested in the definitions usually offered for these two classes of activities. The distinction suggested is essentially a psychological not a physical one. If play be defined as activity for its own sake, and work as activity for the sake of some ulterior end, the distinction is seen to rest ultimately upon the immediacy of the pleasurable component in the former. In play the satisfaction or pleasure results directly from the activity itself with all the immediacy and certainty with which satisfaction comes from eating when hungry or drinking when thirsty. The pleasure is practically an integral part of the activity itself. It is for this reason that we speak of "playing" the piano or the violin, not of "working" them. And yet the distinction we have suggested is a basic one and valid in countless instances. The more remote the end to be attained and the more indirect the satisfaction to be gained thereby, the more the activity is apt to be regarded as work and the more difficult it is to attack it in the spirit of play. The affective reward of play, on the other hand is so direct, so immediate and so intimately connected with the activity itself that there is a potent, positive drive toward such forms of reaction. Habits of play, therefore, are easily formed and have an urgency, a drive seldom equaled by work in early stages of development.

Play as we have discovered in recent years finds the roots for this satisfaction in underlying motives, drives, instincts, or prepotent tendencies as they have been called. In other words we must go back of the activity itself to something in the organism to understand the affective effect that some activities possess and others lack. Rivalry, for example, is an invariable factor in all competitive games and most games are competitive. To

play means usually, playing to win, to excel, to register your superiority in this or that particular form of activity. And the satisfaction comes because there is a mental set for the time being toward just this particular objective. Thus practically every inherent motive such as sex, self assertion, fear, escape, is the basis for play reactions that bring with their satisfaction a pleasurable response strong enough and real enough to motivate an ever-increasing number of activities. And the immediacy of the pleasurable factor in such reactions serves to give them a potency that creates a marked preference for action in which this affective reaction is found.

The pleasurable component in work, on the other hand, is found not in the activity itself but in certain ulterior ends that are thus subserved or attained. I do not hoe potatoes, for example, for the mere pleasure of hoeing, but for the crop I shall harvest at the end of the season, or for the cash returns that I shall receive when the crop is sold. Meanwhile the hoeing is an onerous necessity, undertaken without enthusiasm and continued long after fatigue has taken away whatever pleasure there was in the mere physical activity. In most work while the rewards are more substantial than in play, and are designed to meet some urgent necessities of our existence, this fact does not change the psychological appeal for immediate pleasure, nor turn stern necessity into the lure of the siren call for immediate satisfaction. Play therefore does have an advantage so far as the affective return is concerned and this is sufficient to account for the natural preference that it has in the mind of the average individual.

That work can, under certain conditions, take on something of the enthusiasm of play and even become more engrossing than play itself is a fact fortunately not infrequently found. That this is the condition for the most effective, the most satisfying work is just as obviously

true. The presence of a pronounced pleasurable component in any activity, we know to-day, so modifies the metabolism of the body that greater energy is available, fatigue is lessened, and the directing factor of mental oversight or interest is above par. But in order to find the same satisfaction in remote ends that are found in immediate ones requires a long process of conditioning and an activity of the imagination that comes ordinarily only with years of training and of experience.

Play therefore, we see, has the same psychological advantage that we found inherent in acts usually regarded as immoral, or unethical. They both receive an advantage by the fact that they yield quick returns in pleasures enjoyed or discomforts avoided. And one of the first laws of the affective life is that an immediate pleasure is better, that is, more impellant, than a remote one.

Habit therefore, we conclude, though a principle as broad as life itself and meriting all the emphasis accorded it in current psychological discussion, is not capable single-handed, that is, as a bare physiological principle, of bearing the burden of all psychological explanation. It has the inherent weakness of any exclusively physiological explanation, namely, that of overlooking a factor that is really the Hamlet in the drama of life. Man is more than a physiological organism and that more plays its part even in the formation of those habits that Dewey says "are the self." With the law of "effect" taken into consideration, and "effect" interpreted in times of affective reaction, most, if not all, of the facts of habituation can be satisfactorily interpreted.

REFERENCES

James. *Principles of Psychology,* Vol. I, Chapter IV.
Dewey. *Human Nature and Conduct,* Parts I, II.
Allport. *Social Psychology,* Chapter III.
Edman. *Human Traits,* Chapter II.
Martin. *Psychology,* Lecture VI.

Bernard. *Instinct,* Chapter V.
Watson. *Behaviorism,* Chapters V, VI, IX.
Watson. *Psychology from the Standpoint of a Behaviorist,* Chapter VIII.

PROBLEMS FOR FURTHER STUDY

1. How far is Allport's account in his *Social Psychology* of the way in which habits develop from "prepotent reflexes" satisfactory?
2. Can this theory be applied equally well to the lower animals? Support your conclusion.
3. Are there valid grounds for distinguishing between man and the lower animals in regard to the presence or absence of instincts?
4. What are the advantages and disadvantages of saying that there is *instinct* in man but no instincts?
5. What are the weak and the strong points in Allport's criticism of the instinct theory?
6. How without the affective component involved would the physiologist explain the difference in ease with which various habits are formed?
7. What is the bearing of the current conception of habit upon the relative influence of heredity and practice in determining conduct?

CHAPTER IV

PAIN

WHETHER pain should be classed as a sensation comparable to odor, taste, touch, and the like or as an affective phenomenon is open to some question although the weight of opinion seems to be in favor of regarding it as belonging to the former category. It is, for example, a common practice to regard it as one of the four primary dermal sensations classifying it with touch or pressure, warmth and cold. It may help to give it its proper classification to notice both its psychological and its physiological attributes.

Introspectively considered there are two general classes of mental response to which the term pain is usually applied, corresponding to certain well-defined physiological conditions. There is first, the sharp, biting, shall we say, sensation, resulting from the stimulation of certain specific receptors found generously distributed over the periphery of the body and in some other localities, the so-called pain nerves. The mental response to the stimulation of such receptors save for the local sign factor, is essentially the same, whatever their location and however they may be stimulated. Like any other sensation to be recognized and its attributes understood it must be experienced. It is essentially the response secured by the prick of a needle or by a drop of hot water upon the surface of the body. I have often been interested to note how all but indistinguishable is the resulting sensation whether the stimulus be one or the other of the two stimuli named. Such sensations can be called forth from

any portion of the body when such receptors are found and by any form of stimulation that will excite them.

The other typical form of pain is a dull ache, more or less severe, but generally more voluminous in character than the other. This type is usually deep-seated coming from the interior of the muscles or sometimes from the viscera. It is generally also longer continued than the other due doubtless to the fact that the conditions that produce the stimulation are not usually so readily obviated as are the stimuli that affect the pain nerves of the periphery. From a hot object touching the surface of the body I can move myself away or remove it, but indigestible substances in the stomach go with me when I move. And so the inflammation of a boil and the congestion from a sprain or of a muscle thoroughly fatigued demand time for their healing.

This distinction introspectively apprehended is doubtless due to certain physiological differences, although just what these differences are it is difficult to say with certainty. While physiologists are not fully agreed whether pain has its special receptors or whether any sensory nerve under certain conditions can give the characteristic pain response, it is scarcely time to be too dogmatic as to the physiological basis for such mental responses as we are considering. There does however seem good evidence for regarding the cutaneous pain sensations as arising from the free nerve endings that are found so generally distributed in the dermis and in certain other localities where pain is easily excited. The argument for special receptors for pain is found in the fact that they are present not only in the dermis together with other endings in which pain might conceivably arise, but in the cornea of the eye, the dentine of the teeth and on the tympanum of the ear where no other sensations arise. Be this as it may, susceptibility to pain is found in different degrees in different parts of the body and is in gen-

eral more acute in the periphery than in the deeper structure. Thus Herrick writes:

> The superficial parts of the body which are more directly exposed to traumatic injury are, in general, more sensitive to pain than are the deeper parts, and painful stimuli here can be more accurately localized. In some parts, like the conjunctiva of the eye ball, where very slight irritation may seriously interfere with the function, very gentle stimulation gives rise to acute pain, and no other sensory quality may be present.
>
> Surgeons find that the brain membranes are sensitive to mechanical injury, especially to stretching and pulling. The brain substance itself, however, is quite insensitive to pain from either mechanical or chemical stimulation. The deeper viscera of the thorax and abdomen are insensitive to pinching, cutting with a sharp instrument, or other mechanical, chemical or thermal stimuli though they are sensitive to pain arising from internal disorders, as in colic. The visceral pains are of a very peculiar sort, and are probably in most cases due to muscular tensions.[1]

From this limited number of facts it would probably be a hasty generalization to conclude that pain of the first sort is due to the stimulation of these special pain receptors, the free nerve endings that are found so abundantly in the skin, and pain of the second type results from excessive stimulation of other sensory nerves, the kinesthetic, for example, as in an aching muscle. And yet something of this sort is strongly suggested by the facts cited. If it is true that every nerve however excited gives its own characteristic response, and that there are recognizable differences between pain from the surface of the body and that from the deeper-seated parts, the conclusion that they arise from different nerve endings would seem to be justified. The argument awaits demonstration of the fact that there are none of the special pain receptors present where pain of this second type is found. In the meantime it is well to stand by the facts and the introspective evidence for the distinction we have made

[1] *Introduction to Neurology*, p. 290.

is at hand repeatedly in the course of the average person's experience.

In contrast to the special senses which have some one adequate stimulus, the pain nerves have several forms of stimuli equally effective in exciting the sensory reaction. Air waves are the one adequate stimulus for which the ear as end organ is best adapted. Light waves are received and focussed and brought to bear upon the rods and cones by an end organ made to respond to this sort of stimulus and to no other with equal effectiveness. But the pain nerves in the skin respond equally well to excessive heat, cold, traumatic injury, extreme pressure, to chemical and to electrical stimulation. Furthermore the conscious response from all this variety of stimulation is more uniform, less differentiated than are the sensations of color or sound for instance. The doctrine of the "specific energy" of nerve endings finds here a striking illustration.

As we consider this rather extended list of stimuli that are effective in calling forth the pain response, we do notice in the midst of this diversity, a uniformity not only in the mental responses but in the physiological effect. They are all capable, if excessive or too long continued, of doing injury to the tissue directly involved and thus to the organism as a whole. These stimuli are in general harmful and Sherrington proposes for them the descriptive term *nocuous*. And yet exceptions are not difficult to find. Iodine, for example, on a traumatic injury is painful but is not injurious to the tissue and certainly not to the organism. And yet if some general statement is demanded it would have to be that painful stimuli are harmful. Such exceptions as occur we can regard as exceptions. The organism is surrounded by objects and forces that are capable of doing bodily injury to its physical well being and pain is the conscious state that calls attention to their presence and operation. Thus there is

found in the basic physical facts underlying this form of mental experience the best of reasons for regarding pain as a protective device and as such to be distinguished from other forms of sensation.

Turning to the deeper seated and less accurately localized pains of the viscera and the musculature we find a different set of stimuli from those effective for the pain receptors of the surface of the body. For the most part the stimuli that are effective in the latter case do not function at all. Hot and cold objects come first in contact with the skin and the response at the point of contact is sufficient to take care of the situation. Chemical stimuli rarely come in contact with the deep-seated nerves and the same is true of mechanical stimuli. Such nerves are excited, therefore, by a different set of stimuli and the pain response is more significant of an inner condition than of the presence of some particular form of harmful stimulus. Among the more common forms of stimuli for this type of painful response may be named, violent muscular contractions as in the griping pain of indigestion or cramp in the muscles of the leg, strain whether violent and sudden as in a sprained ankle, or long continued as in carrying a heavy pail for some time without rest, and certain abnormal conditions in the tissue itself as in inflammation with a congestion of blood that produces pressure on the nerves. In all such cases as in those where nocuous stimuli are involved, the pain is indicative of certain conditions demanding relief. Of the two forms of pain, there are pronounced differences in their complexity and in the ease with which the situation can be met. Mentality above that of an idiot is sufficient to deal with many nocuous stimuli, but the mentality of genius and all the learning of the ages is still baffled in seeking for an understanding of the cause of cancer and an effective means of avoiding and of curing it. It is of the inner functional conditions productive of pain and

disease where medicine faces its most difficult problems.

The most obvious generalization suggested by our review of the physiological facts underlying the pain reaction is that pain is indicative of an unwholesome condition, sometimes as regarding the objects that excite the mental response, as in case of the pain receptors in the surface of the body, sometimes as regarding an abnormal condition in the tissues of the body. Pain is thus a danger signal, a signal that demands some immediate and protective response, whether that response be the action of certain voluntary muscles as in withdrawal, or some changed mode of diet, or of life, or even change of habitat in certain diseases. There is no need to overemphasize the exceptions that may be easily found to this rule, as, for example, the fact that antiseptics when applied to wounds may give rise to pain. The receptors of the body did not evolve under laboratory conditions but in relation to the crass facts of the physical world. And as our enumeration has shown, the stimuli or the conditions that give rise to pain are usually such as to produce harmful consequences on the bodily organism. Exceptions to this rule are far more numerous and impressive in connection with pleasantness and unpleasantness where the matter will be considered more in detail. In the meantime we shall accept this biological principle of adjustment as fundamental in our interpretation of pain and its significance to the organism.

Pain, provided that consciousness of any sort has an influence in determining action, is well fitted to serve as a guide to conduct. Pain is a language which every sentient being understands and responds to. It is an incentive too urgent to be neglected, too insistent to be disregarded. Furthermore, it does not like knowledge wait upon experience, but follows directly upon the excitation of the appropriate nerve endings. While there is no dem-

onstrative proof that the lower animals are subject to pain the analogy both structurally and functionally is so close that it is excessive caution to urge this uncertainty as reason for not accepting the principle as valid for the lower animals as well as for the higher. The goad for the ox, and the whip and spur for the horse are effective means of exciting to greater activity and all the positive evidence that we have is in favor of accepting pain as a result of such stimulation. Look where we will we do not find a single species that does not, to the best of its ability, avoid stimuli that we have reason to believe are pain-producing. Animals do not walk into the fire or repeat from preference actions that are adapted to excite painful sensations. Pain, therefore, may be regarded as one of the great stop signals that nature has given to the animal world to inhibit action that leads thereto, and to initiate defensive responses when the sensation is long continued.

The points of difference between pain and other sensations are important as we seek for the psychological and biological significance of this form of mental response. Most of the other sensations are regarded as objective in a sense that pain is not. That is to say, the attributes apprehended through the special senses are regarded as inherent in the object. Thus the tree is large, is dead, or green; sugar is sweet, vinegar is sour, and even in the sensation of contact touch and temperature the distinction holds: the table is rough or smooth, the ice is cold, the water is warm or hot. In all such cases we objectify the sensation as it were and regard the sensation as revealing some attribute belonging not to the sensation but to the object. This fact has been at the foundation of interminable discussions in philosophy and so far as we can see, will continue to be so. Neither realism or idealism will do away with the basic contradiction between the facts of physics and our mental experience, or more simply, between the stimulus and the resulting

sensations. But be this as it may, there is a difference in this regard between the other sensations and that of pain.

The pin we say is bright, or sharp, or straight, but it is not pain. It may be regarded as the *cause* of pain, but we do not regard it in the same way as the cause of straightness or brightness. Whether the distinction is justified or not is not our present problem and is not usually regarded as a true psychological problem. All that we wish to do now is to call attention to the distinction and thus to justify the conclusion that pain is designed to serve a different biological function from the data furnished by the other senses.

Furthermore the fact that there are several effective stimuli for pain precludes the possibility of pain itself giving accurate information as to the conditions in the objective world. If pain excited by heat is, as pain, indistinguishable from pain excited by some acid or mechanical injury, we must look elsewhere for data concerning the cause of the pain. We can only conclude that the function of pain is something different from the other sensations that give us real or reputed information concerning the objects and attributes of the objective world. As the stimuli that excite pain are generally nocuous and do not give further information as to the physical attribute of the objects involved, it is reasonable to assume that pain as a mental response has a function closely connected to the conditions that give rise to the mental reaction. In other words, pain is a mental reaction effective and insistent that serves the important function of biological adjustment, calling attention to conditions that should be dealt with promptly, energetically, and with all the bodily and mental resources needed to relieve the situation. Pain as a mental response has a prepotency, an insistency comparable, so far as results are concerned, to the prepotency that belong to certain reflexes and habits. It is not designed to give concrete information

but to secure immediate protective reaction. Through conditioning any sensation or perception may acquire this adaptive significance but pain possesses it inherently and insistently.

Cannon in his original and informing text *Bodily Changes in Pain, Hunger, Fear and Rage* has called attention to some of the organic reactions to pain whereby it better serves the biological function for which it seems designed. The substance of his conclusion may be summed up in the statement that the response to pain is not confined to some reflex reaction to a painful stimulus such as the flexion of an arm or leg or even to widely extended convulsive movements where the pain is acute and long continued, but besides all of these there are certain definite organic changes and coördinations that enable the organism as a whole to deal more effectively with the situation. In this respect pain is more allied to certain strong emotional reactions than it is to the simple reflex. Thus severe pain is to-day known to have a very direct effect on appetite, in affecting gastric digestion, and in producing that visceral disturbance known as nausea and even vomiting. Anyone who has had to undergo some extended and painful probing can probably verify this fact. And a "sick headache" gets its name from the visceral disturbance that is one of the usual manifestations of this disorder. Another physiological effect of pain is the pouring out of adrenin into the blood stream accompanied by the usual changes that follow from the presence of this active hormone, namely, modification of the distribution of the blood in the body, quicker coagulation of the blood, more glycogen from the supply depot in the liver, and effect upon the heartbeat and breathing. Thus does pain lead to provision in the bodily organism for meeting the usual exigencies under which it is commonly experienced. Strong muscular activity is often needed to escape from a pain-producing situation and the

resources of the body are thus put at the service of such an adaptive reaction. That these modifications are partly or even all reflex and can take place without the presence of the conscious factor seems to be established by the experiment of Cannon. He stimulated the sciatic nerve of a cat after anæsthesia, a form of stimulation that would, under normal conditions, produce evidence of pain, and found that the bodily effects indicative of adrenin in the blood were present nevertheless. But if the same reflex effects follow whether the animal is conscious or not we may well raise the question: Is pain or a conscious emotion a factor in the reaction in any way?

If the total effect were the same whether consciousness were present or removed, the conclusion would be justified that pain as a conscious state makes no difference in the result. But besides all of these reflex reactions, changes in heartbeat and in breathing, changes in digestion and distribution of the blood, more adrenin and glycogen in the blood, there is another phase of the reaction where the conscious factor makes a profound difference, namely, in the control of the voluntary activities of the body. It is scarcely too much to say that in a surgical operation the anæsthesia is as beneficial to the surgeon as it is to the patient. It prevents those voluntary movements on the part of the patient which in some delicate operations might easily lead to fatal results. The inertness and unresponsiveness of the patient, to say the least, give the operator a far better chance than he could have, did he depend entirely upon the volitional control of the subject.

Furthermore, as we come up the scale, pain serves as an active principle of conditioning, negative if you please, but effective nevertheless. Thus animals learn and learn quickly to avoid objects and situations that bring pain as well as to cultivate those that secure pleasure. Pain, therefore, is something more than a cause for a series of

reflexes although it is that to a surprising extent. It is also by virtue of its conscious attribute something to be avoided, something regarded as at enmity with human welfare, something to be opposed and overcome by the least harmful method that human intelligence can devise. If there are prepotent reflexes, prepotent habits, there are also prepotent mental states and pain clearly belongs to this class. As a conscious state it is insistent, imperative, tends to monopolize attention and thus impels to action as other mental experience usually fail to do.

REFERENCES

Cannon. *Bodily Changes in Pain, Hunger, Fear and Age. Vid.* Index under Pain.
Herrick. *Introduction to Neurology,* Chapter XVIII.
Stout. *Analytical Psychology,* Vol. II, Chapter XII.
Marshall. *Pain, Pleasure and Æsthetics,* Chapters I, IV, V.
Ladd and Woodworth. *Elements of Physiological Psychology. Vid.* Index under Pain.
Sully. *The Human Mind,* Vol. II, Chapter XIII.

PROBLEMS FOR FURTHER STUDY

1. Contrast pain with unpleasantness as states of consciousness.
2. Enumerate the arguments for regarding pain as a form of sensation.
3. In what respects are conscious reactions more effective than reflex? Show that these advantages apply in the case of response to a pain stimulus.
4. Enumerate the physiological effects of pain discussed by Cannon.
5. Compare and contrast the objectives in the consideration of pain from the biological, the physiological, and the psychological points of view.
6. Suggest experiments to test the relative values of pain and pleasure on the process of learning.

CHAPTER V

PLEASANTNESS AND UNPLEASANTNESS

No sensuous state of consciousness has as a conscious state a greater tang of reality than the acute, biting, urgent sensation coming from our pain nerves. Like other sensations it can be localized, has, the weight of evidence goes to show, its own receptors, and is usually regarded as one of the four skin sensations. As well deny the reality of light, or sound, or touch, or temperature, as of pain. As a sensation it, like other forms, is subject to modification through attention but even in this respect is more urgent, more insistent than most. It is not subject to the law of adaptation so readily as temperature or odor, for example. As was shown in the last chapter there are no subtleties or obscurities in regard to this sensation that are not common to sensation in general. Pain is pain, just as color is color, or sound is sound, and arises as do they from the stimulation of a definite set of receptors.

For pleasantness and unpleasantness the story is not so simple nor so definite. There are, it is generally admitted, no special receptors for these, and the relation of the stimulus to the organism as a whole is here involved as it is not in connection with the sensation of pain. Unpleasantness may be experienced in connection with any sensation as well as with many of the higher forms of mental reactions. Pleasantness and unpleasantness instead of being new forms of sensation, are more in the nature of an attribute of sensations. But even this char-

acterization is by no means accurate or exact. The odor of a rose is pleasant or agreeable and its connection with the particular odor so close that it seems almost an integral part of the sensuous experience. So with many of our sensations and perceptual experiences. But even here the connection is not unvarying and absolute. At the other extreme are many experiences that are dependent for their pleasantness or unpleasantness upon the mental set, or bodily condition, or present mental purpose of the individual. A tennis game is pleasant or unpleasant as we win or lose, play up to our best form or below it, have a strong desire to win or are indifferent, or appreciate the fine points of the game. Cricket for the average American is not equal to baseball, not because of the different physiological activities involved, but because of subjective conditions, and to the Englishman is superior for the same intangible reasons. Pain, therefore, is in a sense an absolute, at least as much so as any other sensation. Pleasantness and unpleasantness are relative, contingent, as pain is not.

For an understanding of man's affective life, including the emotions and the higher forms of æsthetic, ethical and logical sentiments, there is nothing more important than that the nature and conditions of this affective factor in man's sensuous experience should be understood. Here we find the affective element in its simplest form and if anywhere the physiological conditions and cause of pleasantness and unpleasantness can be discovered this would seem to be the point where the search should begin. For our whole study, therefore, this problem of the source and cause of simple sensuous pleasure and displeasure is profoundly important if not crucial. To solve the mystery of why some sensations are pleasant and others unpleasant would give us a starting point and perhaps a basis for understanding the emotional life, and for the highest forms of affective phenomena as well.

One of the first points to attract attention is the extensive list of sensations that have this affective component. Certain tastes, odors, colors, sounds, temperature sense, organic sensations are pleasantly toned, some are displeasing. Our sensory experience in all its manifold forms is, or may be, either pleasing or displeasing.

But this affective component is neither fixed in quantity nor in quality. It is a variable, but a variable the source of which has proved to be a most baffling problem.

The first point to be noted is that the affective quality is something distinct from the sensation, and yet most intimately bound up with it. Sensations remain much what they have always been, but the affective tone may dwindle or increase, or even change from one extreme of pleasure giving to that of producing the opposite effect. Coffee with sugar, for example, in all probability tastes alike to those who prefer it so, and to those who prefer it without. As productive of sensation it has the components of aroma, temperature, bitterness and sweetness. For some the sweetness is pleasant, for others unpleasant, but it is still sweetness in either case. The difference is probably not in the sensation itself, but in the affective quality which the sensation has for the individual. So olives probably taste the same to all; there is saltness and a kind of astringent bitterness. But some like this combination of sensation, some do not.[1]

Or, even if a more convincing illustration is desired, we may point to instances where the sensation remaining the same, the affective component changes from pleasantness to unpleasantness. Suppose, for example, that you are fond of vanilla ice-cream; I ask you to join me in this American indulgence. You accept and when it is finished, say sincerely, "That was fine. I enjoyed it." Then I, having a small sum for psychological experimen-

[1] While it is impossible to compare the sensation produced in two individuals, we assume that the likeness in the sense organs and in the stimulus produces a common result.

tation, suggest that you have another. You agree and enjoy that, too. Again I suggest another and you, having something of a sporting proclivity, agree. When we are finished I repeat my suggestion again and again. By and by, whatever your capacity may be, you refuse and say there is no longer any pleasure in it. And yet upon inquiry you admit that the day is still warm, the ice-cream still cold and sweet and that you can still detect something of the flavor of vanilla. But these sensations instead of giving pleasure now have become disagreeable. So common is this experience of the affective component diminishing or even changing from one to the other that we have not given the matter due consideration.

There is one fact that may be pointed to as of real significance for the understanding of the affective consciousness. Pleasantness and unpleasantness is a relationship not between some particular nerve center and its stimulation, but rather a relationhip between the stimulus or the object and the whole organism. The explanation is to be found, therefore, not in some as yet unidentified nerve ending and its sensory response, but rather in the relationship between the stimulus, or the object or situation and the organism considered in its entirety. The nervous system not only functions in parts, this particular stimulation producing this particular response, but there is in it also the principle of integration. When I dread sickness, for example, it is not for the particular effect it will have on eye or ear, muscle or glands, but something more that will affect me as an individual, as a totality. So when I act, I act as a person, as an entity, a unit, as an integrated totality of response. This principle of integration is as much a property of the nervous system as is the fact of individual reflexes. It is not so easily explained, so simple in its general outlines, and yet a fact to which any careful study of the nervous system leads. And it is to this aspect of the nervous system

and of the mental life that pleasantness and unpleasantness primarily refer.

When the organism is chilled, ice-cream is disagreeable, when hot agreeable. The sensations remain essentially the same but the affective response is determined by the condition of the body as a whole. Pleasantness and unpleasantness in their more general forms, therefore, are inclusive affairs, so far as the nervous system is concerned, more determined by general bodily conditions than by the sensory result of some particular stimulation. So food is pleasant when the bodily condition is that of hunger, water acceptable when it is needed, needed by the whole organism, not simply by the tongue and throat, where thirst is localized. Keep this thought well in mind and some of the perplexities in understanding these two forms of consciousness begin to resolve themselves. Let it be granted also that consciousness is a means of unification or integration of experience and we are not far from ample material for a consistent theory of the affective consciousness from its simpler forms up to the most involved.

From what has been said it would follow that our likes and dislikes, our pleasures and displeasures, are subject to, and dependent upon past experiences no less than upon present stimulation. For these, whether we interpret the matter physiologically or introspectively, go far to give color and meaning to the present stimulus. For example, let one eat some food, the contents of which he does not know, and the verdict simply on the basis of taste may be favorable. Then inform him of its contents, presumably some object toward which he has a strong gastronomic prejudice, and the pleasure may be changed to disgust. The fact that it was my own dog that buried his bone in my flower bed and not that of my disliked neighbor across the way makes a profound difference in the affective reaction.

The affective component in the case of simple sensuous experience seems causally determined by some specific attribute in the sensation itself, as for example, the bitterness of quinine or the sweetness of sugar, or the particular odor of a rose or of violets. But even so the bodily condition counts and counts heavily as may be seen when the normal bodily conditions are deranged by sickness.

In cases more involved, subjective experiences, so remote that they can be recalled only by the assistance of a trained psychoanalyst, play a very definite and often a controlling part. Between these two extremes the great body of man's affective experience may be found. Sometimes immediate sensuous factors play a major part, sometimes a minor. But in either case, the condition of the bodily organism as a whole, or the vast body of associated factors play such an important part that any attempt to find the sole grounds for the pleasantness or the unpleasantness in the character of the stimulus is doomed to failure. The affective component of consciousness, it would seem, can no more be explained without reference to the higher central factors than can any complex cognitive experience. For it is in these higher cortical centers that the integration of life's experiences is secured.

Pleasant tastes and odors can be enumerated and even described, but in such a list the affective element is by no means explained. However, it is a fact that might well be dwelt upon that we can thus localize the source of one of the principle forms of affective experience. Some sensory stimuli are inherently, and so consistently pleasant or unpleasant. Thus it is impossible for the normal person to convince himself that H_2S is pleasant or the odor of roses unpleasant. The affective tone is here fixed by the quality of the sensation itself. This would seem to be the nearest that we can come to an identifica-

tion of the source of the affective quality of a sensation. But like so many simple facts the explanation is not commensurately easy. The difficulty may be due to the fact that we are, as yet, entirely in the dark as to the relation between brain states and consciousness, and this is further complicated by our ignorance of the process by which favorable or unfavorable reactions are connected up with stimuli of a helpful or a harmful character.

There is another principle of nervous activity that demands consideration in the formation of a theory of the affective consciousness, namely, the facts relating to *satiety*. This is found in its clearest and most distinctive expression in connection with sensuous experiences now under discussion. This means that it is a very general, if not universal principle that various sorts of sensuous stimuli that are ordinarily pleasure-giving, if too long continued lose their hedonic tone and may become positively unpleasant. Muscular fatigue might well serve as an example, although the cases usually cited relate to taste or to odor more frequently than to any other sense. Whether the facts involved are sufficient to suggest a theory of pleasantness is doubtful but the implications should not be overlooked. Interpreted in terms of nervous activity, the facts would seem to be as follows. The stimulus say, for example, of sugar flavored with chocolate when taken into the mouth excites certain taste nerves and the sensation of sweetness results, together with the olfactory reactions that produce the given odor. This pleasantness is increased if the bodily condition known as hunger is now present. But continued stimulation of these nerves, however, fails to keep the pleasurable component up to its first degree of intensity, and when too prolonged may cause the affective tone to change from pleasantness to unpleasantness.

There is in these facts a suggestion that has led to one of the most common theories of pleasantness and

unpleasantness. There is, however, another implication that may well be brought out at this point. While there are certain instances when the pleasurable reaction seems to be dependent directly upon the specific character of the stimulus, the cases where this is strictly true are few. In the great majority of cases the pleasurable component is a resultant of many factors widely varied both as to their character and as to their place in the organism. If hunger conditions the affective reaction to some article of food, then the pleasantness is not due to the taste alone. And from those instances where the character of the stimulus seems most important in determining the affective reactions, up to instances where meaning, or highly refined intellectual processes play the major part there is a long unbroken series. Just how or why these modify the resulting reaction, in simple or even complex physiological terms, we are still unable to say. Let us see, therefore, if any of the hypotheses suggested will assist us.

One of the oldest theories to explain pleasure and displeasure is that stimuli that are wholesome and helpful are pleasant, and those that are harmful are unpleasant. This theory lacks not for numerous and forceful examples. Food, when hungry, or water when thirsty, and even specific forms of food for certain climates and seasons come at once to mind. The desire for exercise when too long sedentary, or for rest after continuous exertion will also serve to illustrate the theory. The difficulty, however, is that exceptions are also numerous and hardly less impressive. Sugar of lead is sweet to the taste, as are chloroform and glycerine, but are far from advantageous to the organism. Then there are numerous deadly substances, like carbon monoxide, that do not make their presence known to the senses at all. To these the principle obviously does not apply.

Furthermore, no small part of the training and educa-

tion of the child, and of the adult as well, is just to inhibit some of his pleasure-giving impulses. And many of the virtues of life, even of primitive life, must be enforced by social sanctions, which means that they are opposed to the inclinations of the individual. So long as these facts remain it is impossible to contend successfully for this principle as one that is universally applicable. Speaking biologically, this may mean that the organism is not perfectly adapted to its physical and social environment. The truth is that this principle is a biological principle not a physiological one, and at best serves merely to indicate what stimuli are pleasant, and unpleasant. Biological principles are valuable and full of interest and suggestion, but until they can tell us more than they do at present of the *method of adaptation* they will hardly serve to meet our present demand for an explanation.

The furtherance-hindrance theory likewise is both interesting and illuminating, but not in just the direction where we now are most in need of light. It asserts that whatever promotes a desired end brings pleasure, while anything that hinders the realization of such an end is displeasing. This theory has the virtue of being true in a countless number of cases both positively and negatively. Moreover, it also has the virtue of being applicable to situations in which there is no pronounced sensuous factor. In games and sports where there is nothing to choose sensuously between seeing a football propelled over a goal by one's own team or by an opponent, it introduces a distinction that makes all the affective difference in the world. Say what you will about exhibition of skill, or coolness, or fine judgment, emotionally it makes a profound difference whether this admirable action promotes or hinders your desired end.

Moreover, it is not in the final result only that pleasure or displeasure is found. Any marked progress toward that desired end, or perceptible obstacle in the way,

equally brings its component of pleasure or displeasure. A hit, or a run, in a baseball game may not win the game but it is a step in that direction and hence brings pleasure to the partisans of that team. The principle, however, while it lies at the very foundation of sports and games of all sorts, applies just as truly in the real aims and ends of life. To advance toward any desired end, professional, marital, industrial, selfish or unselfish, individual or social, egoistic or altruistic, material or spiritual provided only that it is desired, is pleasant. And to meet obstacles that stand in the way of such attainment is to be for the time being displeased.[2]

It is to be noted, however, that this principle does demand that these ends shall be *consciously* desired or willed. It fails, therefore, where the other theory was strongest, namely, in regard to our sensuous pleasures and displeasures. But it may be that the two theories are in reality more closely related than they at first sight seem to be.

We notice, as in the case above, that we have here not an explanation of why certain actions give pleasure so much as a classification of the activities that do in fact produce pleasure or displeasure. But such a principle nevertheless is suggestive. It marks the first step if not the final one toward a better understanding of the true function of the affective consciousness.

Again, it is not difficult to see that there is a close similarity between these two formulated theories. The second one demands that the end should be *consciously* entertained and desired while the end, in the first case,

[2] There is an interesting practical, or we may even say an ethical corollary that follows from this fact. The man who has many ends in view, many irons in the fire, thus increases both his opportunities for enjoyment, and for disappointment. To have strong desires is to be ready for keen enjoyment—and disappointment. To get rid of desire is to get rid of disappointments, but the pleasures of life go as well. In the face of such a fertile theme for discussion the only safe plan is to desist, which I do.

is the unconscious and more remote one of well-being, or "survival," or the "will to live." The first formula, therefore, is best fitted to those subconscious aims of human experience and to the lower organisms, while the second is adapted especially to the realm of ideas, conscious purposes and ends consciously foreseen and desired. They both illustrate, however, the selective principle in a living, sentient organism, a principle that reaches further and is more subtle and refined than anything yet found in the inorganic realm. They exemplify, also, the principle that in some way pleasure is promotive of causal activity, and unpleasantness is inhibitive. To advance toward a desired good is not only pleasant, but it is at the same time, whether by means of this pleasure or otherwise, a spur to further activity in the same direction. Biologically, this is to realize a wider, a better life; it is real progress in promoting the end that for the time being is the objective of action. And life itself consists of a number of simultaneous or successive goals of this individual and concrete character. The practical utility of pleasantness and unpleasantness is clear enough: it is the physiological or nervous basis for the distinction that is obscure.

It may be worth our while in this connection to mention some of the physiological theories proposed. Some of them are probably extreme and based upon the most meager evidence. Herrick enumerates some of them as follows: "It has been suggested that the flexor movements of the body are associated with pain, the extensor movements with pleasure; that constructive metabolism is pleasurable, destructive metabolism disagreeable; that heightened nervous discharge is pleasurable, and the reverse (some form of inhibition or of antagonistic contraction) is unpleasant. Some hold that pain and unpleasantness or disagreeableness are different in degree only, not in kind. Others regard pain as a true sensation,

but disagreeableness and pleasure (affective experience) as belonging to a different category which is nonsensory.[3]

Such are some of the possible theories proposed. Herrick states his own position in the following words:

> The simplest view seems to the writer to be that the normal activity of the body within physiological limits is intrinsically pleasurable, so far as it comes into consciousness at all. There is a simple joy of living for its own sake, and the more productive the life is, within well defined physiological limits of fatigue, good health, and diversified types of reaction, the greater the happiness. The expenditure of energy within these physiological limits is pleasurable *per se* except in so far as various psychological factors enter to disturb the simple natural physiological expression of bodily activity. Such disturbing factors are anxiety, want, rebellion against compulsory service, and unrelieved fatigue. The expenditure of intelligently directed nervous energy along lines of fruitful endeavor is probably the highest type of pleasure known to mankind.[4]

There are to such a theory of pleasure and displeasure certain advantages that should not be overlooked and can indeed scarcely be dispensed with in anything that accords with all the facts in the case. In thus making pleasantness a result of all forms of nervous activity under certain conditions and with certain limitations, there is the advantage that such an explanation would apply not only to the simpler sensuous reactions, but to the higher, more intellectual forms as well. Furthermore if there are no special receptors for pleasantness and unpleasantness, and if these affective attributes do accompany not only sensory activities where afferent receptors are directly involved, but the higher intellectual processes as well where the afferent factor is reduced to a minimum, and yet with no diminution of the affective component, it would seem that some theory is demanded that will provide for this affective element in that part

[3] *Introduction to Neurology*, p. 297.
[4] *Ibid.*, 297.

of the nervous system where nervous activity is present and where it plays for the time being even a major part. James's contention, or rather the implication of his theory of the emotions, that all affection finds its source in afferent reactions would seem to be out of harmony with the facts, for the more intellectual the reaction the less pronounced are such factors, and yet the satisfaction that results from such creative activity is, as Herrick says, "probably the highest type of pleasure known to mankind." Under the James-Lange hypothesis, the pleasure that comes from some logical victory over a difficulty must first reverberate through the bodily organism and then return to the sensory part of the brain over afferent nerves, an activity that serves no useful purpose, it will be recalled, unless perchance it makes possible the theory suggested.

While the theory here proposed is not identical with the furtherance-hindrance theory it does accord with many of the facts that were mentioned in support of the explanation. Also it accords well with the facts being stressed by the Gestalt or configuration psychologist, that any mental reaction implies a wide-spread cerebral response. The distinctively human element in man's behavior is not reactions to stimuli but the attainment of purposes, ends, and our reactions are organized and coördinated to such ends. And the affective component in all such reactions arises not in connection with this or that reaction but in relation to the attainment of the goal thus set. As Herrick in the discussion of his theory says:

> And it should be borne in mind that the normal activities of the body are all combined into adaptive systems, that is, they are directed toward the accomplishment of definite ends and not directed at random. Even in instinctive activities of the invariable or innate type, though there may be no consciousness of the end to be attained, the actions are not satisfying to the animal unless they follow in the predetermined adaptive sequence (p. 64).

The play of both men and other animals is likewise always correlated around some definite physiological motive. And it is even more conspicuously true that the intelligently directed activities are unsatisfying unless they attain, or at least approximate to, some particular end. Stated in other words, it is not activity which is pleasurable, so much as the accomplishment, or, in the case of delayed reactions, the hope of accomplishment.

The normal discharge, then, of definitely elaborated nervous circuits resulting in free unrestrained activity is pleasurable, in so far as the reaction comes into consciousness at all (of course a large proportion of such reactions are strictly reflex and have no conscious significance). Conversely, the impediment to such discharge, no matter what the occasion, results in a stasis in the nerve centers, the summation of stimuli and the development of a situation of unrelieved nervous tension which is unpleasant until the tension is relieved by the appropriate adaptive reaction. Such a stasis may be brought about by a conflict of two sensory impulses for the same final common path (see p. 69), by the dilemma occasioned by the necessity for discrimination in an association center between two or more final paths by fatigue, autointoxication or other physiological states which lower the efficiency of the control mechanism, and by a variety of other causes. The unrelieved summation of stimuli in the nerve centers, involving stasis, tension, and interference with free discharge of nervous energy, gives a feeling of unpleasantness which in turn (in the higher types of conscious reaction at least) serves as a stimulus to other associated nerve centers to participate in the reaction until finally the appropriate avenue for an adaptive response is opened and the situation is relieved. With the release of the tension and free discharge, the feeling tone changes to a distinctly pleasurable quality.[5]

I have quoted the above at some length because it is the solution proposed not by a psychologist but by a neurologist. Besides, the theory here formulated satisfies some of the major conditions of any satisfactory solution of the problem. It is capable of being applied to the simpler forms of sensuous pleasures as well as to the more complex intellectual activities. It is given, it will be noted, not in terms of the stimulus, but in terms of

[5] *Ibid.*, p. 298.

nervous reactions within the nervous system itself. And after all, this is not only where the conscious factor really is to be found, but it is where reactions of all sorts, whether random or coördinated, reflex or voluntary, chance or adaptive are initiated and controlled. The nearer that we can state our explanation in such terms therefore, the nearer we come to the psychological as well as to the physiological explanation desired. Let us see how it would apply in concrete cases.

In the case of pleasantness or unpleasantness connected with certain sensuous experiences such as the odor of roses, it would imply that such stimulation of the olfactory sense leads to a free running activity in the nervous system such as is not involved in the odor of H_2S for example. In either case, it should be recalled, the action is not confined to the sensory center in the brain but has a number of associated nerve pathways connected therewith. These, in the case of the odor of roses, are connected with the month of June, with the gardens of childhood, with memories of the past, with song, and love, with colors, an indefinite number generally significant of something that is wholesome and pleasurable. Such a stimulus therefore implies new activity far more comprehensive than the excitement of some given sensory center in the brain as the latest investigations in this direction go to show.

The odor of H_2S on the other hand does have an inhibiting effect on certain normal activities. It tends to inhibit breathing, for example, and if excessive may tend to suffocation which is directly connected with painful reactions. Furthermore the associations here are not the expansive, exhilarating ones, but are repressive, tending to the strain and tension that Herrick mentions. The difference between these sensuous experiences and the attainment of more comprehensive goods and ends is more a matter of extent than it is of quality. Food is

pleasant when hungry, but unpleasant when satiety is reached, which indicates that these bodily conditions do play a vital part in the matter. The organism is so truly an organism that every part is vitally concerned in the welfare of every other part, and this implies a widely diffused nervous reaction even for what is only a local stimulation. There is room therefore for this principle to operate even in such specific stimuli as odor or taste where the pleasure seems most intimately related to the stimulus itself.

In the other class of reactions emphasized especially under the furtherance-hindrance theory the same principles are involved. To-day we are using a different vocabulary and the explanation will be stated in a different terminology. But the fact remains that "motives," "drives," "set" "reaction patterns" have assumed an importance hardly less than that of instinct a few years ago. An analysis of human behavior has shown us that man is not simply an organism that reacts to stimuli in a constant uniform way, but that the condition of the organism as a whole plays a vital part in determining what the reaction will be. In other words, man is not simply a reactive organism in which present stimuli play the decisive rôle, but man shapes his reactions, combines them, coördinates them for the attainment of certain purposes or goods. When hungry the organism is "set" for food, when playing golf, for making as few strokes as possible, when playing whist, to take as many tricks as possible, when carrying through a business deal, to make some money in the transaction and so on *ad infinitum*.

To say that this set of the nervous system has nothing to do with the reaction is to be overzealous in our fealty to the one principle of reflex action; to say that the pleasantness or unpleasantness of the reaction is not condi-

tioned by this same purpose or goal is to fly in the face of facts, facts repeated scores of times in the daily life of any individual. Mind at its best is purposive, it does foresee certain results and sets itself for their attainment. But does the principle formulated above apply to all such cases, and what physiological implications are involved?

Does this mental set play a vital part in determining the affective result, in accordance with the principle that Herrick has formulated as the condition of pleasantness? "Set" implies physiologically that the nervous system is prepared to carry out a given body of reactions so as to attain a certain end result. Certain specific coördinations are provided for, the synapses involved are brought into close functional relation so that unless resistance is encountered there is just that free activity that has been mentioned as the condition of the pleasurable response. In some cases this set comes involuntarily as in the case of hunger and sexual excitement; in some it is a result of the higher mental processes that utilize the creative imagination and memory and conscious foresight. But whether the one or the other it implies this modification of the nervous system that conduces to the given reaction. Unimpeded action toward the goal thus set means pleasantness and inhibitions result in unpleasantness. Such are the facts of daily experience. Interpret these facts in terms of nervous activity and we are lead to some such conclusion as has been formulated above.

Another fact concerning man's normal life serves also to emphasize the principle we have suggested. In the course of man's daily life there are doubtless a considerable number of reactions that can fairly be called reflex, that is, simple muscular or glandular reactions to concrete forms of stimulation. It is significant, however, that it is not in connection with these that pleasure and dis-

pleasure appear. Besides these simple reactions, however, man shows also a large number of complex actions that are often distinguished as purposive in character. It is not this quality upon which we wish to insist, but the fact that they imply a group of reactions coördinated and organized for this particular effect. There is this mental "set," with a series of reactions organized for the attainment of certain particular ends. Indeed it is scarcely too much to say that life for the average individual consists of a succession of aims and ends attained only by such a series of correlated and organized reactions. The higher the type of mentality, the greater is the part played by foresight, by ends consciously chosen and provided for. It is in these moreover that the great bulk of man's pleasures is found.

Given a mind active enough to formulate plans and purposes of many sorts, and capable enough to find effective means to their realization and the possibilities of a full and happy life are met. Met, we say, but not assured, for there are individuals by the thousands who seem to show these traits of mind and yet who are troubled or sometimes tormented as was Hamlet by inconsistent and unharmonious purposes. How best to integrate and coördinate such conflicting ends it is not our purpose here to inquire. For the time being we are interested only to make clear what are the conditions that are productive of pleasantness and unpleasantness. And among the several conditions that obtain, this inner harmony or conflict of mental sets or purposes must assuredly be included.

REFERENCES

Herrick. *Introduction to Neurology,* Chapter XVIII.
Stout. *Analytical Psychology,* Vol. II, Chapter XII.
Sully. *The Human Mind,* Vol. II, Chapter XIII.
Baldwin. *Handbook of Psychology,* Part III, Chapter V.
Feeling and Emotion, The Wittenberg Synposium. See table of Contents for papers relating to the subject of this chapter.

PROBLEMS FOR FURTHER STUDY

1. Which is the more important factor in human life, pain, or pleasantness and unpleasantness?
2. To what degree and in what way are pleasantness and unpleasantness subject to control by the individual involved?
3. What is the source of aversion to painless diseases?
4. Under the theory of pleasantness and unpleasantness suggested by Herrick what is the source of the advantage of "moral" over "immoral" pleasures?
5. Psychologically are there any adequate grounds for distinguishing in value between the so-called lower or sensory, and the higher intellectual pleasures? Is jazz as good as Beethoven?

CHAPTER VI

THE DIFFERENTIATION OF THE AFFECTIVE CONSCIOUSNESS

THE affective consciousness is more highly differentiated than is the cognitive consciousness. That is to say, it appears under a greater number of distinctive forms. While of the latter form of consciousness we speak of sensation, perception, memory, judgment, reasoning, the list is by no means as long as the generally accepted list of the emotions alone. Furthermore, the intellectual processes named are not so much modifications of the cognitive consciousness as they are stages or steps through which the cognitive consciousness acquires information. This form of consciousness is organized, as it were, for the acquisition of knowledge, and these are forms of that process. Sensation is the basis of perception, and memory also contributes largely in this apprehension of objects. So without perception there is no memory, and without memory no judgment, no reasoning. These are integral parts of a fundamental form of mental activity, the process of knowing the world around us. The relationship is one of the strictest organization and coöperation.

The affective consciousness is by no means so closely organized, so organically coherent and unitary. Here, modifications are found that stand out as integral but independent facts. Fear does not depend upon anger, or love upon fear. The relation here is antithetical not complementary. Thus we may enumerate pain, sensory pleasantness and unpleasantness as ultimate independent facts, the various emotions, a long list, and finally cer-

tain forms of affective consciousness that are highly intellectual in their content, such as æsthetic pleasure, ethical approval, and the religious emotions. While there is doubtless something like mutual inter-relationship the contrast to the functional organization of the cognitive consciousness is striking. If the various emotions are to be regarded as fleeting, ephemeral, episodal, means of meeting a crisis, or even some fundamental, biological need like reproduction, they will each serve some specific purpose and so not be in constant demand like vision or hearing. It may be helpful, therefore, to bring into clearer relief certain facts concerning their phylogenetic development, even though this must be to a large degree speculative. And yet speculation that has a sufficient basis in facts is one of the legitimate means of discovering truth. The affective consciousness like the cognitive has been subject to the law of growth, differentiation and development.

There are affective states that are crude, sensuous, elemental, and there are others that are highly refined, dependent upon the existence of the higher mental processes. At the one extreme this element is bound up indissolubly with the sensuous experience; at the other it is refined, enriched by a wealth of past experiences, rationalized hardly less than man's best attempt at logical thinking. Even in the life of each individual this development may be readily seen. It is a long way from the first primitive anger response of a child to the moral indignation that comes with the perception of tyranny or injustice; so, also, from the native, unreflective devotion of parent for its offspring to a broad humanitarian regard for mankind, a long road has been traversed. The affective consciousness begins like the cognitive on a relatively low, dimly apprehended, reflex level, but it grows with experience and with mental development, becoming in its highest estate, refined, altruistic, intellectual, in fact, one

of the highest expressions of the mental life of man. The subject matter of æsthetics, for example, is to discover Reason in Beauty. So throughout all art and literary criticism the assumption is that there is logic in art and in a literary composition, and their true value is determined by the presence or absence of these principles in the work in question. But we must begin where consciousness itself began, namely, at the lower level and work upward if we would follow the course of its development and see its place in the functional economy of mind.

The first difficulty to meet us as we start on such a venture is the matter of origins, where to start. With so much of the history of man beyond our range of direct vision, we must fill in this crucial period with inferences that are at best not always conclusive. And yet man has more than once found means of filling in *lacunae* of this sort. Accepting the principle of evolution and the common origin of all life and mind we are able to reach back with a fair degree of probability far beyond the limits of knowledge that is experimentally verifiable.

Probably we are not far astray when we posit as the germ of the affective consciousness, something akin to pleasantness or unpleasantness. The young chicken, for example, reacts toward a certain caterpillar when it is taken into the mouth as if the sensation were one of distaste, wiping its bill on the grass and thereafter leaving members of this species severely alone. While it is true that apart from one's own experience this conclusion must be always inferential, to cavil at this is to assume a more than scientific standard of credibility. This quality of sensuous agreeableness is so universally true in the case of man, and the analogy is so widespread and so exact in the case of the higher animals that it is no straining of evidence to assert that it is as elemental as it is universal. Thus we may assume that snow is cold to the senses of a dog or horse as it is to man and when

this temperature sense is excited to excess it is unpleasant. So the pig on a hot day seeks its wallow but on a cold one burrows in its bed, a process that satisfies the canons of induction for heat and cold as cause. By just what process the different tastes, odors, and the various sensations have differentiated themselves from this first primordial sensitiveness, we do not know, and yet we are justified in asserting that the process has been one of differentiation, and development. In the protozoa to-day, the lowest types of animal life, we find them sensitive to essentially all forms of stimuli responded to by the higher species. And a careful reading of Jenning's or Washburn's studies of the reactions in the lowest organisms will certainly suggest that agreeableness and disagreeableness are there present. The analogy between the reactions of these organisms and of the higher is so close that this is at least the most natural, if it is not the only explanation possible.

The biological need for selection, for acceptance or rejection, is coterminous with life itself, and we only carry back the same principle that we see in action around us when we assert that pleasure and displeasure have been present and have been a principle of selection from the beginning of conscious life to its highest expression in man. With no affective tone to the taste of the caterpillar, for example, it is difficult to see how even the clearest apprehension of the qualities of taste of this object would lead to rejection by the chicken in his first or his last experience with this particular article of its diet. True, the proper reactions might have been provided for by a fixation of reflexes for each individual object. But this method of adaptation would have needlessly multiplied the reflexes demanded, and would not have been effective except with the one particular object. Furthermore, this could have been a successful method only in an environment that was relatively unvarying and

offered no surprises to the organism. The same fixity of response would also have been demanded of the organism. In a changing environment and in a developing organism such fixity of response would hardly have met the demands of adaptation. Pleasantness and unpleasantness are principles of more general application and of more versatile character than are simple mechanical reflexes. The affective reaction is a generalized response that applies to an indefinite number of instances and applies adaptively. Thus a rat entering a wrong doorway and receiving an electric shock will make the appropriate response directly and without previous experience with such a form of stimulation. The unpleasant taste of the caterpillar while a new experience for the individual chick is effective nevertheless.

Just how far back on the trail of life this form of consciousness can be traced depends upon the kind of evidence demanded. Apart from one's own experience, there is no absolute certainty. Even reports from other human beings are tainted with a possibility of error or deceit. But our scientific knowledge is by no means limited to matter that can meet this rigorous test. Inferential knowledge, and conclusions based upon analogy are as valid here as they are in any other field of science, provided the bases upon which they are founded are as well established. Jennings in his *Behavior of the Lower Organisms* holds that the principle of intelligent actions found in man is present even in such low forms as the amœba. And doubtless he is correct in so doing. For once the principle of analogy in behavior is accepted as a warrant for a conclusion as to the presence of mental traits, there is no natural dividing line from man and the higher animals back to the lowest forms of animal life. Moreover, the fact that some objects are wholesome and of value to the organism, while others are dangerous or harmful, is as true of the lower organisms as it is of

the higher. The only other alternative is to hold that all reactions are tropistic, human as well as subhuman. But this theory besides being difficult of application where the conditions are as complex as they are in man, leaves all consciousness as a useless accompaniment of reflex processes. Of this way of regarding consciousness Henderson in his *The Order of Nature* well says, "Consciousness was never produced in the process of evolution merely as an impotent accompaniment of reflex action." [1] The more rational way of considering the matter, the way testified to by a thousand experiences in the life of every individual daily, is that pleasure and displeasure do make a difference. In the case of man, around which subject our discussion centers, it is not a matter of analogy and inference, but of direct testimony to every individual. The affective tone of pleasure or displeasure is an immediate, integral part of experience and its causal connection with action meets every requirement of scientific induction and of common sense as well. Pain, therefore, we must hold does serve as a vital, causal factor in determining conduct. However much in the dark we may be as to how a mental state may causally affect the nervous impulses, that is no sufficient reason for denying what all human experience testifies to. To deny what we do not understand, or cannot explain is intellectual nihilism of the most drastic and inexcusable form.

The earliest stage that can be distinguished in this correlation of pleasure and displeasure with useful or harmful reaction is that found in connection with certain stimuli. With all of our sensory experiences, sight, hearing, odor, taste, temperature and organic sensations, there is an unmistakable affective component, most pronounced in the case of taste and odors, the two senses that guard the entrance to the alimentary canal and to the respiratory system. If sensations are in fact more elemental

[1] *The Order of Nature*, p. 91.

than perception then it is a fair assumption that the earliest form of consciousness was of this order, and sensory pleasantness and unpleasantness the first affective form of consciousness. That this would suffice in these primeval days, and in fact that it would be the only form of affective life possible, is also obvious. Without organs for perception of an object at a distance, and without power to recognize an object as possessed of such and such attributes, response to an immediate stimulus would be at the time the grand strategy of life and a selective response to the stimulus an adequate means of adaptation.

The point to be emphasized, therefore, is that so long as the reaction of the organism is determined wholly or chiefly by the nature of the stimulus, sensory pleasantness or unpleasantness would serve as a satisfactory principle of selection. The best evidence for this is that it accords so well with all that we know concerning the process of both phylogenetic and ontogenetic development. Moreover, this principle of sensory pain and pleasure still functions in the highest organisms although it has been supplemented by other affective endowments. However, it has never been displaced but only supplemented. Ice is still cold to the temperature sense, and if the stimulus continues is unpleasant. Fire burns and is painful. Sugar is sweet and generally agreeable. Wounds and lacerations are painful and are to be avoided. Thus does the principle of sensory pain and pleasures still hold, and still functions as a selective principle in a vast number of instances. The negative and the positive reaction to various forms of stimuli are found uniformly down the scale of life just as positively and unmistakably in the metazoa and protozoa as in the higher forms. And that the basis for this is the affective component of the experience, while incapable of demonstration, is a conclusion supported by the principle of analogy and accepted by some of our leading investigators of genetic phenomena.

But the point we are interested to make is not to establish the fact that animals do react differently upon the basis of pain and pleasure, so much as to show that this is an adequate mode of reaction as long as they react to a stimulus as a mere stimulus. Thus while we find the protozoa and the metazoa react to photic, thermal, chemical, and touch stimuli, they are reacted to, not so much as having objective reference, but merely as stimuli, producing what is called either a positive or a negative reaction. That is to say, it is doubtful whether anything that we would describe as meaning need be or can be present in such reactions. So far as can be seen from our outside point of view, all that is needed in the way of consciousness to secure selective reaction is some simple inchoate sense of pleasantness or unpleasantness. To a mechanistic or tropistic psychologist any form of consciousness is of course superfluous. The explanation lies in a mechanical, reflex response to two forms of stimuli. But we are beginning with the undoubted fact of consciousness present in man and are interested to follow the trail backward to see where the first dim traces might presumably be found. And the analogy is so close, and conditions so similar along the way that we find no reason for saying the trail ends before we arrive at these earliest known forms of animal life. We can find reason, however, for believing that these organisms can react adaptively provided only something of this affective component is present.

With the development of new capacities, however, this simple form of reaction becomes clearly and obviously inadequate. When distance receptors are acquired, when sight enables an animal to perceive an object at a distance, it does not follow that the stimulus from sight will have the same affective significance that touch or taste would give. When the organism rises to the plane where sensations are elaborated and integrated into per-

cepts this older device of sensory pleasantness and unpleasantness has been transcended. The point is worthy of some elaboration for it marks also a new and a higher stage in the development of the affective consciousness. While sensory pain and pleasure are probably the only affective factors in the lowest organism and remain an adaptive principle that has never been rendered obsolete even in man, they are from their very nature incapable of meeting the conditions of a selective principle with the new powers of the developing organism. There are in the case of the higher animals and of man situations where it will not apply. The point at which this old adaptive device was transcended was the point where sensation began to be integrated into perceptions. Response to a stimulus is one thing, response to an *object* is quite a different matter. Situations there are in the life of every higher animal where a positive or a negative response to an object is just as imperative as it is in the case of simple sensory stimuli, and yet there is no reason to believe that the object gives rise to any direct unpleasant stimulation of the organism. When a wolf or a bobcat sinks his fangs into the haunch or neck of a deer, the painful factor is doubtless present, but it is then too late for the deer to meet the situation successfully. The situation if met at all successfully must be met before the pain of contact and of laceration begins.

It is contrary, however, to all that we know of sensory stimulation to believe that the visual apprehension of either of these enemies is sensuously unpleasant or painful. And what is true in this instance is true of thousands of others where the deadly or dangerous character of the object gives no notice of its nature in simple sensory qualities of painfulness or disagreeableness. It is, to give another instance, extremely doubtful whether the odor of a human being is in itself really painful or disagreeable to a wild animal. Their reaction toward such

a stimulus is widely different from their reaction toward such a malodorous animal as the common skunk. In the latter case it is enough if they avoid contact with the animal; it does not call forth a real fear reaction. Nor is the breaking of a twig or the crunch of an approaching animal in itself painful to the most timid of animals. The blazing fire is a magnet to attract the attention of the child and yet must be avoided.

When the stage of true perception was reached, therefore, when stimuli were integrated into objects, and objects were apprehended as such, some radical modification of the affective machinery was due. At the stage of perception, I say, for when this type of mental reaction is attained we are conscious not so much of the present sensory stimulus but of the object as an entity with definite qualities and attributes that do not manifest themselves in the sensory stimulus as such. Thus the whiteness over the ground as I glance out of the window before me is not merely whiteness with its attribute of pleasantness or unpleasantness, but is perceived as snow with manifold qualities formerly experienced and now more or less consciously recalled to give body and character to the perceptual experience. In such a case the adaptive reactions are determined more by this complex of revived experience than it is by the mere whiteness. Thus coldness, wetness, slipperiness which are not sensations, more than the whiteness itself are the significant facts. They demand heavier shoes or stockings, rubbers, care in walking, the use of a shovel, putting up the car and a dozen other reactions as occasion arises. That is, I am no longer reacting to a sensation merely as a form of sense stimulus, but to an object that the whiteness suggests. We have passed from the primitive reaction, therefore, to one of a distinctly higher type.

Between these stages as we have outlined them is a wide gap to be bridged over by some affective device,

necessarily more complex than a simple reaction to pain, yet one that would not make too great demands upon experience and intelligence. To safeguard the organism and to make life for such a being possible the method of rejection when the stimulus proved painful must be supplemented by some device of avoidance before this unpleasantness arises. Especially is this urgent when animals come to prey upon one another and locomotion becomes a method of pursuit. Well may nature have put up the sign, "Wanted!—some device whereby an animal will, previous to experience, avoid contact with certain other animals and situations that are dangerous to its welfare. This device is not designed to supplant but to supplement the good and ancient device of sensory pain. It must from the nature of the organisms that are to use it be simple in plan and yet effective in results. Absolute perfection and a device incapable of leading animals astray not a strict requirement. A high percentage of successful reactions will suffice." Such was the need, and reaction based on emotions was the device selected.

That such a device was found and proved effective is witnessed by the fact that we see it working not only in human relations but in animal reactions everywhere. That it came not by some sudden psychological mutation is fairly well established; that it was an outgrowth from the principle of sensory pain and pleasure is in all probability correct; that it has not supplanted, but only supplemented the earlier device is proved by the fact that all animals, even man the highest, still find use for the earlier form; but that there is still a large field wherein emotional reaction is the selective and the guiding principle calls attention to the real need for the new device, and its fixation in all animals of the higher type witnesses its utility.

In all development by slow degrees the only way in which progress can be recognized or measured is by not-

ing the differences in points sufficiently separated to make the differentiation distinguishable. And the further apart the points upon which we fix attention, the more obvious become the differences and the more certain the direction in which the movement lies. So in the case before us we can distinguish best the essential features of the new method of adaptation by looking at it in its fully developed forms. What, then are the essential requirements of the new method of adaptation if it is to be effective in the broader environment made possible by the gradually increasing powers of perception, the reception and apprehension not of stimuli merely but of *objects?*

In the first place, it should, in the individual organism, function before it can have experimental or cognitive justification. To await experience is to invite disaster in a world where potential foes may be lurking on every hand. In an environment where natural enemies to life are found in many of the forces of nature, and in other organisms that prey upon these weaker and less sophisticated folk, some avoiding response is demanded that will anticipate this fatal encounter. Call it instinct, or prepotent reflex or what you will, the fact remains that the organism is so constituted that it will react adaptively before experience can have informed the individual of the possible consequences. Since every part of the organism anatomically thus anticipates experience, why should we not recognize the same principle in regard to cerebral function as well? Especially so, when we see evidences on every hand that proclaim their unlearned and yet adaptive character!

A recent experience of mine with some young bluebirds will illustrate: It happened that I was present when they first left their nest for experience with the wider world that was to constitute their true environment. As they flew for the first time some managed to perch on

branches of trees near the ground while others were not so fortunate or expert and so came safely to earth. I had no difficulty to approach both those on the ground and those on the branches taking both in my hands. The next day, however, I was unable to do so, for they flew away before I could approach them as I had done the day before. Now it seems extremely unlikely that they had learned anything during the twenty-four hours, either directly or indirectly to man's discredit, indicative of danger to themselves. Learning by trial and error would have required repeated experience, and is too slow to account for the change. Learning from an emotional experience, on the other hand, is not dependent upon repeated experience, but is effective often after one, and it often seems as the instinct psychologists assert, to be effective without any opportunity for learning whatsoever. That my birds had had any unpleasant experience with my neighbors is extremely unlikely, and yet on the day following their *debut* they were ready to react appropriately not only toward members of the human species but also to cats and other possible enemies as well. While we are not here arguing for the conception of instincts, it is true that a reaction based on emotional excitement is not so dependent upon repeated experience as are reactions that result from knowledge and foresight.

Again, the new device must be so impellent, so imperative, that it will take precedence over other forms of reaction, and even of some necessary forms of metabolism. Its dynamic potency must be commensurate with the urgency of the situation it is designed to meet. Thus while securing food is one of life's grim necessities, it is not usually so urgent as to escape from some immanent danger. In case of a conflict digestion waits therefore upon avoidance of threatening danger. In order better to accomplish this end, it is often necessary that the resources of body and mind be available and marshaled for meet-

ing the emergency. Consequently, there is to any strong emotion a widespread somatic resonance, a topic that looms large in present-day discussions of the emotions. But this bodily reaction, a reaction that reverberates to the depth of one's physical being, is no more certain, as we shall show later, than are the mental reactions that are also associated with emotional excitement.

The position here maintained then would be that the emotions as an instrument of adaptation are superior to sensory pain and the affective qualities of pleasantness and unpleasantness, in that they enable the organism to adapt its reactions to the object as an object, and not merely in terms of sensory stimulation to which it gives rise. As perception gives us information at a distance, so emotion gives adaptation at a distance. Thus since any number of objects that are sensuously innocuous at a distance may be deadly at close range, the only method of adaptation under these circumstances, is some method whereby this approach will be avoided. The emotion of fear does thus enable the organism to react adaptively at a distance as we see in countless cases in everyday life. Herein, therefore, lies their basic biological advantage over sensory pain and pleasure.

This does not imply that the older method is in any sense entirely obviated or outgrown. Situations remain in abundance where the old device of sensory pain and pleasure still functions effectively. The new device was not to supplant the older one, but to supplement it.

So valuable has this new method of adaptation proved to be, so rich in its potentialities, that it has become widely differentiated and applies in numerous interests of life, not all of them immediately significant for self-preservation. Fear leading to an avoiding reaction of objects capable of injuring or destroying the individual concerned, we may regard as one of the earliest expressions of this new device. To avoid one's enemies, to slip away

unperceived, or merely to outdistance the pursuer is doubtless one of the earliest as it is one of the easiest methods of reacting to possible sources of bodily injury. The only rival for this would be pursuit of objects that promise satisfaction for hunger. These two minister most directly to self-preservation and may for that reason be regarded as the earliest emotional reaction to awaken.

Anger is another modification of the affective consciousness, the utility of which under certain circumstances it is not difficult to see. It is opposed to meekness and means putting the muscular and mental resources of the organism at the service of the individual to resist aggression. Sometimes in past ages, as sometimes to-day, a spirited and a forceful offense is the best defense.

The sexual and the parental emotions have also a long and ancient lineage. Since it is the order of nature that generation should succeed generation, some biological and psychological device to secure this result was as imperative as the end itself. Biologically the necessary organs were developed and psychologically an impulsion toward their proper functioning was also secured. Structure and function are here as always inseparable, and when functions can be profitably assisted by consciousness, it too, seems to develop.

There is still another phase of the affective life characteristic enough to be dignified by a separate class name, and so dependent upon the higher intellectual processes as to be regarded as the crown of affective reactions and not infrequently as the supreme end of life itself. These are the sentiments, as they are usually called, and include the æsthetic, the logical, and the ethical phenomena. While the roots of these can be traced back indefinitely, as they are typically experienced, they are characteristic of the higher mental life. The important fact in this connec-

tion is that these be recognized as belonging clearly to that class of phenomena which we have called the affective. As such they have certain obvious relationships both to pleasantness and unpleasantness and to the emotions.

Since the emotions have arisen apparently to enable the individual to meet some specific contingency or crisis, they are generally more sharply differentiated than are pleasantness and unpleasantness. Consequently, if we are interested to note family traits we will do well to compare the æsthetic, the logical and ethical reactions not with the emotions but with the less differentiated forms of pleasure and displeasure. They are forms sufficiently dependent upon cognitive factors to be regarded as separate species, but closely enough related to the other forms to denote the family to which they unquestionably belong. Neither can without peril be neglected. In a word, it is our belief that in most discussions to-day the emotions are so set apart, unconsciously it is true, from these two other forms of the affective consciousness that a false perspective is almost inevitable. Let us remember therefore, that in order to be seen aright each class must be considered in relation to the two other types that we have enumerated.

The emotions, however, do not mark the highest stage or method of adaptation that life has developed. They have their own specific virtues it is true, but are in some fundamental respects inferior to intelligence as a means of adjustment. Intelligence is more analytic, more discriminating, is primarily reflective not impulsive, and hence can see further and more accurately. It can not only distinguish better between objects that are really dangerous and those that are innocuous, but it can so analyze as to identify the elements wherein the danger really lies. Emotion knows little of causes but takes objects largely at their face value. Intelligence sees beneath the surface,

even though the source of harm is hidden from the sensory or perceptive consciousness. Intelligence, however, is handicapped by the basic fact that it waits upon experience, sometimes necessitating a long and probationary period, when an immediate response is demanded imperatively.

Intelligence, therefore, is but poorly adapted to meet the needs of the probationary period of youth either of the individual or of the race, but is admirable in its own time and place. While individuals come more and more to depend upon it for guidance, so far as can be seen the time has not arrived nor is it even in sight when the more primitive forms of affective phenomena, pain and pleasantness and unpleasantness and the emotions can be dispensed with. Rather the fact is, that as intelligence has developed even to the highest reaches of genius, the affective factor in consciousness has developed concomitantly with the cognitive. Not until the individual is born with an encyclopedic understanding of the world in which he is destined to live, with facts and principles organized for immediate action, not until the age-long method of gaining experience by learning, of development from helpless infancy to mental maturity has been supplanted by some Athena-like miracle of mental maturity at parturition will the method of adaptation through knowledge take the place of the affective consciousness completely. Granted that this is the goal toward which the evolutionary process is moving that goal is still far beyond the horizon of a possible attainment. So far as can be seen, Nature's method will continue to be a combination of the affective with the cognitive, not the exclusion or extinction of either the one or the other.

REFERENCES

Jennings. *The Behavior of the Lower Organisms.*
Washburn. *The Animal Mind.*

Feeling and Emotion, The Wittenberg Symposium.
Hoisington. "Pleasantness and Unpleasantness as Modes of Bodily Experience," pp. 236ff.
Bühler, "Displeasure and Pleasure in Relation to Activity," pp. 195ff.
Kiesow. "The Feeling-tone of Sensation," pp. 89ff.
Krueger. "The Essence of Feeling; Outline of a Systematic Theory, pp. 58ff.
Claparade. "Feeling and Emotions," pp. 124ff.

PROBLEMS FOR FURTHER STUDY

1. What is the relative value of the two lines of argument usually given for ascribing consciousness to the lower animals, namely, arguments from structure, and arguments from behavior?
2. How far do the arguments for consciousness as a cause of action meet Mills's Canons of Induction?
3. Criticize the position taken in the chapter above that the development of the emotions was contemporaneous with the development of the power of perception.
4. What evidence can be adduced to show that sensory pleasantness and unpleasantness, the emotions, and the higher intellectual "sentiments," so called, are of the same generic character and function?
5. What are the outstanding points of difference between sensory pleasantness and unpleasantness and the emotions?
6. Assuming that pleasantness and unpleasantness is a relation between a particular stimulus and the whole organism, how could such a relationship be interpreted in terms of the nervous system?
7. Does the fact that æsthetic pleasure as, for example, in the case of music, is dependent upon the sensitivity of the sensory organ militate against the importance of the central or mental factor as a vital component in such an effective response?

CHAPTER VII

THE EMOTIONS

Of all the manifestations of the affective consciousness the emotions are to-day receiving more attention, more investigation, more discussion than any others. The Wittenberg symposium on the emotions was symptomatic of this general interest in psychological circles. Scarcely a copy of current psychological magazines appears without discussion of some phase of the problem. With its direct bearing upon the problems of sociology, and with the present emphasis upon motives or desires, as well as the popular view that in some way the emotions have a great deal to do in determining the conduct of individuals, it would appear that this emphasis is destined to continue and that the emotions are to play a major rôle in the psychology of the coming years.

Theories widely diverse have appeared in recent years and still await reconciliation or at least harmonization. The James-Lange theory is still debated *pro* and *con* with an interest and fervor scarcely less than when it first appeared. The difficulty therefore is to keep the subject within proper limits, and still do justice to the various aspects of truth that appear from the various points of view that writers assume. To-day the favorite approach is through investigation of the bodily reactions, circulatory, respiratory, glandular, visceral, and all the rest. And all of this is important, too important to be omitted or neglected. But still nothing is gained unless it be a false simplicity, and much may be lost by discounting introspective data. What is needed therefore is a theory that will do justice to both aspects of the problem.

To be seen in their true perspective and character and to insure the consideration of this double aspect of the problem, the emotions should be considered not as an isolated fact or phenomenon, but in relation to the other phases of the affective consciousness. The functional or biological standpoint is valuable also in calling attention to the net result of such reactions. Too often conclusions are drawn from data which while experimentally factual, are not connected up with other facts equally well established. The James-Lange theory, for example, based as it is upon physiological data primarily does not give adequate recognition either to the introspective facts at hand, or to the functional results that are obvious enough to anyone whose attention is directed thereto. This fact, however, in no way discounts the significance of the data upon which such theories are based. It is not the facts themselves that are at fault but the theory.

One of the recent physiological theories relates to the mechanism of nervous control of the bodily organism under emotional excitement. Physiologists have come to distinguish three groups of nerves, structurally a part of the cerebro-spinal system, but functionally distinct enough to be regarded as separate units of the nervous system, that are especially concerned in emotional excitement. These three groups constitute what has come to be called the *autonomic system.* The three groups are the *cranial,* the *sympathetic,* and the *sacral.* The basis for regarding them as constituting a group lies in the fact that they are concerned with the control not of the skeletal musculature but with the internal organs, the viscera, the heart, the lungs, the stomach and intestines, the sex organs, with blood control and with various glands of the body.

Psychologists have accepted these facts as important, as, indeed, they should, and some of them regard these physiological changes as constituting the essence of the

emotion, as, in the writer's opinion, they should not. Thus, Allport in his *Social Psychology* seems to think that in the functioning of these three groups of nerves there is an adequate foundation for completing and making tenable the James-Lange theory.

Another fact established by physiologists in recent years is the presence and functioning in the blood under emotional excitement of certain internal secretions or hormones passed directly from the glands that secrete them into the blood stream and thus soon brought into contact with various organs whose activity they influence in the most striking way. Of a half dozen or so that have been identified adrenin is, so far as we now can say, the most widespread in its effects. Thus adrenin is a stimulant for heart action, causes the blood to coagulate more rapidly, reduces fatigue, causes glycogen from the liver to be released, in a word causes changes in the body identical, Cannon says, with those produced by the stimulation of the sympathetic nervous system. That the adrenal glands are subject to stimulation through the same system is an obvious implication and is a conclusion that has been established.

For all such facts the psychologist has the best of reasons to be grateful, and no reason at all for saying these are apart from his sphere. To understand the mechanism through which these bodily effects of emotions are produced is pure gain, provided we do not jump to the conclusion, as Cannon himself did not, that in these bodily effects we have the very essence of the emotion itself. Here we are face to face with one of the great problems of psychological theory. Are these bodily changes the emotion itself, or are they the bodily expression only of the reality we are discussing? This is not the place to argue the point but we will pause for a word concerning the logic of the situation.

Accepting the modification of consciousness as the

reality and these bodily changes as the mechanism through which the emotion expresses itself in the objective world, it will be noted that both emotion and bodily expression have some real utility or function. Accepting the bodily reactions as the essence of the emotion, the conscious reaction becomes functionless, an epiphenomenon, as Huxley expressed it. While all of this may be true, the burden of proof clearly belongs to those who would discount or nullify the conscious aspect that is so impressively present in the consciousness of man. Thus, while it is true that the several emotions have certain pronounced traits that give them each their individual character, it is also true that they are states of consciousness and as such subserve the purpose or function of consciousness whatever that function may be. Granted that they each secure some specific end, escape, overcoming an enemy, food, it is also true that these ends may be regarded as serving some one biological function.

The point we wish to emphasize, in other words, is that the emotions are modifications of the affective consciousness, designed to meet certain conditions and situations for which simple pleasantness and unpleasantness, as we have shown above, are but poorly adapted. They are each distinctive in certain respects just as the various organs of the body are different in structure and function. And yet they are bound together in an organic whole in spite of this disparity. Not only so, but the function of each organ, heart, lungs, liver, and all the rest can be understood only as it is seen that they subserve some purpose that relates to the organism as a whole. The stomach does not digest food only for itself. The heart causes the blood to circulate outside of its own walls, and the liver stores up food not for itself alone. And so it is with the various forms of the conscious life. The emotions each contribute something specific and dis-

tinct from the others, but they are all useful in so doing, and promote the welfare of the living organism.

From this broader standpoint of biological function or end, there is even serious question whether we are justified in emphasizing a separate function for the cognitive and the affective forms of consciousness. Their immediate objective is of course distinct, but each objective is a complement to the other and should be so considered. This is the only way in which the larger truth can be envisaged and the function of each appreciated. If, therefore, for the sake of analysis we find it necessary to abstract and to differentiate, by all means let us before we leave the matter not forget to synthesize and integrate what we have taken asunder. Were a little more care extended in this direction I feel confident that a great many of the current schools and "isms" in psychology could be obviated and unity and coöperation promoted. With our point of view and immediate purpose thus set forth we turn to consider first some of the outstanding attributes of the emotional form of mental reaction.

In the first place, as compared to simple sensory pain and pleasure, we notice a lack of correlation between the stimulus and the resulting mental reaction. While there remains much to be explained in regard to the former sort of experiences, the problem is far more complicated and involved in the case of the emotions. In the case of chemical stimuli, for example, we can at least say that the bitterness of quinine or the sweetness of sugar is chemically determined, and that there is uniformity of mental reaction to such special forms of stimulation. And so with mechanical stimuli and other forms of simple sensory stimulation, there is at least a noticeable uniformity between the stimulus and the resulting mental state. But in the case of emotional stimulation, we cannot so confidently turn to the stimulus for the explanation of the mental reaction. Uniformity is here largely

lacking. What excites you may not excite me, the person you find so emotionally overpowering I may regard with the utmost indifference. There are now other factors to be considered than the nature of the stimulus itself. Stimuli that excite in one person fear, or anger, or disgust, or curiosity, may for another be strikingly impotent. Objects may or they may not produce a given emotional reaction. This variability must be regarded as due not to the character of the stimulus but rather to the character of the receiving organism. In spite of all attempts to find the natural stimuli for fear, or anger, or love, or curiosity, experience comes in so to modify the reaction that each person must be investigated for his own list of affective stimuli. The reaction is not a matter of simple response to a stimulus that is productive of the same effect upon any normal individual, but is dependent upon experience and learning, or, as we say to-day, upon conditioning.

Instead of uniformity of response therefore there may be, and often is, wide variability. Curiosity and interest are not of common intensity and impulsion for every subject of the college curriculum, and no more so for subjects outside of it. Subjective conditions here play a much larger part than they do in the case of sensory pain and unpleasantness, or at least, the subjective conditions are more variable, less uniform, more dependent upon concrete experience. The stimuli that causes fear in a deer, for example, are not in themselves fearful. The insult that formerly called for a duel with death a near possibility may now be passed over with indifference. In fact, as we suggested in the last chapter, this lack of correlation between the sensuous character of the stimulus, and the reaction demanded, was just the fact that made emotions and instincts necessary. Since the stimulus did not carry in itself, as it were, the appropriate response, it was necessary that provision should be made for it in the

receiving organism. And this demanded a mechanism far more complex than the simple reflex, or even the compound reflex of Spencer. At any rate what we find is something that is psycho-physical, something that reverberates throughout the physical organism, but which produces modifications of consciousness no less comprehensive and no less characteristic.

An adequate explanation for this lack of correlation between the stimulus and the response is not an easy one to find. Why should some simple, and in itself innocuous stimulus produce an emotional reaction of such Gargantuan proportions? The two leading forms of explanation that have been suggested are instinct and habit. Instinct appeals to an innate structure that is hereditary and needs only to be touched off to produce the widespread manifestations that characterize the response. The proponents of habit contend that the response is a matter of learning or conditioning. But it is significant that neither explanation can dispense wholly with the principles involved in the other. If we accept the instinct theory the problem remains to explain how new forms of stimuli become effective as they unquestionably do. And the answer is by experience or learning. If we take habit as the leading principle and conditioning as the *modus operandi,* we must still have some form of hereditary reaction to begin with. Under such conditions there is only one position that is tenable, namely, that both play an active part in determining the actual result and that any tendency to neglect either factor is sure to be attended with omissions and distortions that will vitiate the result. Emotions, then, are less dependent upon the nature of the stimulus than are sensory experiences of pleasantness and unpleasantness, and experience counts far more in determining the result.

Among the principle characteristics of emotional reactions must be mentioned their deep-seated and widely

extended bodily effects. This is the one aspect of the problem that looms large in all current discussions and stands in little danger to-day of being disregarded or minimized. Since it relates primarily to the bodily organism it is adapted to "objective" investigation and to experimentation. Consequently it is at present the point of attack for most investigation. In the light of such facts it is not a matter for surprise that it was not a psychologist but a physiologist who wrote the text that has become almost a classic in the study of the emotions. Cannon in his *Bodily Changes in Pain, Hunger, Fear and Rage* has made a real contribution to our knowledge of the bodily reactions in such forms of emotional reaction. That the emotions do have this widespread, deep-seated bodily resonance is not a recent discovery, but was given as one of their characteristics long before modern experimental methods of research were begun. What is recent is the detailed account of just what these bodily reactions are, and the stress that is being laid upon them in the interpretation of emotional responses. So important is this aspect of the emotional reaction that it will be worth our while to sketch the development of this point of view.

In the psychology of the latter half of the last century when something of the old "faculty" point of view still obtained there was little question of theory involved. Under this conception of the mind the problem was not one of connecting the emotions up with life or with other activities of the organism. Then the problem was one of mere introspection and of description. Since "faculties" were in the nature of water-tight compartments of the mind the proper way to discuss any given activity was to get inside this compartment and to describe as accurately as possible what was there seen. By hypothesis each action was practically isolated and dissociated from an intimate bearing upon other forms of reaction. As a consequence what we find in texts of this period is largely

introspective description of the conscious phases of the different emotions, not attempts to show how they have influence in determining human conduct.

Let it not be thought, however, that this introspective examination was altogether useless. The emotions are intense conscious experiences and their principal conscious attributes do signify something, though just what this was in terms of action and of control did not then appear. This was just where the compartment theory excluded practical consequences. What was needed was a conception that would emphasize more their functional aspect and thus connect them up with the everyday, practical activities of life. This demand was first met, not by some new psychological investigation and theory, but by the biological theory of evolution and especially by Darwin's discussion of emotional expression.

The very conception of evolution implies that all mental traits as well as the various forms of bodily structure have not only a history, but that they are concrete expressions of something that have use, practical utility, and so play an actual valuable part in meeting the exigencies of life. So much was implicit in the doctrine of evolution itself. In his discussion of the expression of the emotions this was made for this particular subject-matter so explicit and so concrete that it has not ceased to influence opinion both psychological and biological. If the emotions do, as Darwin contended, play a part in survival, and the various forms of their expression each can be shown to have, or to have had, some utility in this direction, then the emotions can no longer be regarded as isolated mental states whose reality and end lie in their mere conscious attributes. If this theory be true the emotions have become truly functional in the part they play in life and must be so interpreted.

With this changed conception of their nature and

significance, however, there was no sudden or revolutionary modification of their conscious aspects. In this respect they remained just what they were before. In fact, no new theory, however startling or true it may be, alters the basic facts it was meant to explain; at best it only gives them a new and fuller meaning. Far from casting aside as meaningless, therefore, the conscious aspect of the emotions, as some are disposed to do, we should be looking for real meaning and actual practical significance even in their conscious attributes. The old introspective psychology failed to connect up the emotions with life and with action, but it does not therefore follow that there is no connection present. Their descriptive discussion failed to touch what we to-day regard as the most vital point in the whole matter. In this respect the introspective standpoint must be changed or at least supplemented.

Some of the chief points that are to-day established beyond dispute as a result of these physiological experiments we may pause to state briefly. First, there is a very pronounced effect on the distribution of the blood with an acceleration or retardation of the heartbeat. This being observable by surface manifestations such as flushing or pallor of the face and changes of the pulse needed no refined technique to make its presence known and was therefore long ago noted. Again it has been shown by Pavlov and others that the processes of digestion are affected both positively and negatively by the affective character of the response to food and by emotional excitement on the part of the subject. Cannon after citing experiments from several investigators, concludes: "All these observations clearly demonstrate that the normal flow of the first digestive fluids, the saliva and the gastric juice is favored by the pleasurable feeling which accompanies the taste and smell of food during mastica-

tion, or which are roused in anticipation of eating when choice morsels are seen or smelled." [1]

Furthermore, these visceral changes are just as evident, just as pronounced, under emotional excitement as they are under direct sensory stimulation. The former have as a matter of fact a prepotency over the latter, so that good food offered may fail to inhibit the effects of rage or of great fear. The relative significance of these two facts, emotional excitement and presence of food, is indicated by the experiment of Hamburg as cited by Cannon:

> When food was shown, but withheld, the hungry dogs were all eagerness to secure it, and the juice (the gastric juice) very soon began to flow. The boy, on the contrary, became vexed when he could not eat at once, and began to cry: then no secretion appeared. Bogen also has reported the instance of a child with closed esophagus and gastric fistula, who sometimes fell into such a passion in consequence of vain hoping for food that the giving of food, after the child was calmed, was not followed by any flow of the secretion.[2]

This effect of emotion upon the glandular activity connected with digestion is paralleled by modification of muscular activity in the digestive tract. By means of the X-ray it is possible to see this result of emotional excitement upon the muscular contractions of the stomach and intestines so that here again direct evidence is at hand. As might readily be inferred both fright and anger cause the peristaltic movements to cease so that both the chemical and the physical factors are similarly affected. The result of strong emotion, therefore, upon visceral activity is immediate and direct. So effective is it indeed that the process of digestion may not begin for an hour or more after the external marks of such excitement have disappeared.

Thus experimental investigation has demonstrated

[1] *Bodily Changes in Pain, Hunger, Fear and Rage,* p. 8.
[2] *Ibid.,* p. 10.

just what many of these internal physiological changes are. In the face of so many facts of this nature, facts that can be verified by any careful investigation, it is the easiest thing in the world to step over from the psychological laboratory to the physiological, or to assert that the facts obtained in the latter alone suffice, and so to forget that there is a conscious, a mental component that should not be neglected and may even possess a real causal efficiency.

Let it be understood then that the emotions do give rise to a widespread bodily reaction that includes both viscera and other parts of the body as well. There is abundant evidence for regarding an emotional reaction as a response of the organism as a whole to some stimulus. Cannon and others have shown us how pervasive is this response and partially, at least, the means by which such changes are effected. But whether these organic changes really constitute the emotion as the James-Lange theory holds, or are to be regarded merely as its bodily expression, is still a question upon which there is decided disagreement. But upon the facts themselves there is no reason for difference of opinion. The net result is that the energies of the whole body for the time being are coördinated and placed at the disposal of the emotion, so to speak, to carry out those activities toward which the emotion so strongly impels.

To this widespread bodily response there must be added also a widely extended mental reaction that is no less dramatic and significant than are these bodily changes. When fear or anger, for example, is aroused the mental reaction is just as positive, just as pronounced, just as purposive as are the bodily changes that occur. Under such excitement the mental tempo is quickened just as truly as is the heartbeat, the ideas that come to consciousness are subject to emotional selection, often to a fault, and the imagination plays with the theme with an

energy and forcefulness not at all conducive to truth and soberness of thought. Let us note some of these effects a little more in detail.

That there are variations in mental efficiency and a constant shifting of attention are facts about the mental life concerning which there is no question. One is not always at his best and, more fortunately, not always at his worst. Fatigue, lack of interest, or other major interests, may decrease one's ability to deal with a given subject effectively for the time being. On the other hand, there are times when the current of thought runs strong, when ideas come readily to mind and even creative action seems to come from some inner impulsion. New emotional excitement within limits must be regarded as a thought stimulus as well. Thus interest, which is simply a pleasurable, affective component of certain mental reactions in connection with some given subject, adds to the efficiency of the thought process and is a subjective condition under which alone real creative thought occurs. Not that this interest alone is sufficient, it cannot furnish ideas where ideas do not exist, but it is the condition under which one's best work can be done. Under this pleasurable state of mind, ideas come more quickly, more easily, as if this were the condition of a lowered internal resistance, as indeed it may well be. But this condition of effective thought is not general but specific; it is limited to the particular field, the particular problem that occupies the mind at the time. Under the stronger emotions, therefore, not only is there an immediate shifting of attention to the problem that excited the reaction, but thought is quickened in this direction so that suggestions as to how to deal with the situation come instantly to consciousness.

One of the most obvious effects of emotional excitement upon the thought processes is the control it exerts upon the associations that will arise and be entertained. It is no exaggeration to regard the emotions as a real

selective principle over the thought processes for the time being. The associations that will come to consciousness are just those that will serve to justify and to promote the end toward which the emotions impel. To illustrate: In a faculty volley ball game a year or two ago one of my opponents, a very good friend of mine, did something that caused a flush of anger to arise in my bodily and mental organism. Doubtless the bodily reaction of changed heartbeat, more glycogen in the blood, a higher tonicity of the musculature and all the rest were present. But these certainly did not exhaust the changes that followed the offense. Instantly I found my mind busy planning various ways in which I could make life a little more unpleasant for him, not merely in connection with the game but in outside relationships. No more rides for him in my automobile, no more of the little courtesies and coöperations that were common to us. So sudden and pronounced was this new set of associations and ideas that even in the midst of the game my attention was attracted to the fact, and my psychological interest soon supplanted the affective reaction. But it was to me an impressive illustration of the fact that the effects of an emotion extend to the mental reactions just as certainly as they do to the bodily. And, after all, what fact of daily experience is better substantiated than just this truth that we are emphasizing. The cause of the blindness that love is said to produce, the lack of judgment shown under any strong emotion, fear, jealousy, envy, hate, pride, and the rest finds a natural and an adequate explanation in the selective influence which the emotions exert over the content of consciousness. When one is in love with a member of the other sex, the intensity of the emotion excludes ideas unfavorable to the person involved, and leads one to accept unquestioned those that are favorable. In anger we do not think of the many favorable attributes of the person toward whom the emotion is directed, but unfavor-

able ideas come flocking to consciousness with a wealth and a seeming validity that play havoc with sanity of judgment and good sense.

Thus under any emotional excitement we find in our minds a preponderance of ideas favorable to the action or attitude toward which we are impelled, and a tendency to discount all that are opposed thereto. This is in truth the principle that gives rise to the perverted form of thought known to-day as rationalization. It is the most natural thing in the world and almost as easy as it is natural to give reasons for doing what we wish to do. An emotion increases this tendency so that for the time being, that is, while under the stress of the emotional excitement, thought is subservient to the end desired.

Not only does emotional excitement control the flow of ideas, as it were, the associations that will come to consciousness, but it leads to a perverted method of evaluating them when they are thus present. Under this emotional stress of mind ideas are evaluated not in relation to the interests of life in general, or even to the major interest of the individual, but in relation to the immediate end involved. Esau saw nothing, considered nothing but the mess of potage, and the pleasure of satisfying his immediate desire.

Besides controlling the ideas that will come to consciousness and be there entertained, any given emotional excitement is a spur to imaginative activity. That the imagination plays most freely around our major emotional interest is a proposition that scarcely needs argument in its support. And any temporary excitement, as in anger or fear, is often a stimulus to such activity when reflection or thought plays any part in the total response. The lover has visions of future happiness with his beloved; salacious ideas and situations come almost inevitably to mind during times of sexual excitement whether in waking life or in sleep. A mother spends hours

with visions of a career for her child. A person under the impulsion of hate plots dire revenge in very specific, concrete terms. When excessive pride or conceit is awakened, thoughts that will justify the emotion come readily to mind. We shall have more to say in another chapter concerning the imagination as a stimulus for the emotions: here we call attention to the fact that the emotions color the thought and imagery that follow any emotional excitement.

Reasons why the resources of mind as well as of body should be at the disposal of a given emotion are clear. If consciousness counts at all in human behavior, if the ideas present in consciousness and the affective component of a mental response have any part in determining just what the reaction shall be, then it is obviously just as important that these shall play their part as it is that the resources of the body should be directed to a given response. When it is recalled what a large part the subjective condition called attention has to play in the activity of our sense organs alone and in giving meaning to sensory stimuli there is no need to apologize for placing a stress upon the mental processes equal to that upon the physiological. If the bodily processes are the immediate agent for producing the physical response, the mental factor is the directing principle that selects and coördinates and makes effective what were otherwise mere random responses. Whatever may be the facts in the case, whether all the processes, both bodily and mental, be equally reflex or in reality purposive, there is no just ground for distinguishing between the two in this respect. Apparent purposiveness can hardly be denied in either case. Body and mind in emotional reactions work together, coöperate in securing adjustment, just as truly as they do in any other form of behavior.

The temporary fleeting character of the emotions is another attribute that has long been noted, and is of some

significance in coming to a just appreciation of their place and function in the reactions that men and the lower animals make to certain situations. An emotion is a wave-like modification of consciousness that rises more or less rapidly to maximum intensity, then fades more slowly usually, but still soon passes away and leaves the organism in its ordinary state of equanimity. It is needless to say that this mental order of events conforms fairly closely to the physiological process of the organism. Not entirely, however, for it is not definitely established that either one or the other is the efficient cause and the other the effect. So impressive are these facts to some that they have led to the formation of the so-called "emergency theory of the emotions," and there are some emotions that seem to be just this. If we take the broad viewpoint, it would seem logical to regard this whole *ensemble* of mental and bodily reactions as simply a complex reaction to a certain stimulus.

The daily life of every individual consists of a sequence of reactions to one stimulus after another. Some can be reacted to readily and effectively; others are more complex in the reactions they demand, and the organism approximates this demand to the best of its ability. Situations that excite emotions are sometimes critical, demanding for satisfactory adjustment immediate and often precipitate action: they are often complex, demanding a reaction of the total organism, both bodily and mental as we have shown. But having responded successfully, the incident is closed, the organism goes on its way meeting other needs, responding to other situations. Not all situations that call forth some emotional response, however, are so urgent that they can properly be called emergencies. This is where the term when used as a descriptive adjective may give a false emphasis to some form of emotional reaction.

There is another attribute of the emotional conscious-

ness that should find a place in the enumeration that we are making. Not only are some of the emotions the most intense, the most urgent, the most impellant form of conscious experience, but they together with other forms of affective consciousness have in them a sense of value, of eternal newness and significance that helps to explain their dynamic character. This particular pain is worse than any other; if it were only in the other hand or foot it would not be so bad. So also this particular insult is the one that cannot be forgiven, this present fear is so appalling. It is, we may say, characteristic of any strong emotional or affective experience to possess for the time being a feeling of transcendent significance. Since emotions secure action through sheer impulsion, the utility of this attribute is apparent. No matter how often one may have experienced anger, or fear, or love, or jealousy and seen their vanity, this new experience comes with full force and demands action with pristine urgency.[8]

To illustrate: I knew a few years ago a woman of exceptional brilliancy of intellect who suffered acutely in thunderstorms. When the bombardment began, and however often it came, she was wrought up almost to the point of nervous collapse. The fact that she had never been injured by Jove's thunderbolts mattered not at all. The fear in each case was as perturbing, as overpowering as it was in the cases preceding. The fear was eternally poignant, however often it was experienced. There is another illustration better adapted to college students and to young people in general that we shall take time to mention. The protestations of the lover that this is the only time that he has really loved a maiden is to be interpreted in the same way. The last, the present experience is the only one that counts, that has all the marks of reality. So

[8] This principle is modified somewhat by the principle of negative adaptation, but this works only in relation to some particular form of stimulation. When the emotion is aroused it still possesses the attribute we are discussing.

real is this that it must last forever and crowd from the mind all interest in others, worlds without end. How natural it is to believe, and to avow that this experience is unique in intensity, in durability and in quality! To believe this is as common as the experience itself.

How then shall these lover's vows be interpreted? As examples of wanton deceit? As exaggerations natural enough under the circumstances, but with no more substance than are usually found in New Year's resolutions! Our principle will help us to understand them correctly. Under our interpretation there is no need to impeach the honesty of the lover but only his accuracy. It is a part of the emotion to assume this world-defying proportion, this cosmic character. It is the part of this as of any other emotional experience to secure action by this living vital sense of its own reality and of its transcendent worth. It may, indeed, prove to be all that he claims it to be, but his feeling of assurance is by no means sufficient evidence for the fact. But such reflections are no part of the individual's own reactions. Away with all qualifying adjectives except superlatives! Only as it is thus regarded with profound assurance will the proper impulsion to action come. A love that is fleeting not eternal, a love that is not unique but only one of many, a love that is finite and frail, not infinite and cosmic in its import, how shall it ever win its way?

There is another expression of this truth that is of even wider application than the instance just cited. It is wider because it appears in each individual not once or twice but times without number. One of the most significant facts in human experience is the fact that emotional experiences can be lived over and over and with no loss in their vitality and interest. Thus do we read the classics over and over, listen to operas again and again and find our old familiar songs never failing in their appeal, and

experience permanent charm and beauty in the masterpieces of art and of literature. In matters pertaining to the cognitive consciousness we would pass ever on to the discovery of some new truth, but in our emotional life the old if worthy is ever new.

Doubtless there is utility in the principle we have illustrated. To be less and less responsive to emotional exaltation would be to lose just the dynamic urgency that makes the emotions effective as a means of adaptation. To feel toward any situation that excites an emotional reaction the full and ever renewed sense of value involved is to meet the conditions for an immediate and a vigorous response. Without this pristine intensity, this high potential of feeling and impulsion, the point of the whole device is lost.

There remains to be discussed another attribute belonging to emotional reactions, that, all things considered, must be regarded as their most characteristic feature. This has been variously denominated, "drive," "reaction tendency," "impulsion," and the like. It calls attention to the fact that the emotions are functionally dynamic leading to some more or less specific end-result. Here from a broad biological point of view, we find their purpose, their *raison d'être.* As conscious states they are essentially extrovertive with a drive toward objective results. In this respect they are more closely related to pain and pleasure than they are to the more contemplative and intellectual forms of the affective consciousness. In respect to their impulsion they may be compared to hunger. Hunger is at once a sensation and an appetite, a state of mind that turns the energies of mind and body toward the matter of food supply. The restlessness that accompanies hunger is both a matter of common observation and of experimental verification. To be hungry is to think of food, to search for it, to accept it eagerly. Emotions like bodily hunger and thirst have a normal satisfier

not in something ingested as in these instances but in some action that produces definite objective results.

True it is that the satisfaction has been highly complicated by social restrictions and customs, but this does not alter the essential psychological fact that we are now considering. Emotions are not merely subjective states characterized by pleasantness and unpleasantness as Allport contends, but are best distinguished and differentiated by the character of the impulsion that expresses their real dynamic character and biological function.[4] With each of the emotions, Fear, Anger, Disgust, Pride, Curiosity, there is an impulsion, an urge to some action, the intensity and forcefulness of which depend both upon the nature of the emotion itself and upon the degree to which it has been excited. The impulsion that comes with fear is to escape from the immediate locality where the danger lies, or in the case of predatory animals and enemies, to escape notice by concealment. And the strength of the impulsion in this instance conforms to the general biological need for quick adjustment. Since extinction may be more immediate through enemies with superior strength and ferocity or through the destructive forces of nature, than from lack of food, it is fitting that the tendency to avoid such encounters should be of corresponding strength and urgency.

Anger prompts to offensive action of some sort, primarily to physical injury; but with the acquisition of new interests and aims, to insult, to disparagement, or to injury of any aim or objective with which the individual has identified himself. While the exact character of the reaction may vary widely with these changing conditions, the objective, namely, injury of some sort to the interests of the object of the emotion, remains unchanged. But the impulsions that accompany anger and fear are too well known to need more than casual mention.

[4] *Vid. Social Psychology*, p. 90.

The impulsion that accompanies disgust is an interesting variant from that of fear. Here physical injury is not necessarily involved, but an unpleasantness resulting from physical contact. All that is demanded therefore is avoidance of physical contact. In all probability it arose in connection with food taking as is suggested in fact by the facial expression assumed under this form of emotional reaction. But while first expressed in regard to certain articles of diet, it, like all emotional reaction, finds new forms of stimuli and applies to objects of varied character.

The impulsion that accompanies curiosity is likewise definite and of the utmost interest in the development of man's intellectual life. While we are inclined to think of curiosity as the desire for knowledge for its own sake, this is but one aspect of the matter. The highest and the noblest form it may well be, but it is not the earliest. Practical interests precede theoretical ones and curiosity can subserve the former as well as the latter. Considered in this way curiosity should be regarded primarily as a tendency of the individual to utilize his cognitive powers, whatever they may be, as means of promoting his economic interests and general conditions of livelihood. Thus the bear when the time for hibernation arrives will investigate this cave, or this blow-down with a view to his immediate needs only. So, also, man is first interested in the practical aspect of nature. Canaan was described, it will be recalled, as a "land flowing with milk and honey." Man notes first those attributes of objects that will satisfy some felt need. And felt needs are always present, immediate ones. Create the need, and interest will then become acute and curiosity will follow with all the certainty of law and order in nature. A keen interest in the world, therefore, a vital compelling curiosity is the attribute of a quick, active, efficient mind.

The primary reaction to which curiosity leads is ap-

proach to the object exciting it and active handling and manipulation of the object where possible. The desire thus to touch or handle such objects is obvious to anyone interested enough to watch children or his fellow men inquiringly for a few minutes. I have at times at the entrance to the Museum of Natural History in New York noted how not only I, but dozens of others who pause to examine the meteorites placed there, will almost invariably put forth our hands to touch them. Whether this reaction is native or acquired is not now the matter that concerns us. If not native it is a habit that soon becomes fixed and creates a tendency nevertheless. So the boy, and the man too, must handle the gun he is examining. Because of the universality of this tendency, museums must have their exhibits carefully placed under glass. There is in humans everywhere toward objects that excite their curiosity an impulse to take them in their hands, to turn them this way and that, but unfortunately no corresponding impulsion to put them back in their proper place. Only strict and long continued practice can generate this habit and too often it is never attained.

As the mental life develops and new interests are acquired, new problems formulated, this impulse to investigate, to understand, keeps pace with the nature and extent of such development. The tendency to approach and to examine sensuously with physical manipulation as a step thereto, a tendency that is never lost, is supplemented by a desire to manipulate subjectively, that is, to understand. When this stage is reached, knowledge for its own sake becomes the immediate end, and theoretical interests, pure science, begin.

Curiosity is still useful even in regard to practical needs, but curiosity that is seeking for some universal abstract truth may in the end be far more fruitful than the form that has been effective through the ages. The great virtue of the emotional method of reaction is that

it can deal so effectively with this particular concrete situation: the great weakness is that it confines itself so exclusively to the present instance and does not look ahead for ulterior consequences. The emotional method of control must be supplemented if not supplanted by the method of intelligence. The assumption and the ideal of the cognitive life is generality, uniformity, order, system, fore-knowledge. Through an analysis of situations laws are established, causes are discovered, hidden forces are uncovered and thus made subservient to human control. But that this method will soon supplant completely the other method at present appears but a vain hope. The emotions are still too important to be extirpated from human nature. They are efficient but not sufficient; intelligence is sufficient in principle but not attainable, and moreover is often opposed by the tremendous impulsions that belong to other forms of the emotional consciousness.

One other aspect of the emotional consciousness we shall pause to note, an aspect that serves both to enrich man's affective life and better to adapt it to the complex experience of life to-day. The emotions are not so unitary in their nature that they appear only singly and in their typical forms. Shand and McDougall have called attention to the compounding of emotional factors and have thus discovered a principle of wide application and significance. Just as several muscles of the body may work together in happy coördination to produce reactions that no one of them alone could effect, so the primary emotions two or more can be called forth simultaneously to produce emotional reactions of complex impulsion. Thus situations may easily arise in which fear and anger, or fear and curiosity may be present and recognized in the total reaction. When curiosity is keen almost any object or situation, however terrifying it may be in itself, may awaken an intense desire to investigate and even to ex-

perience some of its effects. Most of our epics, for example, have these two motives running through them from beginning to end. They are designed to excite our interest by tales of strange and unusual happenings, and to arouse the fear response by dire peril to the characters whose fortunes we are following.

So also fear and anger are recognized to be closely akin in the stimuli that excite them. Restraint is the primary cause of anger, and threats and pain are designed to inhibit our actions. Situations that threaten us also limit our action as we so often find to our sorrow. It is not an easy question to decide, for example, whether the primary effect of a big navy or powerful armed forces is to make other nations wary of attacking the nation possessing them, or to stir up resentment that will lead to fighting in spite of certain defeat. Both effects almost inevitably follow, for they are both related to the objective situation in the most direct causal manner. Threats and bluster are no less effective as a stimulus for anger than as a stimulus to fear. Thus it is that both with man and the lower animals it is a narrow step from fear to anger. When escape is blocked, and danger still impends, the logical reaction is the most vigorous offense.

Some of these compound emotions that McDougall enumerates and their components are as follows:

Admiration	Wonder. Negative self feeling
Awe	Wonder. Negative self feeling Fear
Reverence	Awe Gratitude
Gratitude	Tender Emotion Negative self feeling
Scorn	Anger Disgust

Contempt	Anger, Disgust, Positive self feeling
Loathing	Fear, Disgust
Envy	Negative self feeling, Anger
Reproach	Love, Anger
Shame	Positive self feeling, Negative self feeling

This compounding of the emotions, however, is, after all, but a figure of speech. Fear and anger, or fear and curiosity do not unite. It is well to remember that there is no state of consciousness so individualistic, so self-contained as one of the primary emotions. It is the essence of any emotion to dominate for the time the reactions of the individual. The impulsion of fear and the impulsion of anger are diametrically opposed; the one is to avoid, the other is to attack. Rather the fact is that there are elements in situations, some that call forth one reaction and others that call forth another. The complexity is in the situations not in the emotions that in some way are compounded.

The attention shifts from one aspect of the complex situation to another. To illustrate: some years ago it was my good fortune to see in central Texas the incipient stages of a tornado. While out for a stroll the clouds began to roll up until the whole heavens were a caldron of upheaval, rolling, tossing, tumbling, coming from the four points of the compass. Such evidence of atmospheric turmoil I had never seen. As such an exhibition it excited my curiosity and intellectual interest, and I stood for some time fascinated by the display of one of nature's forces. But with my knowledge of the destructiveness of such cyclonic disturbances, together with the

fact that I was alone on the plain and with no refuge of any sort at hand, and with the ocular evidence of this titanic force, it was natural that I should be cognizant of the danger did the disturbance drop down to earth, as it did a few miles further on. Such facts attended to could scarcely do less than excite the fear response. Doubtless, also, there was present something of the feeling of helplessness, of "self-depreciation." Such exhibitions of uncontrollable energy do not conduce to self complacency, but for anyone who realizes the facts and the possibilities therein, there can scarcely come anything less than a feeling of inadequacy. This then was the feeling of awe.

Whether there was a simultaneous stimulation of these three emotional responses or whether now one, and now another came to the fore is not an easy question to decide. My own opinion is that this shifting of attention from one aspect of the situation to another was present and that it played an important part in the emotion that rose for the time being to dominance. While I was interested in the unusual display of atmospheric turmoil, I was certainly not fully conscious of fear, and when I began to think of possible consequences to me, my intellectual interest in the display probably was not so keen. The one aspect of the matter was well adapted to awaken curiosity or wonder; the other, supplemented by the knowledge of tornadoes at my disposal, would if present in consciousness, most naturally, not to say inevitably, awaken fear. The third factor, the feeling of self-depreciation and inadequacy, implies an implicit if not an explicit act of comparison in which my own powers were felt to be totally inadequate to oppose the forces of which I had such striking ocular evidence.

As attention shifted, as it did, from one aspect of the situation to the other, it was a perfectly normal result for this to register itself in a changed emotional response.

There remains, however, the "hangover," the organic effects which we know do not disappear for some considerable time after the emotion has begun to wane. Here there would seem to be in such cases as we have cited, some sort of combination.

The principle of conflicting impulsions is, as a matter of fact, present in almost every form of human experience and is therefore more typical than anomalous. In its last analysis it is only a more complex form of inhibition, one of the basic principles that underlie all forms of nervous control. Not to eat, when hunger impels and food is present, is no more and no less an example of two opposing tendencies than are the two tendencies of fear and anger, or fear and curiosity. In each instance we have an opposition of impulsions, a tendency to one group of activities opposed by a tendency to another group. Whether the one reaction or the other shall be the dominating one, depends not solely upon the strength of the stimulus, but upon the whole mental development of the individual, that is, upon past as well as upon present factors. With this underlying principle recognized we shall see in such combination of impulsions, or emotion, as it is usually expressed, only more comprehensive examples of the fact of "summation" and of "inhibitions," in the nervous system.

Such are some of the more obvious attributes of the emotions regarded as states of consciousness. When they are considered collectively or cumulatively, they are seen to determine both the strength and the weakness of such forms of reaction and of adjustment to this environment. Emotions with their pronounced impulsions come and go, rise and fall, enabling the organism to react to particular situations without real insight or reflection. In general the resources of the whole organism both physical and mental are enlisted to secure prompt and efficient action. But these same traits incapacitate the emotions from

being the best or final directing factors in the problem of adaptation and adjustment. The very laws of nature and of life itself demand foresight, fore-preparation if the best returns are to be secured. The seed time precedes by months and even years the harvest. And dangers arise even in the best regulated society while the very laws that yield rich returns in hundreds of cases may now and then under certain situations bring disasters and death. Thus when such occasions arise there is still a demand for an immediate and an appropriate response. But avoidance of danger through prevision is better than prompt reaction to dangers heedlessly encountered. Proper occasions for anger are still with us, but the way of peace is more effective than the way of unrestrained violence.

We turn next to the theories that have been proposed to account for this aspect of the mortal life. When all the facts are considered, will any one of the current theories suffice to account for and explain all the facts that must be harmonized and explained? Three of the leading theories may be examined with this inquiry in mind.

While the connection between the James-Lange theory of the emotions and Darwin's discussion of emotional expression may not have been explicit, there is a logical relation, nevertheless, if not a direct historical one. Darwin focussed attention upon the actual manifold bodily reactions involved in the various emotional experiences which is in effect exactly what the James-Lange theory also does. James and Lange did follow Darwin to the extent that they also laid stress primarily not on the subjective, conscious aspect of the emotions, but upon the objective, bodily activities involved, making them the real efficient cause of the conscious modifications on which introspective psychology naturally enough laid chief importance. According to this new theory, the conscious side of the emotions is but the sum total of sensation

resulting from the widespread somatic response to which the emotional stimulus gives rise directly. It is, as it were, the *feel* of the body as the organism responds in muscular and glandular activity to the external stimulus. The theory affects so profoundly not only the whole matter of psychological theory but what now is our immediate subject of discussion, human motives and human reactions, that though much discussed, we cannot pass the matter over without some few remarks. Furthermore, the theory shows such tenacity of life, and is still so widely accepted and rejected, that it is hardly possible either to accept it or reject it without giving reasons for so doing.

The James-Lange theory of the emotions is in outline fascinatingly simple and definite. According to this theory the emotions are psychologically of the same origin and nature as sensations; that is, they are due to incoming nerve currents from the various organs of the body, a complex of kinæsthetic and organic sensations chiefly. The activity of these organs is not the result of the emotional excitement, but arises directly through response to the objective stimulus, whatever that may be. The perception of a bear, for example, excites directly and immediately a series of bodily reactions, both muscular and glandular, and these reactions in turn give rise to a group of sensations which complex of sensations is the emotion. In this way, James brought the emotions under the category of afferent sensory reactions and so succeeded in eliminating any central factor, for which, he contended, he could find no introspective evidence either in the case of volition or the emotions. The theory is an interesting one and its final justification or rejection will go far toward the determination of psychological theory. From the character of the psychologists who uphold it and those who reject it, it seems that the time for hearing evidence is not yet passed.

The great fallacy and weakness in the James-Lange

theory we venture to assert is found just at the point wherein its originality lay, namely, in the fact that it does so minimize and discount the central factor. The fact that there is no introspective evidence for such a factor has nothing to do with the case. As a matter of fact, I have no such evidence that I even have a brain. If, as the theory holds, the emotion *is* the combined result of the various afferent sensory processes coming from the periphery, then there is in truth no use left for knowledge, or meaning, or for past experience of any kind, except as this has been effective in bringing about changes in the muscular and glandular systems. Cerebral processes are merely receptive and depend therefore upon the incoming stimuli to determine the character of the response.

To-day this theory has become more specific by investigation into the action of the autonomic nervous system. Consequently, the viscera have assumed a leading rôle in the determination of the constitution of the various emotions. The opposite reactions of the sympathetic system, and the cranio-sacral systems, serve as the basis for pleasantness and unpleasantness, and for various contrasted and even contradictory effects. It is rather a significant fact, however, that Sherrington and Cannon, the physiologists who have done so much to uncover these physiological data, do not accept either the James-Lange theory, nor the visceral hypothesis. A paragraph from Cannon we quote:

> This view that the differential features of emotions are not to be traced to the viscera is in accord with the experimental results of Sherrington who has demonstrated that emotional responses occur in dogs in which practically all the main viscera and the great bulk of skeletal muscle have been removed from subjection to, and from influence upon the brain by severance of the vagus nerves and the spinal cord. In these animals no alteration whatever was noticed in the occurrence under appropriate circumstances, of characteristic expressions of voice and features,

indicating anger, delight, or fear. The argument that these expressions may have been previously established by afferent impulses from excited viscera was met by noting that a puppy only nine weeks old also continued to exhibit the signs of emotional excitement after the brain was disconnected from all the body except the head and shoulders. Evidence from uniformity of visceral response and evidence from exclusion of viscera are harmonious, therefore, in minimizing visceral factors as the source of differences in emotional states.[5]

His statement on the James-Lange theory is as follows:

> We do not feel sorry because we cry, as James contended, but we cry because when we are sorry or overjoyed or violently angry or full of tender affection—when any one of these diverse emotional states is present—there are nervous discharges by sympathetic channels to various viscera, including the lachrymal glands.[6]

The visceral reaction patterns for the various emotions are now generally regarded as too similar in character, with too many identical reactions to serve as an adequate basis for distinguishing the one from the other. Fear and anger, for example, have quite a similar effect upon visceral activity, so that if these are the basic facts in the emotional activity they ought to be much more nearly identical as conscious states than they are. Failure to find in these visceral changes a sufficient basis for distinction, attention is to-day being more and more directed to the kinæsthetic factor from posture and actions in the musculature. While these are all doubtless present and are important and worthy of the most careful investigation, the mental factor, to which we have called attention above, is also present and no less worthy of recognition.

It is not our purpose to enter into a detailed argument upon this theory *pro* or *con*, but only to indicate some reasons for believing that the theory has certain inherent

[5] *Vid.* Sherrington, *Integrative Action of the Nervous System*, pp. 255ff., Cannon, *Bodily Changes in Pain, Hunger, Fear and Rage*, pp. 280-281. This whole chapter should be read in this connection.

[6] *Ibid.*, p. 280.

defects that will always prevent it from meeting the facts of emotional reactions in an adequate, suggestive and constructive way.[7]

As we see the matter, and looking at the emotions as one, but only one expression of the affective life, no amount of information concerning the bodily reactions, all of which we admit, can discount the fact that they do also have a profound effect upon the higher, central thought reactions as well. Before the James-Lange theory will work consistently and completely, thought must also be interpreted as the radical behaviorists interpret it, as essentially real or incipient action in the periphery not in the brain. This thought factor as we shall see plays a progressively greater and greater part not only in the affective reaction to art and to conduct, but even in the emotions themselves. It is upon the presence and the reality of this factor that we find the greatest objection to the James-Lange theory.

The cognitive element is, therefore, present in varying degrees, but is never wholly wanting, and at times is the real source of much that is truest and best in the affective response we make to a particular situation. In the case of a person looking at a painting, for example, or any other work of art, the proper emotional response is by no means a mere reflex response to the sensory stimulus, but depends upon the perception and appreciation of qualities and attributes that only a trained eye and brain can perceive. And even the most obvious sensory attributes have meaning and any real significance

[7] An interesting discussion of the James-Lange theory may be found in the following three articles:

Cannon, "The James-Lange Theory of Emotion: A Critical Examination and an Alternative Theory." *American Journal of Psychology,* 1927, 39, 106-124.

"Newman, Perkins, Wheeler, Cannon's Theory of Emotion; a Critique." *Psychological Review,* 1930, 37, 304-326.

Cannon, "Against the James-Lange and the Thalamic Theories of Emotion." *Psychological Review,* 1931, 38, 281-295.

only as they are interpreted in the light of previous experience and the associations then formed. The principal reason why so few appreciate art in an effective vital way is because they do not know enough about it to get its inner vital meaning. And even where there appears to be something approaching a reflex response, a very casual examination will reveal the fact that this also is dependent upon experience, experience not in an art gallery, it is true, but experience in life itself. While the intellectual factor in the case of the various emotions may not be so pronounced, it is present, nevertheless, and plays an important part in the content of every emotional experience. A bear loose may excite a fear of panic instantly, when a bear safely caged will leave us unmoved. A resounding whack on the shoulder may serve to awaken anger, or a feeling of delight, as we recognize an enemy or a long absent friend. But the difference in such cases is a difference cognitively apprehended and cognitively appreciated.

Another theory of the emotions that has for some years been prominently before the psychological world is that of Professor William McDougall—which we may call the "instinct" theory. First elaborated in his *Social Psychology,* and in fact made a cardinal point in his system, it had for a decade or more a wide acceptance. The recent criticism on the theory of instincts, while not sufficient, in the opinion of the writer, to do away completely with the concept, has served to weaken it as it was there formulated. The theory is that the emotions are the conscious, or subjective side of various instincts. Instincts, it will be remembered, were defined as "psychophysical" dispositions, and the emotions are the psychical aspect or phase of the matter. Thus fear is the subjective aspect of the instinct to escape, anger of pugnacity, pride of self-assertion, disgust of aversion, and so on through the list.

Now a proponent of this theory can point to an undeniable connection between these emotions and the physical activities that have long been regarded as instinctive. The impulsion of fear is to escape, of anger aggressive action, of pride to display one's powers, and of disgust to avoid contact with its objects. But even if we take his longer list as formulated in his later book, the *Outline of Psychology,* the theory hardly covers the field successfully, as several of his critics have not failed to point out. For while there are certain emotions that do seem to have this organic connection with certain instincts, there are others that do not. And any theory to be satisfactory must both recognize and explain, not merely some of the facts, but all of them. The principal objection to McDougall's theory is that it is thus too limited in its scope to cover all the facts that are before us. Sorrow, joy, excitement, surprise, and many others, which seem to belong to this class of phenomena known as emotion, have no instinct to which they can be said to belong. The close correlation between the emotions and the bodily reactions, such as we find in the case of fear and anger, for example, can be interpreted better as a specific fact, therefore, than as a principle of explanation for all of the emotions. This fact of connection, we recognize, and we regard it as significant, but not in the way that McDougall's theory states it.

There is a third theory of the emotions, which because of the popular interest it has aroused, if not for its psychological adequacy, is worthy of some notice. Because of its original and novel character, it has served to turn thought into new channels and has given us some new terms for our psychological vocabulary. Whether its real importance is commensurate with this popular interest, and whether it can be made to serve as a principle of explanation for the affective consciousness in general, are the questions that interest us here. If a name were

desired for Freud's remarkable theory, we might well call it the "complex" theory.

The theory arose, it will be recalled, in connection with Freud's study of cases of obsessions, morbid and abnormal emotional conditions for which the patient could give no satisfactory explanation. Believing that these conditions were due to some concrete experiences now forgotten, he first used hypnosis as a means to enable the patient to recall what could not be brought back to consciousness in normal waking life. He found, however, that by means of persistent and searching questions hypnosis was not essential for such recall. Thus arose that skillful method of mental diagnosis that has come to be known as psychoanalysis. Psychoanalysis in itself is a method of procedure, not a theory. It does, however, presuppose a very definite theory of the emotional life. And it is of interest to us to ascertain whether this should be limited to these abnormal cases or whether it can be applied to the emotional life in general.

The development of Freud's theory is so recent and in general so well known that we may content ourselves with the barest outline. The underlying principle of his emotional theory is that of the "complex." Now a complex is the result of some repressed or unfulfilled desire. Since the fundamental principle of the nervous activity is the "reflex arc," consisting of an incoming nervous impulse, passage through a nerve center, and an outgoing impulse leading to certain motor and glandular responses, any interruption of the full sequence of events may prove to have very definite and even serious consequences in the mental life of the individual concerned. Such impulses meeting as they sometimes do certain inhibitions do not meekly fade away, but give rise to a series of consequences that are not only unusual, but are productive of certain disorders in the mental life. In other words, a complex is thus originated. The normal

manifestation of an emotional reaction is stimulus, emotional excitement, expression. To inhibit the normal expression is to interfere with an order that is natural, satisfying and complete.

But what, it may well be asked, are the forces that lead to this suppression of emotional excitement? Here his theory takes the rather fantastic form of personifying the inhibitory forces of life and calling them the "Censor." There is little difficulty, however, in converting this figurative term into definite psychological factors. The "Censor" consists, in fact, of all those personal and social inhibitions that serve to restrain open and full expressions of our primitive instincts and desires.

To fight for what we want, to vent our ill will upon any object that resists or restrains us, to run from objects that we fear, to investigate objects that interest us, these are the natural, the satisfying things to do. But parents and society say, "No," that is not right, or that is unsocial, that is not gentlemanly. In one form or another, the activity is frowned upon, disapproved, and thus is inhibited from full and free expression.

To satisfy our sexual impulse when it is excited is as natural as it is to eat when one is hungry. It is the end toward which the impulse leads. But again society openly and forcefully discourages such expression with its strongest inhibition and disapproval. Not only is shame made to center upon the subject of sex relationships, but infractions are penalized as a form of criminal action. And so complexes of various forms are begun.

It is evident that Freud has thus put a most potent weapon in the hands of youth, a weapon that can be used to justify to almost any degree, this primal demand for freedom, for indulgence and even for license. To resist the impulses of a child, or of youth, for some objects that they chance to desire is like introducing poison into their

mental organism, for, as we have said, when desires are thus repressed and denied their natural expression, they do not meekly succumb and fade away into innocuous oblivion. Rather they live on, and gather to themselves seven other devils to play havoc with the inner machinery of the emotional life. Denied their natural expression, they may be sublimated occasionally and given expression in more ideal ways, or they may just as readily attempt to circumvent the Censor and find expression in some other channel, or worse still, may develop into some morbid, abnormal, emotional obsession.

It is one of the weaknesses of Freud's theory, and a very obvious manifestation of lack of balance, that he traces all sorts of emotional reactions to the sexual life. In so doing, some of his interpretations are almost as fantastic and as extreme as can be found in phrenology or palmistry. All of this, however, need not blind us to a certain measure of significant truth for which he deserves full credit.

The logical weaknesses of such a theory, however, are so numerous that the theory, as a theory of the emotions in general, is vulnerable at many points. The fact that an obsession or morbid fear may be due to some experience long forgotten is not sufficient in itself to supplant the fact that objects now present and in the light of full consciousness may also elicit fear of a very pronounced type. In fact, the morbid fear itself depends upon the forgotten awakening of some conscious fear itself, and must be regarded, therefore, as a secondary, not a primary fact. Furthermore, this theory arose in his investigation of abnormal cases and the implication is that they are exceptional, not examples of the general rule. The fallacy here involved of passing from a special case to a universal principle is an old, but by no means an antiquated one.

The logical cogency of so reasoning is exactly equiva-

lent to the paralogism that because yellow fever does unquestionably cause death, therefore, all deaths are due to yellow fever. To infer that because a "complex" may be the cause of an emotion, therefore, all emotions are due to complexes, is a conclusion that possesses no logical force when once its character is made clear. Emotional reactions are made not to some one, but to many situations. Freud's theory is valuable and doubtless true when the specific conditions that he suggests are met; but such conditions are not common or typical and certainly not universal. A satisfactory theory of the emotions, therefore, can hardly be built upon the facts that he has discovered.

What, then, shall we conclude as to the nature of these intense, dramatic, impellant forms of consciousness as found in the various emotions? It will serve, I believe, to unify the problem and to give us a valuable clue as to their nature and functions to regard them as modifications of the affective consciousness that have been differentiated, developed and fixed as permanent attributes of mental and bodily reactions in connection with various important and oft-repeated experiences of the species, that is, of its individual members. They have served and continue to serve the purposes of adjustment and of adaptation just as certainly, just as obviously as do the cognitive processes of perception, memory, imagination and the like. They have become established, incorporated, universal in the species in the same way that other bodily or mental traits have become so established. (What the method has been, I must confess I do not know.) This has been called the emergency theory of the emotions, and I have no objection to the name provided the term be made so inclusive that it be not confined to what should properly be called emergencies. The emotions are adaptive doubtless, but not all of them show that special intensity like fear and anger that indicates

some critical situation to be dealt with promptly and energetically.

Let us rather regard them as a comprehensive expression of the affective consciousness each adapted to its own specific stimuli just as hands and lungs and teeth or the various sense organs are adapted both to the stimuli and to certain needs of the organism. As we have shown, with new organs, new powers of perception, some new modification of the affective consciousness was demanded and the emotions as we find them are the result of this creative development. Under this theory there is room and even necessity for adaptation and utility, two common-sense and scientific demands that we may well regard as essential for any satisfactory hypothesis. Each emotion then in its own way, and each with an intelligible relationship between its conscious attributes and the bodily reactions, each as occasion demanded, developed the degree of impulsion proper to the situation, and each therefore leads to actions that are broadly adaptive, but each manifests also something of the affective character that gives value to experience.

We close the chapter with a paragraph from Shand that supports our main contention:

> The emotions then are forces; they work in certain ways and in certain directions. They are within us to perform certain functions; though they often exceed their functions and are imperfect instruments, they need and in man they acquire, higher systems to control them; but they are essentially organized forces, and as such we shall define them.[*]

REFERENCES

Shand. *The Foundations of Character.*
James. *Principles of Psychology,* Vol. II, Chapter XXV.
Feeling and Emotions, The Wittenberg Symposium.
Watson. *Psychology from the Standpoint of a Behaviorist.*
—— *Behaviorism,* Chapters XII, VIII.

[*] *The Foundations of Character,* p. 179.

McDougall. *Social Psychology,* Chapters III, IV, V, VI.
—— *Outlines of Psychology,* Chapters XI, XII, XIII.
Pillsbury. *Attention.*
Dashiell. "Are There Any Native Emotions," *Psychological Review,* Vol. 35, No. 4.
Marston. "Primary Emotions," *Psychological Review,* Vol. 34, No. 5.
Stratton. "The Function of Emotion as Shown Particularly in Excitement," *Psychological Review,* Vol. 35, No. 5.
Wechsler. "What Constitutes an Emotion," *Psychological Review,* Vol. 32, No. 3.
Freud. *A General Introduction to Psychoanalysis.*
Ladd and Woodworth. *Elements of Physiological Psychology,* Chapter VIII.
Cannon. *Bodily Changes in Pain, Hunger, Fear and Rage.*
Sherrington. *The Integrative Action of the Nervous System.*
Crile. *Origin and Nature of the Emotions.*
Garrett. *Great Experiments in Psychology,* Chapter X.

PROBLEMS FOR FURTHER STUDY

1. Why is the problem involved in the James-Lange theory so persistent and so interminable? Is it a question of fact, or a point of view?
2. What are the limitations in Freud's theory that make it inapplicable for a theory of the emotions in general?
3. If McDougall's contention that the emotions are one phase of instincts is given up, how shall the connection between this conscious phase and their modes of expression be explained?
4. Make out a list of the emotions in the chronological order of their development with reasons for the position taken!
5. What can be said *pro* and *con* of the combination of primary emotions to form more complex ones?
6. How far should humor be classed with the more intellectual emotions? How does it compare in this respect with fear and anger?
7. Enumerate the leading theories of humor and laughter, and develop an argument for the thesis that laughter is primarily a "social lubricant."
8. How shall the varying degrees of impulsion that go with the different emotions be explained?

CHAPTER VIII

THE FUNCTION OF THE EMOTIONS [1]

In all discussions of human behavior to-day, under the dominance of the physiological principle of explanation, the matter of the exciting stimulus plays a major part. While this is true in general, I believe that the matter of the stimuli that excite the emotions has not received the requisite attention for the formulation of a satisfactory theory. The James-Lange theory, for example, is based upon the assumption that the proper stimulus for the emotions is some object, a bear, or storm, or sound that excites directly the bodily response. While such objects, given the requisite amount of experience, do function in this way, there are at least two other major forms of emotional stimulation to which this theory scarcely does justice. Not only are the emotions excited by objects and by situations, but there is also what we may call the sympathetic form of inducing such excitement, and a third form, probably confined to man, that we may call the subjective mode, consisting of excitement through mental imagery and ideas. Let us consider briefly each of these three forms.

Whether there are any objects that have power in themselves independent of all experience to awaken emotions is considered to-day doubtful. When search is made for the natural, original excitant of fear, or anger, or laughter, or curiosity, the results are not convincing. Probably experience enters in all cases to intensify if it

[1] This chapter with only minor changes appeared in the *Psychological Review*, Vol. 33, No. 1.

does not create the result. Darkness, which later is such a stimulus to fear, is not feared by the infant; neither are animals or strangers in the early months. But objects do possess or acquire emotional significance so that their near presence excites, as it were reflexly, the bodily reactions which characterize that particular emotion. It should be noted however that just to the degree in which experience enters into the matter, just so far do cognitive factors play a part. So far as being emotional stimuli is concerned, objects do not remain always the same. A bear is not always a bear, a mouse is not always a mouse, but with increased experience they may acquire, or change, or lose their emotional significance. An object is no more emotionally static than it is conceptually. Now it was for excitants of this type and for this type alone that James's theory was meant to apply. Whereas it is doubtful whether this is even the original, primary form of emotional stimulation. For this honor the second form mentioned above could lay claims with some very good arguments in its favor. As a matter of fact we find numerous cases of emotional excitement where knowledge of consequences, if present at all, is miraculous —not experiential. Perhaps an appeal to this second form of stimulation would help to solve some of these that otherwise appear so baffling.

The sympathetic induction of the emotions by the perception, not of its objective cause, but by the perception of emotional excitement in others, is common both to man and to the lower animals. Its importance in explaining the genesis and development of the emotional nature has never been fully appreciated. In some of its forms it has long been recognized even though it played but little part in psychological theory. A dog, for example, will respond at once to the play attitude in other dogs or even in his human associates. There is little difficulty, as every owner of a dog knows, to get him

excited merely by some show of excitement in one's own actions. So also a dog approaching two other dogs fighting responds at once by taking an attitude of potential belligerency. In such cases this emotional excitement is purely sympathetic, that is, independent of the object or situation that would normally give rise to the excitement. It is a commonplace that among certain animals, man included, fear may spread like wildfire, although not one in a hundred may have seen the original cause of the alarm. In all gregarious animals susceptibility to this form of emotional stimulation is especially pronounced.

That the same form of stimulation plays an important part in the emotional development of the individual is a well-founded conclusion. The child's first smile and first laugh are almost invariably excited by the smile or laugh of the mother or nurse, not by the perception of something pleasing or ludicrous. From this beginning up to the moral and social approvals and disapprovals, the real original stimulus is not the objective situation but the emotional expression upon the part of his elders. The objects and situations to which these emotions will later become attached determine the social status and the character to which the individual has attained. So, also, in the lower animals, while here the instinctive and reflex factors are more in evidence, the response to emotional expression in other members of the species is unmistakably present. So far as experience counts for anything, the best way for a chicken to acquire the wisdom of his race, is to act as he sees other chickens acting. And what is true of this one species is true of all the lower forms, and this method is not and cannot be dispensed with, even with the human species.

Nor is the utility of such form of emotional stimulation difficult to see; this sympathetic spread of the emotions is a substitute, and in many cases an excellent one, for the more difficult communication of facts and ideas

through language. It promotes coöperation through direct emotional unification of the group, gives to each member of the group the advantage of any individual perception of danger, and through this unification serves as the real basis for common social action.

That this form of emotional stimulation carries over into the human sphere is only too obvious. It forms, indeed, the basis for that interesting and important phase of human activity known as crowd psychology. Human beings like the lower animals may get angry, may be thrown into the most intense and senseless expressions of fear by merely perceiving the expressions of these emotions in others. Curiosity also is infectious as every successful teacher knows, and laughter and a feeling of amusement are heightened by the presence of others showing the same tension. The audience in the theater intensifies the effect of the actors. The show of anger, or fear, or sorrow, or amusement, or the demand for vengeance by any considerable number of individuals is an emotional stimulus too strong to be successfully resisted by the average unsophisticated individual. To account for the force and directness of this form of emotional stimuli, McDougall suggests that there is a special inlet to each instinct for this form of stimulus. Whether or not this is the correct explanation, the fact of its potency can hardly be disputed.

This form of emotional stimulation in man has both the strength and the weakness of such stimulation in the lower animals. It is direct, powerful, and waits not on knowledge, which in emergencies is the part of wisdom and safety. To insist on becoming acquainted first hand with the source of the danger before it is feared might well increase the casualties of life to an appalling degree. To refuse to get incensed until we are personally insulted or injured, is to do away with the very foundation of social or group action. To allow curiosity to lie dormant

until practical advantages are assured, is to remain to all new enterprises and innovations unresponsive and inert. To enter into emotional experiences as deeply alone as when we are with others, is to be dead to the call for companionship and for united effort. This means for stimulating the emotions, therefore, still has its uses and is still one of the major methods of awakening man to intense emotional reactions.

This sympathetic induction of the emotions, on the other hand, has the same logical weakness as have other forms of custom control. It shows the same blindness, the same unprogressiveness, the same tendency to believe in and be satisfied with the present, the same indifference to the real causal factors, the same dependence upon emotionalism, the same lack of intelligent insight that is characteristic of all custom control. To allow oneself to be excited merely because one's associates are, to fear only because others fear, or to be angry because others are enraged, may sometimes be the part of wisdom, but it may also at times be the part of supreme folly. Whether I am justified in my anger, or fear, or enthusiasm, depends not upon its presence or intensity in others, nor upon how many times it has been thus passed from one individual to another, but upon the original cause or situation. The fact that an emotion has been thus passed on from one individual to another a thousand times can never serve to purify or to justify what was originally absurd, or irrational, or extreme. The fact that it has been thus passed on directly and unpurified means rather that the original weakness or viciousness remains and is intensified and multiplied by this rapid means of propagation. Crowds, therefore, are often capable of actions more extreme, more irrational, more immoral than are the acts of men in their individual capacity. Let the fires of any emotion be fanned by strong emotional expression in others, and this community of feeling is often mistaken

for logical justification, and mere intensity for moral justification. Of the extremes to which such influences may lead, social psychologies give ample illustrations.

But we are interested here primarily not in the actions to which such emotional contagion may lead, but in the fact that we have here one of the principal forms of emotional stimulation. Considered either as a factor in the emotional life of people to-day, or traced back to its earlier manifestations, it has an equal right with the objective form to be regarded as basic. A psychological theory of the emotions to be satisfactory therefore must do justice to this form of excitation no less than to the latter type.

But our enumeration of data concerning the stimulation of the emotions is still incomplete so far as human beings are concerned. The other group of facts that must be recognized and given its place in our theory relates to what we have called the subjective excitement of the emotional consciousness. This class of stimuli has been strangely neglected by psychologists. Perhaps if it had been considered in discussions of the emotions, the theories we have had would not have been so inadequate. Ideas, concepts, images become saturated with an emotional content no less than do objects. As a consequence, the presence in the mind of such ideas is followed with an emotional accompaniment no less directly, and sometimes no less potently, than follows the perception of the objects themselves. Emotions may be excited by all forms of presentative experience, but they are also aroused by the various forms of representation. It would be difficult to find any one of the principal emotions to which man is subject that cannot be aroused as effectively by ideas as by objects. Memory not only brings back the bare facts of life, but it enables us to live again its joys and its tragedies, its victories and its defeats. In other words, its magic is no more cognitive than it is emotional. To

recall scenes of childhood, the old swimming-hole, or the old oaken bucket, or the image of a face that is gone, or the sound of a voice that is still—who would say that these are exclusively or even primarily cognitive acts?

But it is in the imagination that we seem to find the principal agency for the reawakening of the emotional reactions. Less than human and inert, indeed, is that mind that cannot through the imagination transform some innocuous incident into an insult, and thus give rise to burning anger. And how often is some mere incident, some slight noise when the nerves are tense, transformed into a dire peril, and appalling fear results! Or who would care to assert that the greater share of the emotions that the lover feels comes from the perception of the maiden, and not from the visions and the dreams and the imagery that he sees best when he is alone? Real wrongs are a potent cause of anger, but fancied ones are hardly less common or less potent. Again, it is not adulation or success or honors alone that engenders pride and inordinate conceit; it is thinking about them, reflecting upon them, playing with the thought of one's greatness that chiefly causes its over-development. One of the proudest men I have ever known was a half-wit whose chief cause for pride was the fact that he could live for half of the time on his own resources outside of the county farm. Thought, playing around even the most trivial object or circumstance, can do wonders in magnifying it into a first-magnitude emotional stimulus.

It is not necessary to refer to cases of morbid sentimentality to illustrate the emotional effect of ideas and mental imagery. Illustrations and examples are at hand in every direction. In fact, every idea that has any significant history or content acquires not only a conceptual connotation or meaning but an emotional one as well. In many cases, and for some purposes, not the conceptual but the emotional is of greater moment and importance

in the life of the individual. The two phases of this content of ideas can no more be separated and kept distinct than they can in our dealing with objects first hand. If either has primacy back in the earlier stages, it would seem to be the emotional, not the conceptual. Especially is this true of the signs used by the lower animals. Danger signals are here one of the most common forms of communication and these are plainly far more emotional signs than they are descriptive symbols. The cluck of the hen will send her brood scurrying to cover, although so far as can be seen she gives them no clue as to just what the danger is. Or another call of a little different quality means food, but the menu she never announces. In the long ages of mental development emotional reactions long served the purposes of life before knowledge based on experience could have pointed out the way.

But as the child with his greater capacity to absorb experience and to understand it grows, this development is both conceptual and emotional. Not a few of the terms of childhood are more definitely emotional than conceptual. "Bugaboo," "hobgoblin," "bugbear," "hoo-doo," for example, have no clear conceptual content, but they do stand for something to be feared. I am sure that for years during my childhood "mad-dog" was not primarily a case of hydrophobia, so much as it was an awful terror lurking in divers places and waiting only to communicate to me that dreaded disease. And in maturity we have a long list of terms whose real significance is as much emotional as it is conceptual. Such, for example, are the terms "mother," "home," "country," "traitor," "liar," and the like. To say that the significance of these terms is wholly conceptual is simply defective analysis, and to ignore their rich emotional content is to fail to consider one of the important forms of emotional stimulation. When we consider what a small part this factor has played in psychological discussion of the emotions, it

is little wonder that psychological theories sometimes seem so aloof from life, the actual, pulsating life that men really live and are interested in. Language, therefore, we conclude, begun probably as mere emotional symbols, has never lost this character or function. But just as there is a gradual and constant enrichment of our vocabulary conceptually, so is there with many of our terms a similar growth in their emotional significance. The net result of this enrichment is that language, and the imagery it implies, becomes a marvelous instrument not only for the communication of ideas but also for the orderly and systematic stimulation of the emotional consciousness.

There is one further point to be considered before we pass on to notice the significance of these facts for a theory of the affective consciousness. This point relates to the method by which ideas thus excite the mind to an emotional reaction. Does the stimulus of a given concept act directly by means of its emotional associations, so to speak, or indirectly through the stimulation of the imagination? The correct answer would seem to be that it operates in both ways, although the latter method is by far the more important. Some terms, as we have seen, acquire a pronounced emotional character and something of this is sure to come to consciousness whenever the mind dwells upon them for many moments. Thus the term "Liberty," for example, is something far more, and richer, than its deepest conceptual content will explain. Dwelt upon, it brings also a rich halo of feeling, the emotional residue of past experience of a pronounced affective character. Such terms, it is evident, depend for their emotional effectiveness upon the associations they may have acquired in the experience of the individual. But these associations are both conceptual and emotional in their content. As a consequence of this accretion of meaning and of feeling, language will show variations in emo-

tional poignancy upon different individuals. Language is only symbolic and the reaction depends chiefly upon the subjective reaction. But such terms do have direct emotional associations.

The other means of exciting the emotions which language possesses, namely, through its symbolic representation of objects and situations and the consequent activity of the imagination, is the chief source of the emotional power of language. "War" has for those who were in the trenches a definite content, but it has also its horror. But war in the abstract is one thing, while "Our country has declared war" is quite another. Through this descriptive power of language, situations and events can be so symbolically expressed that the imagination pictures them as hardly less than real. Mark Antony's oration over Cæsar may be cited as a classic example of the power of language to excite the passions of men and to lead them on to action even of the most violent nature. But why mention any one case when every drama, every novel, every oration of consequence derives its power and chief function from this primary fact. In these forms language, just because it can thus excite and control the emotions of men as well as guide their thoughts, is the medium for one of the most common and most powerful of the arts.

Language is thus a remarkably effective substitute for experience, but the substitute approaches the reality in emotional effectiveness in proportion as the imagination responds and vitalizes and vivifies the schematic outline that the words at best only suggest. To have a keen, active, vivid, imagination is to have a strongly emotional nature; to have a weak, sluggish, meager capacity for visualizing the ideas language gives, to be engrossed too much with their meaning or philosophical significance, is to be emotionally unresponsive. To be emotional, therefore, is to be imaginative. The two terms are practically

synonymous. Just how far language will be effective as an emotional stimulus, therefore, depends primarily and chiefly upon the imaginative response of the listener. Moving pictures are the mechanical substitute for this subjective response, and their power and effectiveness testify to the truth of our contention.

The reason why the emotional reaction to language is so closely related to imagination is fairly clear. Imagination is the power to represent, or to picture in consciousness the concrete realities of life, both objects and situations. In this process, therefore, we come nearest in representation to the actual first-hand experiences of life. It is, so far as details are concerned and so far as sensuous factors can be made to reappear, the mind's best substitute for life itself. Abstract conceptual thought may see further and deeper into the secrets of nature, but thought is an abstraction and so is inattentive to many of the concrete facts of experience. Moreover imagination, because it can be productive as well as merely reproductive, opens the way for situations that are contingent and ideal, not always actual and real. In this way the emotions not only gain in purity and ideality but by either a proper or improper supplementation gain appreciably, sometimes excessively, in intensity.

Let us see now whether there are any suggestions in the facts to which we have called attention for a psychological theory of the affective consciousness.

We note, in the first place, that the facts given are not on the whole favorable to the James-Lange theory. At its best the theory covers only a limited portion of the data that should by rights be considered. The stimulation of the emotions by objects and objective situations is only a part of the story. Central factors apparently do play a part in the matter. Furthermore, to make the emotions epiphenomenal in character and futile is something out of harmony with the universal

connection that seems to obtain between feeling and action. While some have agreed to disregard consciousness altogether in their explanations, the experiment is a good deal like tying a man's hands and feet and urging him to swim; he may succeed but it is idle to say that he is not handicapped by the treatment. Nor is the fact that as yet we are unable to explain the process by which consciousness can effect bodily control, fatal to the conclusion that it actually does so. Upon this basis we would have to deny the efficiency of gravity, of chemical affinity, and any number of physical forces that are accepted in good faith by scientists everywhere. Better will it be, therefore, if the facts seem to warrant the conclusion, frankly to accept the theory of the utility of consciousness, admitting ignorance where we must, and try as best we can to find a theory that will meet satisfactorily the conditions as they exist.

The principle of utility or adaptation in biology has since Darwin, and even back to Aristotle, been regarded as a basic principle of interpretation, and has abundantly justified its use in this direction. In fact it is difficult to conceive of the confusion and disaster that would come to this science were this principle to be disavowed. But if its use is justified in that science in regard to both structure and function, it is difficult to see how or why it should be excluded in this closely allied sister science.

The second class of emotional stimuli to which we have directed attention, direct emotional infection, is also illumined and given meaning by this same principle of interpretation. Here also the fact of utility is too obvious to be overlooked by the unbiased observer. To enter into the emotional excitement of other members of the species even when the originating cause of the excitement is not perceived or known is a principle of daily utility to thousands of forms of animal life. The animal of purely individualistic traits may, through

sharper wits and keener sensibilities, manage to survive and prosper. But to utilize the reactions of others and not to wait to perceive the source of the danger is for animals with limited means of defense a protective device of a high order. Moreover, it is difficult to see how upon any other basis than this of direct communication of emotion, group action of any sort could have been possible where language did not exist. A consideration of the action of a herd of cattle or of McMillan's musk oxen in time of danger and of attack will justify this conclusion. If social or group action and united effort is at times desirable, if social development is, in fact, one of the great lines of evolutionary development, if sympathy and helpfulness are really virtues, then this direct communication of emotion is a form of emotional stimulation that bears rich fruit in the practical everyday business of life.

Our first comment upon the third group of facts given, the excitement of the emotions through the medium of ideas and of imagery and of thought, is that whatever may have been the function of feeling in the lower orders and stages of life, it was too important to be left behind as higher powers of cognition develop. The fact seems to be that in every stage of mental development, from the lowest to the highest, there has been the closest correlation and interdependence between the cognitive and the affective consciousness. True enough the affective element in the higher reaches of thought does not have the same drive and impulsion that it has in the lower. But the crises in the thought realm hardly bear so directly upon survival and immediate well-being as do objective situations. The appreciation of beauty, however, the desire for logical unity and congruity, is with some a desire strong enough to have borne some very choice fruit in the realms both of science and of art.

A conclusion impressed upon us throughout the dis-

cussion is *the unity of function of knowledge and of feeling*. They are true supplements of each other, so that they are useless each without the other. When desire fails, knowledge is impotent to secure consistent and persistent action. Knowledge, in order to increase, needs the spur of curiosity, interest, to arouse to effort and even to attention. Keeping young—and youth means action, striving, doing—is a matter of keeping the emotions and the desires of youth. The relation between these two aspects of consciousness is constant, unvarying, because it is organic, constitutional. Whatever therefore may be the ultimate function of knowledge, that also is the ultimate function of the affective consciousness. If it be true that sensation, perception, memory, imagination, judgment, and reasoning play a real active part in the business of life, so also do pain and pleasure, anger, fear, curiosity, as well as the higher ethical and æsthetic forms of feeling. Every one of these cognitive processes has its affective component. And what is thus invariably and consistently present, is causally and organically bound up with the functional activity of that which it so faithfully attends. Emotions are excited, as we have shown, through the same system of sensibilities or through the same representative functions of the mind that are employed in all forms of cognition. The organic relationship between these two forms of consciousness accepted as a fact helps us to understand their Siamese indivisibility, and it serves in turn as a basis for a new inference or conclusion.

Now it is customary in these pragmatic days to say that all knowledge is for the sake of action. If so, and if our previous conclusion is a valid inference from the facts, then the emotions exist also for the sake of action. In some way, whether psychologists can give the *modus operandi* or not, the emotional consciousness does play a part in determining conduct.

And yet, while it is true as we have asserted that the ultimate end of the cognitive and affective consciousness is the same, nevertheless they must each have their own specific function, else there would be no purpose for their differentiation. It is more particularly this specific function that is sought by those interested to understand the psychology of this aspect of the conscious life. Let us see whether we can find any suggestions in this direction that not only accord with, but will serve to interpret the facts before us.

There is in mere knowledge a weakness, a defect, noted long before the days of pragmatism and behaviorism, but which these two movements have served further to emphasize. Knowledge for knowledge's sake is an ideal as pure and as impotent objectively as Berkeleyanism. The only Truth that can make us free is truth that is put into action. Knowledge as knowledge is subjective, contemplative, inert. What is needed for the practical life is some way of transforming this into action.

This defect of knowledge is remedied through the affective consciousness. It is redeemed from its subjectivity, its epiphenomenal character, by the dynamic of its feeling component. There is in all emotion a drive toward objectivity such as is not found in knowledge *per se*. Neutral sensations, if there are any such things, leave us passive, unmoved, but the emotions are an inward impulse to action and to objective expression. The subjective, Platonic ideal of philosophical reflection as an ideal is defective, incomplete unless supplemented by the romantic ideal of feeling and of action. Neither aspect of the conscious life is able to stand alone. The emotions must be purified, harmonized, shown the better way by thought, and the idea must be quickened, vitalized, given a drive toward objectivity by the emotions. Otherwise it fails to connect up with life and is open to the charges and criticisms that have been leveled against the various

forms of subjectivism. It would not be far from the truth, therefore, to say that the function of the affective consciousness is that it serves as a means of raising the cognitive consciousness to a working potential. Information that such and such consequences follow such and such conditions may be practical, useful knowledge or it may be nothing more than a state of subjective certainty. Whether it will be the one or the other depends upon the presence or absence of an emotional accompaniment.

When it is realized, moreover, that the emotions are characterized by a drive toward objective expression, and that the body is the instrument through which mental states must be objectified, it is not surprising to find the most intimate and thoroughgoing relationship between the emotions and the bodily organism. And this is, as a matter of fact, the sum and substance of no small part of recent investigations of the emotions. In order that the emotions may find the proper means of expression in action, the whole body must enlist for service. And this is the condition actually found. Not only the musculature but the various systems—the circulatory, the respiratory, and the various glands of the body all are involved—all contribute. Darwin was on the right track, therefore, when he looked for and found utility in the various forms of emotional expression. Not only do the emotions find expression in bodily action, but it is of their essence so to do.

In this respect there is a striking contrast between the affective and the cognitive consciousness. A strong emotion reverberates through the whole bodily organism and is characterized by an unmistakable impulse to action. Knowledge, on the other hand, that is free from this affective factor too often leaves the body impassive. Knowledge as mere knowledge needs little in the way of motor expression, or if it is urgent that it be expressed in action, this result is obtained by an increase in the emotional

potential. So far as we know at present, the bodily correlate to cognition is confined largely to the higher association centers of the cerebrum and does not pass over automatically to the centers of motor control. But knowledge, to be objectified or utilized, does demand this further motor excitement. A mere belief that a new world existed beyond the western seas might have existed in the brains of many of Columbus' contemporaries without producing results in the objective world of affairs. But in the mind of Columbus this belief assumed a strong emotional component in the form of conviction and a desire to discover this world or way. In this form it could not remain a simple belief, but must find expression in action, enlisting for this purpose the full resources of mind and body. Even the most positive knowledge unless fired with emotion leaves the individual strangely unresponsive and inert. Thus it is possible to point to a considerable body of physical modifications as characteristic of the various emotions, but to do the same for various forms of cognition is a task that has never even been attempted. Knowledge becomes practically efficient, a power in the lives of men, only as it assumes the drive, the inward push toward expression that is the affective consciousness.

The means by which matters of simple apprehension or of a more abstract conceptual content are transposed into objective realities is through a preferential rating in consciousness. Some acts and ends are felt as desirable, some as undesirable; that is to say, some have this inward urge toward realization or continuation; some have just as definite a drive in the opposite direction. In the earlier stages of mental life this must have been confined to the mere pleasantness or unpleasantness of stimuli. But pleasantness is equivalent to, if not synonymous with the fiat, "Let it be," and painfulness to the fiat, "Let it cease." One is constitutionally and inherently promotive, the other inhibitive. Pain and pleasure, therefore, are

the first criteria of value, the one urging toward avoidance of the stimuli, the other toward its continuation.

But it may be asked, what need of this mediation of consciousness? Why not the simple fixation of stimulus and response such as we have in simple reflexes? The obvious answer is that in a complex environment where stimuli are multitudinous in number, variety, and intensity, such a complex of reflexes, all adapted to a common end, the welfare of the individual, is too great a complication even for the profoundly intricate nervous system. Pain and pleasure are a means of simplification of integration of reactions that can be and have been utilized throughout the whole course of evolutionary development.

Simple sensations, however, with their attributes of pleasantness and unpleasantness, while primary and of such importance that their utility has never been outgrown, do not suffice to meet the conditions of higher forms of cognition. Certain stimuli remain either pleasant or painful, but as the mind develops the capacity to react not merely to stimuli but to *objects* and to *situations,* such simple affective machinery would not suffice. The apprehension of objects is a new condition and demands new measures. It marks, in fact, a tremendous cognitive advance and demands an epoch-making modification of the affective component of consciousness. Objects cannot be evaluated by the simple sensations to which they give rise. Dangerous objects are not always sensuously irritating nor are all pleasant stimuli indicative of wholesome objects. But even to wait here for experience to testify in the matter would be too costly. In many cases the first experience would prove fatal and the lesson would be lost. With such a method the percentage of casualties would be so high that it would tax even Nature's generous system of reproduction. To meet this situation, therefore, some new method of evaluation was imperative.

It was at this stage of cognitive development in all probability that the emotions had their origin. Fear, for example, can be aroused when there is nothing painful or irritating in the stimuli exciting it. Such in the great majority of cases is probably the case. The breaking of a twig, the odor of a man, or the sight of a wolf are hardly directly painful to a deer, but through the fear aroused they are nevertheless effective in securing definite and vigorous action. Of the process by which certain objects and situations have acquired emotional significance we are still very much in the dark. An appeal to experience would leave us two methods that together would meet the great majority of cases, namely, experience that results in pain or pleasure for the individual, and second, the method given under our second class of stimuli. The method of conditioning also promises well.

Whatever the method, however, it is true beyond question that the emotions, no less than sensory pain and pleasure, give value to experience both positive and negative, and thus serve as a principle of selection and of motivation. What we fear, we would avoid; what we are angry with, we would injure; what we are curious about, we would examine; what we are disgusted with, we would leave severely alone. The source of the greater value that the mother feels for her own child is subjective, not objective; it is in the mother, not in the child. For eyes not quickened by this inner glow of feeling, the outward marks, even if present, fail to bring conviction. It is one of the outstanding mysteries of life, in fact, how emotion will gild some of the common objects of life and give them for the individual transcendent worth. Thus emotion was made to do service for objective value long before cognition was adequate to determine the matter, and in fact long after. Nor is there cause to be dissatisfied with this arrangement. Being subjective, the emotions can reflect an individual need, a demand to meet a present

but temporary crisis without that long laborious process that marks the *via cognitionis*.

Furthermore, the emotions are notoriously turned to action. To fear is not merely a subjective state of trepidation, it is also an impulse to definite and vigorous action. To be angry is not merely a feeling of ill will toward a person or object, it is a desire to injure the object of the emotion. To be curious is to be moved to examine, to investigate, to manipulate, the object that has aroused our interest. Whether viewed introspectively or objectively this fact stands as basic. Emotions, in other words, do bear fruit in the practical world of action.

What emotions thus interpreted would mean in terms of brain action is largely a matter of conjecture. Too little is known at present of the exact nature of the nervous impulse and especially of the means of nervous control to state in exact physiological terms just what the various conscious states imply. One or two inferences, however, we may venture to make.

If our hypothesis be correct and the affective consciousness is the means by which the cognitive consciousness realizes itself objectively, the emotion is due largely to central factors, and not to peripheral ones as the James-Lange theory holds. The relation of emotion to cognitive factors is too close to allow of any other conclusion. A bear is not always a bear for the emotions any more than it is for cognition. And what it is emotionally depends upon what it is cognitively. If cognition in its simpler and in its higher forms implies the activity of association centers, then emotion too is dependent upon the same central factors. Artistic education and moral education are the means, and apparently the only means, of giving rise to the real æsthetic and to the higher moral feelings. That is to say, the only way of developing the proper emotional reaction is by opening up the proper associations, enriching the conceptual significance of the

object in question. This interpretation accounts also for the fact that objects are not natural stimuli for the various emotions but *acquire* this character and function.

Again, if the essence of the emotion is the impulse to action, or so far as there is a motor factor involved, it would seem to follow that the brain activity would lie between or involve the perceptual centers together with association neurones where the object is perceived and given meaning, and the motor centers where the excitement finds its normal expression. Thus, for example, our bear again. Let him be seen in the woods coming in our direction, near at hand, growling; and as relative to the other party, unarmed, alone, no apparent way of escape, and subjectively, an idea of a bear as a dangerous animal with concrete associations and previous emotional experiences in this direction; and the stage is set for a real emotion of fear.

Here is quite a complex of factors, some perceptual, some more or less cognitive or logical, some revived. And yet they all play a part in the excitement of the emotion. A modification of any one of several of the points suggested would leave the individual unexcited, unafraid. Let the bear be seen at a distance, going in an opposite direction, or the individual be properly armed, or moved by a desire to secure a good picture of wild life, and the emotional result will be something altogether different. Most assuredly the matter is not so simple as it has been pictured, a mere reflex response to a particular stimulus. Instead of the emotion being the sensory aftermath of a group of bodily reactions, does it not seem more in accord with the facts to regard it as the conscious correlate of the stimulation of certain perceptual and association centers having pronounced and direct motor connections? Certainly these are involved in the experience.

We may, I believe, safely take one further step. The two characteristic facts about an emotional experience

both subjectively and objectively considered are its *intensity* and its *extensity*. A strong emotion is one of the most intense forms of consciousness and calls forth the most energetic forms of bodily activity. At the same time its extensity is just as unmistakable. Memory, imagination, attention, association, judgment, are all profoundly influenced. But the emotion reverberates likewise throughout the whole bodily organism as we are coming more and more to see. Now the nervous correlate or cause of these two phenomena is a high nervous potential. Certainly it is in accord with all that we know of physiology to attribute intensity of consciousness to intensity of nervous impulse. But in the case of emotional stimuli this intensity does not lie ordinarily in the simple sensory stimulus. It must therefore be "stepped up" in the central transformer to secure the results observed. The same conclusion holds also in regard to extensity of response throughout the body.

By what process, then, the physiological question becomes, do certain stimuli tend to rise in nervous potential, while others operate smoothly and consistently at low potential? An answer to this question would go far to solve some of the mysteries now so perplexing that hang about emotional phenomena. A possible physiological explanation would be found in the principle of summation of stimuli. Thus every point in the bear situation has in it the suggestion, "Run"; or in more strictly physiological terms, to discharge down the motor pathway to the center controlling this form of locomotion. This much seems certain: To find the reasons for this rise in potential we must look not outward but inward, not to the incoming factor alone but to central ones that supplement and control the outlet for such stimuli.

To summarize: There are three classes of stimuli that excite the emotional consciousness. First, objects and objective situations; second, the perception of emotional

excitement in others; and third, the subjective excitement of the emotions through ideas and images. The third class has never received adequate recognition in formulating a theory of the emotions, which fact may account for failure in this direction. Language is usually regarded merely as a means of communicating ideas, that is, for its conceptual content alone, whereas many of our terms are suffused with emotional significance. There are two ways in which language excites the emotions, (1) by direct emotional association, and (2) through its power to represent symbolically objective situations. In this second method the imagination plays a large part, so much so, in fact, that to have a vivid imagination is equivalent to being emotional.

There has been throughout the course of mental development the closest correlation between the cognitive and the emotional consciousness, indicating a unity of function and a mutual dependence each upon the other. But while they have ultimately the same end they each have their own specific part to play. This specific function of the affective consciousness is to furnish the drive toward objectivity through bodily expression. For this reason there is a closer and a more thoroughgoing correlation between the emotions and the bodily organism than there is in the case of the cognitive consciousness. The means through which this drive toward objective expression is realized is through a preferential rating in consciousness. This holds true from simple sensory phenomena up to the most complex forms of the affective consciousness. The emotion proper probably arose concomitantly with the ability to apprehend not stimuli but *objects.*

In terms of brain states, the emotions, under our interpretation, are due more to central factors than to peripheral ones. Associations are as vital for the emotional consciousness as they are for the cognitive con-

sciousness. The particular function of the emotions would seem to be to raise the nervous potential so that immediate and vigorous action is assured.

REFERENCES

Feeling and Emotions, The Wittenberg Symposium.
Aveling. "Emotions, Conation and Will."
Pillsbury. "The Utility of the Emotions."
Havard. "A Functional Theory of the Emotions."
Prince. "Can Emotion be Regarded as Energy."
Cannon. "Neural Organization for Emotional Expression."
Pieron. "Emotions in Animals and Man."

PROBLEMS FOR FURTHER STUDY

1. How far is the intensity of an emotional reaction dependent upon the stimulus, how far upon subjective conditions?
2. In the various theories of the emotions mentioned above what function is subserved in each case?
3. How far would it affect the conclusions of the chapter to admit that both language and emotional expression acquire affective significance by conditioning?
4. Is there any way under a strict interpretation of the James-Lange theory that the emotions can serve any useful function?
5. Do we know enough of nerve tonus either to confirm or refute the suggestion of higher potential in emotional excitement?
6. Is it true that there is a definite and distinctive affective component to each of the basic cognitive processes, such as sensation, perception, memory, reasoning, etc.?

CHAPTER IX

FEAR

FEAR is doubtless one of the oldest forms of emotional reactions. Biologically it takes first rank among the lower organisms in its utility to the individual. It is at the same time one of the most intense and dramatic forms of emotional consciousness, and is, in all probability, as widespread as any that could be named. In other words, fear is a typical form of emotion besides being impressive both from a psychological and from a biological point of view. It is for this reason that we have selected it for specific discussion. Thus, by way of illustration, would we put in more concrete form some of the facts enumerated in the chapter on the emotions.

To be fearless, Aristotle tells us is not to be courageous but foolhardy. Courage is the happy mean between these two extremes. It is a part of the wisdom of life, as he conceived the matter, to recognize our limitations and not to run heedlessly and brazenly into situations that will inevitably work us ill. And in a world where immutable laws characterize the action of the forces of nature that may maim or even kill, the conclusion seems entirely justified. To play fast and loose with gravitation, or fire, or flood, or tempest, or with poison in a hundred forms is not so much to demonstrate our fearlessness as our foolishness. In a world, too, where dangers lurk, where wild beasts may attack, or may wreak a justified or an unjustified anger upon us, it is well that even man should go through life with a consciousness quickened by the possibility of impending

harm. Fear, in other words, is biologically useful, a means of adjusting the organism to some of the contingencies of its environment. Self-preservation, that hypothetical first law of nature, means primarily the avoidance of bodily dangers and this is to be accomplished chiefly by the presence of the emotion of fear.

A study of fear in the lower animals is a fertile and a fascinating field for examination. It is, however, one that we may not enter at this time. It may be permitted us, however, to peer over the fence or through it long enough to observe that so far as we can discover fear is a form of reaction that no member of nature's children of the higher order fails to possess. And there are not wanting arguments to show that it can even be traced down to the single-celled form of life such as the amœba. However strong or invincible animals may be, they will all on proper occasions evade a trial of strength and trust to escape as the better part of valor. As we might expect, it is a general principle that animals with the least effective weapons of defense will be the most timid. Thus the rabbit and the deer are easily frightened, and depend for safety upon flight or concealment. Fear, like all of the emotions, is an adaptive, functional device, no less obviously than are the bodily organs from a structural point of view.

The problem of how new fears arise, or rather, how the fear reaction becomes connected with new forms of stimuli is in reality a problem of learning. It is, however, a problem of peculiar interest in connection with the emotions for it comprehends the explanation of the extension of the emotional reaction so as to include a multitude of objects and situations, some of them logically justified, but many of them just as obviously not. The method by which new fears are established is therefore a question of deep practical significance as well as theoretical.

The oldest method of explaining this enlargement of any field of emotional reaction, fear included, is the intellectualistic. Fears are increased through knowledge. I know that lightning may strike and kill me, or that a wild beast may mangle my body and so on account of that knowledge I come to fear the object that is capable of thus injuring me. This theory, however, has become obsolete because of its utter failure to accord with facts. In the first place I do not always fear such objects, and many objects that I may fear are innocuous. Furthermore, fears are found both in childhood and in the lower animals where there is little likelihood, and sometimes even no possibility of knowledge of consequences being present. That knowledge may occasionally play a part and even cause an avoidance reaction in the case of man may be admitted, but this principle has only a very limited application at the best. It will not serve, therefore, as a general principle of explanation.

The principle most in vogue to-day as an explanation of the process by which an innocuous or even a harmful object becomes an object of fear is without question the principle of conditioning. The behaviorists with Watson as their leader have given rather convincing examples of this process of making two fears where there was only one before. Suffice it to say that there are doubtless many examples where this process of conditioning or something closely akin to it is actively involved in the extension of the fear response to one stimulus after another. But this does not imply that it is the sole method nor that it is sufficient in itself to serve as a single cause of new excitants becoming effective. Even to-day a more critical examination of the concept of conditioning is calling attention to some of its weaknesses.[1] Conditioning as a simple mechanical process of acquiring new stimuli

[1] *Vid.* Katherine Adams Williams, "The Conditioned Reflex and the Sign Function in Learning," *Psychological Review*, Vol. 36, No. 6.

for fear is justly open to the criticism that it neglects the influence of information or knowledge upon our emotional consciousness; that it gives no place to the conscious recall of circumstances and to the active play of ideas in both the reproductive and the productive imagination. We would hold therefore that the fact of conditioning is itself conditioned by the presence of conscious factors that at times may have even a determining and not a subordinate part to play in the process. In support of such a contention we must be content to await further discussion to be presented in the chapter on the imagination and the emotions.

As indicative of the care with which this form of reaction has been studied, we may refer to Thorndike's list of responses that the individual makes to the danger situation:

> Withdrawal of attention from everything save the exciting situation.
> Running from the exciting object.
> Running to cover.
> Running to a familiar human animal.
> Crouching under something.
> Crouching behind something.
> Clutching.
> Clinging.
> Nestling.
> Starting—i.e., a sudden tension of the muscles in general.
> Remaining stockstill, semi-paralyzed.
> Falling down.
> A screaming cry.
> Turning the head.
> Covering the head.
> Covering the eyes.
> Shuddering.
> Shivering.
> Trembling.
> Opening the mouth wide.
> Opening the eyes wide.
> Raising the eyebrows.

Temporary cessation of breathing.
Temporary cessation of heartbeat.
Acceleration of breathing.
Acceleration of heartbeat.
Difficulty in breathing and paleness due to the contraction of the smooth muscles of the lungs and of the small arteries of the skin.
Sweating.
Diminished action of the salivary glands.
Erection of the hair.[2]
Etc.

Truly a formidable list and yet all at times unquestionably present. To these should be added the glandular changes and the resulting modification of metabolism discovered after this list was made. Psychologists to-day without being quite so specific are all ready to admit and to emphasize the importance of these bodily reactions. Their presence is no longer subject to question, although whether they in themselves constitute the emotion as some claim, or are an organic expression of the emotion is still an open question.

During the war days there appeared in one of our literary magazines a description of fear that puts the matter in a more dramatic form than that of simple enumeration. The quotations are the words of an aviator who, having landed a spy behind the German lines, must wait a half-hour before he is allowed to start his motor for his own return:

I watched him go until he was swallowed up in the shadows. Then my real nervousness began. Somehow I didn't mind the adventure so long as there were two of us. But the lonesomeness of it, the helplessness of my position, if anybody was to rush out of the darkness at me, almost drove me wild. I took out my watch. The ticking of it sounded like the beating of my heart. I gulped down the rising fear, while goose flesh sent queer little quivers up and down my spine. My imagination conjured up strange forms all over the field. I felt a thousand pairs of eyes

[2] Thorndike, *Educational Psychology*, Vol. 1, p. 58.

staring at me from out the fringe of trees along the bank of the river and in the shadows of the fences. The minutes went by so slowly that I felt my watch was playing me tricks. I began to perspire freely in my warm flying clothes. A little stream trickled down under my helmet. I was surprised to find beads of perspiration on my forehead. I didn't dare move to get a handkerchief; I just stood there like a stone image. I had the insane idea that if I did this I couldn't be noticed, etc.[8]

Fear, therefore abundantly illustrates the deep-seated, widespread, bodily resonance that physiological investigators have recently discovered in generous quantities. Such facts are profoundly important both for their own sake, and no less as they serve to show how intimate is the relation between the conscious aspect of the emotions and its bodily expression.

There is no need that the directly adaptive character of fear in early forms should long delay us. At this stage its utility though functional not structural is as obvious as that of eye or stomach or legs or fins. Some object or situation dangerous to the organism is apprehended and fear resulting, a prompt, energetic reaction is made to escape physical contact with the source of the alarm. Such are the basic facts in a typical form of the fear reaction. Were this the whole truth, however, did it function only in this semi-reflex fashion, did fear always express itself in this specific response of flight or concealment, its interpretation would be hardly more complex than any other form of reflex action. Its importance in the lives of men would even be a diminishing one for the world is surely if but slowly being made safe for the physical life, at least as regards some of the objects that elicited fear in primitive man.

This method of considering the matter, however, is far too simple. Such it may be and probably is in the case

[8] Dean Ivan Lamb, "Intelligence," *Century*, Jan., 1919. .

of the lower animals. But man with his keener powers of analysis, his broader outlook on life, his better understanding of the causes that are operating in the world around him lives in a mental and a physical environment much more complex than that of these contemporaries of his. Some of primitive man's most intense fears he knows only in childhood and through the imagination or not at all; other perils of the unseen world his scientific investigations are constantly revealing. In other words, new excitants of fear, new stimuli are constantly being found and conditioned to this mental and physical response. Superstitious fears are destined to early extinction, or at least will disappear as soon as science and philosophy can be disseminated among the people.

One of the objects of recent psychological research has been to ascertain what are the natural, the unconditioned stimuli to the fear response. Two have been found, according to Watson: harsh strident noises, and removal of support. This fact, while important genetically, does not take us very far in understanding the place of fear in the normal adult life. What we are more interested in is to learn not only what are some of man's conditioned fears, but how these modify his reactions in his social and political relations.

That there is a loss of some of man's primitive fears is doubtless true, but on the whole, the list is probably an increasing, not a diminishing one. As man comes to adjust himself to an ever-expanding, more complex life, and enters into more intimate relation with new forces of nature the list of objects and situations capable of harmful consequences must necessarily increase. Furthermore, life may be said to consist of striving for various goals or ends, wealth, position, fame, family, power or success, the individual thinking that in the realization of such ends happiness will be achieved; but lo! he finds that

when the goal is thus attained he has given hostages to fortune and a fear of loss is the inevitable accompaniment of success.

> What profits me my name
> Of greatest knight? I fought for it and have it.
> Pleasure to have it none; but to lose it pain.

Thus did Launcelot muse over his success and fame. And thus has many another found that by laying up for himself treasure on earth, fears have been multiplied proportionately. Witness also the great business of our insurance companies and the millions they receive annually as the measure of human fears for one or two objects alone.

To enumerate all the objects that men fear would be almost an endless task, for not only do different persons each have a list that would be only partially identical, but through conditioning almost any object however innocuous it may be may serve as a fear stimulus to a given individual. Furthermore, the fear reaction itself shades off by degrees from the most intense expressions of terror to mild forms of simple unpleasantness. Just where the dividing line should be drawn can be decided only arbitrarily and upon this there will be no concerted opinion. Leaving the reader to draw this line of separation to suit his own convenience, we may, however, suggest a possible classification of man's fears.

1. Physical ills, objects that are capable of inflicting traumatic injuries or death, such as: wild beasts, human enemies, storms, floods, fire, lightning accidents, disease, etc.

2. Social ills such as: ridicule, punishment, loss of prestige or social standing, influence, position, reputation and the like.

3. Economic ills, loss of, or damage to property, poverty, loss of money, or other chattels possessed of monetary value.

In Hall's questionnaire on the subject of fear, thunder and lightning, reptiles, wild and domestic animals, darkness and strange persons were repeated 2,428 times out of a total 6,456. Fire, death, disease and robbers were named 1,058 times, giving for nine objects more than half of the grand total. These, we notice, were all included under our first head. Doubtless the strongest fears of mankind do relate as a usual thing to his physical welfare. This may be explained by the fact that it was for this purpose that the motive of fear became established in living organisms, and something of its primitive function and impellant power is retained through the centuries.

Concerning the second class, it may be noted that these refer to what James has called the "social self." Man certainly dislikes—shall we even say, fears—ridicule, being regarded as a coward, or as effeminate, and indeed every form of depreciation of the self in the esteem of his associates. Fear of social disfavor or disgrace is indeed one of the strongest restraining influences known to social reformers. The stigma of our penal institutions, of the "poorhouse," of death by legal means, the disgrace of being dismissed from school or college, these are all dreaded and to be avoided, sometimes through deceit, sometimes by the more legitimate means of reforming our modes of living. That all such marks of social disapproval are dreaded and by preference are to be avoided, is hardly open to question.

There is, however, one means open to our criminal class of avoiding this sense of social disapproval that they are coming more and more to utilize. By associating with individuals of like practices and modes of life no open voices of condemnation are heard. Thus we have gangs where all are blackened with the same criminal purposes and the "underworld" where moral condemnation is practically unknown. In this social circle there is

no one without fault to throw the first stone. Thus by associations with their own kind, with birds of the same feather, they escape the feeling of disapproval, or sense of moral inferiority that they would experience in the company of those who show a more proper regard for social standards.

That the dislike for this class of social reactions should be regarded as real fears is open to some doubt. For example, the native instinctive reaction of withdrawal may not be present in its original form at all. Self-restraint in the pursuit of some desired good, and vigorous bodily action in flight are so different that they seem almost to be two distinct reactions. And yet they are both forms of avoiding some unpleasant or painful consequences. Furthermore, it is to be remembered that all emotions show modification in their expression as well as in finding new modes of excitation. No serious distortion of fact, therefore, I believe, is involved in regarding this dislike for such forms of social disapproval as forms of fear.

Fear of loss of economic goods, money, property, wealth in any of its forms is still further remote from the primitive reaction to fear. In such cases the dread of pain as bodily injury is wanting. But since in our modern economic system money is a medium of exchange, it has come to represent a whole system of values and goods. There is thus a very decided discomfort in seeing one's property disappear whether through fire or flood, or robbers, or in the stock market. The dislike for losses of this sort, while not strong enough to prevent gambling or taking chances, where the prospects are encouraging, does prevent a prodigious amount of recklessness, and is responsible for care and caution in innumerable cases.

In confining attention too strictly to the physiological

reaction to fear there is danger that we become so engrossed in these specific reactions that we let the big show pass by unheeded. In other words, fear is a principle that finds expression in action both in the social and in the political realms as truly as in man's own individual reaction to some concrete situation. For example, the motive responsible for the British naval policy for the past decades, "the strongest navy in the world at any cost," was fear. A fear it may be that is logically justified but a fear it was nevertheless. The British Isles not being self-sustaining in the matter of food supplies, the lanes of the sea must be kept open at any cost. That this eventuality has never been realized in fact, means therefore, that fears may be excited by anticipated results as well as by actually existent situations. Thus has fear of a social or political evil shaped national policy no less certainly than we find some individual or personal danger determining the reactions of the individual. The submarine war brought the situation nearer than it had ever been perhaps since the Spanish Armada. But all these years the government has had to face this danger as a grim threat, a haunting possibility. Count up the cost to England of her navy during all these years, go to her navy yards and observe the magnitude of the work involved in its upkeep and growth, consider the earnest study, the planning, the thought being devoted to the improvement of the ships of line and their auxiliaries and some conception may be formed of the actual consequences to England of this one fear for her national existence.

In the drama of the Great War we find another manifestation of the overemphasis of this motive of fear. In Germany no less than in England the motive has found expression in national policy. While it is true that in their personal relationships the Germans like all other

people are brave, fear for national existence can be accepted without the disparaging stigma of cowardice, and is even exalted as a form of patriotism. Only as we think of this fear as a dominant motive in her statesmen and in her general staff can we find the explanation of the events that led up to the outbreak of the war. Hemmed in by two potential if not actual political enemies ready to close in on her and destroy her industries if not her people, fear here, as well as in England stimulated invention of instruments of war, determined the strategic position of railways, made people bear the burdens of heavy taxation, and when the call came made it seem a war of defense for the fatherland. Well may we be thankful for the example of that four thousand miles of unprotected border between our own country and that of our neighbor to the north. It is a practical demonstration of the possibility of nations even as individuals living peaceably as neighbors where greed and economic jealousy and fear of aggression are wanting. Create the proper mental attitude and war will cease. Stir up enmity among the nations, awaken or harbor suspicion and fear, and war is sure to come.

The value of fear of punishment as a corrective principle is being seriously questioned these days in many quarters, from capital punishment down to the maternal slipper. No longer do we hear from the pulpits except here and there the terrors of an angry God, nor of the eternal consequences of a life of sin. Corporal punishment in the schools is interdicted, and is largely disappearing from the home. Freud's theory of the complex has put in the hands of children, did they but know it, a potent weapon. Punish us, deny us our desires at your peril, might be the psychological retort of the child. So in our prisons convicts are to be regarded as men, with baseball, movies, entertainment and all the comforts of home provided, except a latchkey to the front

door. Without attempting to evaluate such reforms in all their aspects, it is still pertinent to ask whether fear is an effective as well as a justified means of reform.

Psychologically it is natural enough, primitive and unsophisticated though it may be, to attempt control of others through the infliction of pain, by threats of penalties to be inflicted, that is, by fear of such painful and unpleasant consequences. Biologically, this is one of nature's oldest and most certain devices for directing and limiting the activities of her children. Nature inflicts penalties impartially for infraction of her laws and sooner or later her children learn to refrain from major offenses in these directions. Such are the facts before us. But, it may be said, this is all very well for the lower animals that know no higher appeal, but to utilize it in the case of man is bestial and beneath the dignity of this her highest species. Dignity, however, is a term that nature does not know. Efficiency, not dignity, is her criterion of value. The real question at issue, therefore, is whether fear can be utilized to control the actions of lower animals and of men.

In making use of fear, however, for purposes of control, it should not be forgotten that man especially is a developing organism and the means that are effective at one stage of his development are not necessarily always the best, not always expedient even though the immediate purpose is attained. The child both in its intellectual and in its volitional life passes from zero or near zero up through different stages to its majority. There are times therefore when physical pain and unpleasantness are the only inhibitions it knows. Utilize the highest motive to which the individual will respond by all means, but let us not neglect an effective one because of some sentimental reason that may negate all our efforts in this direction. It is a question, however, which is the greater error, to discard fear altogether as an element for con-

trol, or to rely upon it exclusively in all stages of the child's development. Let us see just what its disabilities in this direction really are.

In the first place it should be remembered that fear as a motive is essentially negative not positive in its impulsion. Its primary function is to inhibit some reaction, but it does not inspire to right conduct. It may serve, therefore, to repress the evil but it does not necessarily in so doing promote the good. And after all is said, the only really effective way of fighting evil is not to suppress it, but to supplant it with something more worthy of approval. This much truth we may accept in the Freudism doctrine of repression. Human nature is too insurgent, too expansive to be nailed down by any set of prohibitions however severe the penalties attached may be. It is contrary to the very laws of our being to contemplate or keep in consciousness, and this is the only way in which a motive becomes effective, any one motive however dire the consequences attached may be. The primary law of motives is now one, now another, succession, not fixity. Man can be guided, but he cannot be quieted or reduced to inanition and remain man. Exclusive dependence upon punishment and fear of penalties though often tried, has never succeeded, and so far as we can see, never will.

This conclusion, however, by no means entirely disqualifies it as an instrument of social control. This is where modern reforms are making their error; one moreover that is both logically and practically only less serious than the point of view it is designed to supplant. As a corrective influence, it may still be too valuable to be discarded. Some evils are enticing and do bring an immediate satisfaction though in the end they may be gall of bitterness. In our active pragmatic world we cannot conveniently await this moment to secure the inhibition that the situation demands. The pleasures of sin and

of selfishness need an immediate antidote and that antidote is pain, or unpleasantness in some form.

In the second place, fear of punishment only restrains so long as it is believed to be inevitable or inescapable. As we in this country know only too well, when it is thought that detection can be avoided or that the penalty can in some method be escaped, the restraining influence of fear is reduced proportionately. This is probably the chief reason why crime is more rampant here than in any other country. Detection is difficult as never before, technicalities are regarded here as nowhere else in the world, and the forces of organized crime furnish immediate bail and efficient lawyers ready to take advantage of every loophole of escape. Happily the country is beginning to see that the rules of the game need to be changed; the advantage is too pronounced in favor of the criminal. Probably it is true that even lesser penalties but more certainly inflicted would best meet this condition.

Another limitation of fear as an instrument of control is that it so easily defeats its own purpose by inciting to anger. Let the punishment be too harsh, too severe and the restraining influence of fear is apt to be overcome by a consuming hatred or in passionate outbursts of anger. The step from fear to anger is a narrow, and even a natural one. Many an inmate of our older penal institutions has gone out from its walls, not with a wholesome restraining fear of imprisonment, but with bitter reckless hatred against society whose institution the prison is. In such a state of mind the fear is lost in the intensity of the anger aroused, and the individual goes out actuated by a spirit of revenge and retaliation, a more desperate criminal than when he entered. Fear as a means of restraint has its place, but the upper limit of its utility as a means of control is reached when the penalties become so severe that a real cause for anger against those

inflicting it is given. Excessive penalties are unjust and nothing rankles worse than this. Such are some of the inherent weaknesses of this means of social control.

And yet it is doubtless true that an intelligent use of this motive can avoid some or all of these disabilities and leave it a motive that can be used in the interests of social health and individual training and character. From what has been said it is obvious that fear should be utilized primarily as an inhibitive force not as means to secure laudable or praiseworthy ends. "Study your lesson or I shall punish you," is poor psychology. But, "Cheat in your dealings with others and I shall not blame you," is equally poor as psychology, and is bad morals besides. There is a tendency these days to overlook the large place that renunciation must needs have if social life is either peaceable or possible. The short-cut to satisfactions that are immoral or harmful must needs be counteracted by some unpleasant consequence, or the satisfaction attained will serve to establish the reaction as a habitual mode of response. And the proper antidote for pleasure is displeasure, or pain.

REFERENCES

Shand. *The Foundations of Character,* Book II, Chapter II.
McDougall. *Social Psychology,* Chapter III.
Wallas. *The Great Society,* Chapter VI.
Ribot. *The Psychology of the Emotions,* Part II, Chapter II.
Thorndike. *Educational Psychology,* Vol. I, pp. 57ff.
Hall, G. S. *A. J. P.,* Vol. 8, pp. 147-242.

PROBLEMS FOR FURTHER STUDY

1. What psychological principles underlie the fact that it is almost impossible to cure a dog that has become "gun-shy"?
2. Does man have more, or fewer fears than the lower animals? Explain.
3. Based upon the discussions of the chapter formulate some conclusion as to the proper use of fear as a means of social control.

4. Explain the fact that the company of even a helpless invalid reduces timidity.
5. One of the causes assigned for the recent crime wave is the small percentage of convictions in our courts. Discuss.
6. How and to what extent would speedy trials and prompt convictions help in reducing crime?
7. Some communities have revived the practice of "flogging" as a punishment for some crimes. What are its special advantages as a means of control over imprisonment?

CHAPTER X

THE AFFECTIVE SIGNIFICANCE OF LANGUAGE

WHILE language has been facetiously defined as a means of concealing one's thought, it is usually regarded and defined as a means of thought communication. And so indeed it is. But this does not mean that it may not serve other purposes or functions of man's mental and social life. To limit its significance to its purely conceptual content is a proceeding that is wholly unjustified. That language is also one of the most common and most effective forms of emotional stimulation is the point that we wish to emphasize in the present chapter. Whether the fact that there has been little done in this direction is just another expression of the intellectualistic bent of modern psychology, or a reflection of the weakness in emotional theory, the fact remains that this aspect of language has not received the recognition that it deserves.

When attention is once directed to the matter, what a wealth of illustration comes to mind to justify us in regarding language as one of the chief forms of emotional stimulation. To see two people engaged in a quarrel and note the resulting rise in emotional temperature as words and epithets are bandied back and forth, to remember that some epithets are not less deadly than a blow, to read a novel or to listen to a drama or a song, to recall how a good speaker can lead his audience through devious pathways to emotional reactions of varied tone and character, to accept the proverb that "A soft answer turneth away wrath, but grievous words stir up anger," to weigh the psychological effect of either poetry

or of prose, to appreciate at all the true purpose and function of literature in all of its forms, is to come to a deep realization of the fact that language, both oral and written, is an emotional stimulus of the deepest import in the lives of men.

Much indeed might be said in favor of the thesis that language arose from the communication of emotional states, not of ideas primarily. Animals growl, or spit, or hiss their threats, but there is little conceptual content in such signals. Their primary function is to awaken the reactions that we know collectively as fear. A careful study of the so-called language among the lower animals shows that the signals to which they respond are largely of this sort. The conceptual meaning may conceivably come with experience, but even this experience is by no means a guarantee of its presence. In most cases, the emotional reaction will suffice to meet the more urgent needs of adaptation. In view of this fact, it seems all the more remarkable and unfortunate that more has not been done in modern psychological discussion to emphasize the importance of the affective element in language.

The conclusion that language arose primarily from the need of communicating emotional states rather than ideas accords fairly well with what has been called the "Interjectional" theory of the origin of language. It is also supported by all that we know of the general principles that underlie the facts of man's mental development. Not that the relation between his emotional and his intellectual development can in any sense be regarded as successive. The separation of man's emotional and cognitive reactions either temporally or functionally is just the error that we are interested to deplore and to avoid. Ideas and affective reactions have been strictly cotemporaneous through the long ages of the development of mind both in man and in the lower orders of life. And yet, while cotemporaneous either the one or the other

may have played the leading rôle. What was essential was definite and adaptive action. And the affective factor in the lower orders, as it is still in the higher, was better adapted to receive prompt reaction than the cognitive element.

In primitive forms of life and in the early ages of man the emotions, we believe, have been the more vital factor because they possessed just that impulsion that is everywhere and at all times the most direct incentive to action. All of this we may assume was reflected in the character of the vocabulary employed and in the ideas expressed. Think for a moment of the relative increase in our intellectual or cognitive vocabulary, as compared with the emotional during the past few hundred years, or even during the past few decades, and we can begin to appreciate the changing, relative importance of these two aspects of life. Drop from our dictionaries the new terms that are primarily important for their cognitive significance, and the loss would be counted by thousands, against hundreds were the affective content the basis for their deletion. Or better still, compare the languages of the Greeks and the Romans with that of our own times, and the psychological weather vane will turn even more unmistakably toward the quarter of man's emotional reactions. The Greek gods were mortals in their emotional life with love and hate, lust and envy, friendships and enmities characteristic of the celestial world no less than of the terrestrial.

To-day theological problems center around specific intellectual problems and it is even denied that God has those attributes that give Him the qualities of personality. Truth, not artistic enjoyment, is the attribute most sought to-day. And so in the broad fields of science, the discovery of truth, the enlargement of man's intellectual horizon, an endless accumulation of information, and mastery of nature, all of these have drawn man's atten-

tion and interest away from the emotional life. Not that our literature is less intense emotionally than was theirs, for literature at all times centers upon the affective life, but even literature is not the supreme interest of the *intelligentsia* as it was in former days. In other words, man's kinship to-day with the cave man is closer in regard to his emotional life than it is in regard to his intellectual interests.

And all of this is, and, indeed, must be reflected in the vocabulary that men use. What a person is interested in, he thinks about and talks about. And to talk of this subject or of that he must have a vocabulary descriptive of the subject of his discourse. That there are certain emotional interests that have been fundamental through the ages and remain so to-day is beyond dispute; all that we are contending for is that the new interests, the new purposes, the new themes for thought that have been added are in large measure intellectual, not emotional in character, and that this is reflected in the constantly increasing vocabulary both of the individual and of any people collectively. But for the time being we are interested in the emotional content of language, not its conceptual.

That every word, however simple and apparently innocent of emotional significance has some potential capacity in this direction is the proposition that we are interested to maintain. This does not imply that the full emotional content of the word is called forth every time the term appears. But no more is its full conceptual connotation. It does mean, however, that to varying degrees words like objects become so intimately associated with emotional experiences that something of this affective content is a part of their full connotation. The laws of association or conditioning are as true of their affective experience as they are of the conceptual. The same building up of an emotional content is as true of words as it is

of objects themselves. Thus hills, mountains, trees, ocean, sky, and clouds sometimes impress us emotionally, sometimes are responded to only in the most incidental fashion. Objects therefore, dependent upon our experience with them, acquire a very diverse emotional potency and significance. And as it is with objects, so also is it with words. Some words there are that are so filled with emotional import that it is difficult to say whether this or the conceptual connotation is the more important. Such words as "mother," "country," "home," "sweetheart," "traitor," "liar," "thief," "scab," "liberty," "freedom," and a host of others are rarely used without something of their emotional content coming to the surface and giving a distinct tone to the mental reaction. In fact, it is not going too far to say that until many of the words we use have acquired something of this deeper emotional content do they become an effective, vital reality for either speaker or hearer.

What we are accustomed to call enrichment of meaning, enlargement of conceptual significance, is to no small degree the acquisition of this emotional content. That a word cannot thus enlarge its conceptual connotation without a corresponding increase in its emotional signification is a conclusion guaranteed by every psychological principle that relates to the emotional life. How barren, how empty do such words become if we confine ourselves to their bare conceptual content! "Mother" may be used, it is true, with its bare biological significance only in mind, but in the course of experience it comes to mean protection, nurture, self-sacrifice, comfort, an ever-ready, never-failing sympathy. "Mother" is love, personified, embodied, and as such calls forth the strongest emotional response. It was this that Whistler made visible in his famous picture, and not the fact that this particular person was the bearer of the ovum that developed into an organism. And as it is with this term, so it is with a

thousand others. "Traitor," "liar," "thief," "sweetheart," "friend," without this affective component become as impersonal as a wheelbarrow, or any other mechanistic term. Their real significance for life is gone, though their inner core of conceptual thought may be retained unimpaired. To be a traitor is to be detested, hated, not only, it may be, doomed to death, but worthy of it. To be regarded as a liar does not call forth the same intensity of disapproval, but it is to be disdained, esteemed as a coward, a "time-server," a person unwilling to stand out before the world, and to acknowledge his own acts. "Sweetheart" is not a biological term, nor is it equivalent to "mate." It is a term redolent of chivalry, of dreams, of unselfishness, and all those other charming ideas that rise in the heart of man when romantic love awakens in his mind.

And so we might go on indefinitely finding in every significant substantive in our vocabulary an affective component just as real, and in many ways just as significant as is the conceptual content or the meaning that is usually regarded as its core of truth.

This affective content of words, however, is nothing magical or apart from their meaning. It is rather one aspect of this meaning and is born and developed from experience. A dictionary may record the bare conceptual connotation of words, but it does practically nothing to establish or crystallize this emotional content. Nothing less, and nothing else than experience can give words their full-rounded, affective, vital content. And experience, it should not be forgotten, is a strictly personal matter. You may have had an experience similar to mine and yet yours is yours and mine is mine.

Thus it is that words, while still having the same conceptual content, may vary between the widest extremes in the total reaction that they excite. For what a word means in actual, dynamic worth is determined not by its

conceptual connotation alone, but by this as it has become enriched, supplemented with, or conditioned to certain definite affective responses. To illustrate, take the word "Soviet," upon its pure logical meaning capitalist and communist can cordially agree; it means a system of government in which authority is vested in bodies of workingmen, and in which the government has taken charge of production and of the wealth of the country. But this by no means exhausts its content. To the communist it means the end of bourgeois control, proletariat leadership, and therefore, where he was once subordinate, he is now a leader. Communism connotes, therefore, for him release from poverty, equality, or better still, a reversal of social structures, a system that releases him from "industrial slavery," and puts in his hands the wealth and leadership from which he was formerly, but not formally denied. With all of this, there is a pronounced affective component that raises what were otherwise a mere system of government into the plane of a great social reform, a religion. By this means the greatest ends of life are to be realized, man's fondest hopes attained, the millennium itself is to be inaugurated. But to the people of the Western world the term is not one of hope or of salvation. For them it means broken promises, a tyranny worse that that of the czars, the death knell of true liberty and of freedom, the establishment, not of a democracy for all and by all, but an oligarchy by the few and for the few. Thus conceived, it is readily seen why it calls forth the strongest antipathy and ill will.

Coming near home, we find an example of a word that is fast gathering unto itself an emotional component that is destined to be determinative of conduct in countless instances. "Prohibition" to one party means sumptuary legislation, the drastic infringement of personal liberty, the chief cause of hypocrisy, vice, and of lawlessness in all its forms. It is therefore something to be detested,

despised, as well as opposed. To others it means the removal of the chief cause of crime, a great constructive experiment in social welfare, a crusade against an enemy of physical, and mental, and moral integrity. In all of this, it is easy to see that the emotions play not a minor but a major part. In the first case, it means restraint interference, the primal cause of anger; in the second, it enlists the enthusiasm and zeal of any crusade against a real or supposed enemy of mankind. Words are symbols of reality, real experiences, and as such, symbolize not alone the objective reality in a conceptual way, but the emotional experiences associated with them. When these experiences have been pleasant ones, the affective component in recall will be of the same tone and *vice versa.*

Thus, if the restraint of prohibition has for me been irritatingly irksome, and I have been emotionally responsive to these restrictions, I will have an unfavorable emotional response excited and something of this unpleasantness and irritation will come to be attached to the term itself. There are even now in our midst many to whom the term is hardly less emotionally exciting than the proverbial red shirt is to the bull.

There is also in the truth that we are stressing, an explanation of an interesting fact in regard to the use of a foreign language, as compared with one's own native tongue. Words and phrases, and sentences as well, of an alien tongue, while conceptually equivalent to the vernacular, have what we may describe as a different flavor, producing a different mental reaction. This distinction is one that is more felt than thought for the conceptual connotation is, by all the canons of translation identical. Thus *"amo, amas, amat"* are not in all respect equivalent to "I love, thou lovest, he loves." *"Cogito ergo sum," "Je pense donc je suis,"* "I think therefore I am" are psychologically quite distinct. R. S. V. P. is something

more, something different from R. I. Y. P. The initials from the French words have something of the atmosphere of the court, a flavor of self-satisfaction, similar to the feeling of wearing good clothes, a feeling of value that arises from the knowledge that we are observing the form of polite society. And even the same word given its native pronunciation and anglicized, as "Paris," for example, although referring to the same city, is still distinct in the emotional reactions it excites. The difference in all such cases, and it is by no means unimportant, is, I believe, emotional not conceptual. To give to a translation even the best, the full firm flavor of the original is a task beyond the power of man, and the reason lies in the fact that we are now endeavoring to make clear.

Another excellent illustration of differences in emotional reaction where the ideas are expressed in a new terminology is seen in the various revised translations of the Bible. For one who has formed definite associations with the old version, the new version fails to strike home, to satisfy as does the old familiar one. The trouble is not in the sense, for that is generally retained and occasionally made clearer. But this does not atone fully for loss of familiar words and phrases to which very definite emotional associations have become attached. This loss it is evident will be more pronounced in the case of older persons and of those who have learned to look upon these expressions as the very utterance of a friend. To find words that will express the thought most lucidly is not the sole function of the language of the text. That violence is done to our emotional reactions when the vocabulary is changed, is a fact that translators would do well to consider.

There is thus with every word we use something of its past history in our own individual lives, a sediment of sentiment, as it were, and this can never be the same in the case of the vernacular, and of a foreign tongue.

"Love" in the vernacular has its foundation in the early experiences of childhood, in the maternal care that the mother has shown. Its primary meaning is found in the family and in all the experiences in this primary social group. It is redolent, therefore, of nurture, easing of trouble and distress, satisfaction of a thousand needs, of a never-ceasing care, a never-failing sympathy. The Latin *"amo"* smacks of the schoolroom, and is more a new symbol, or arbitrary sign for an idea that is already fixed. It is learned formally, as a mere act of memory, and is not the natural, the *bona fide* article. The emotional factors that cluster around it, due to the various associations found, are at best but fragmentary and artificial, as compared with the language learnt in childhood. True, they symbolize the same conceptual idea, but that, we contend, does not exhaust their psychological significance. As well expect a person that goes by the same name to be equivalent to my mother, my friend, or sweetheart, as to expect new words to have the rich association and the emotional force of the old ones. My experience with words is my own, and in a sense comprehends both conceptual and emotional factors that can neither be given nor taken away. The associations of the vernacular, therefore, contain emotional elements that a foreign tongue cannot possess. Just as it is true that we must form *de novo* the friendship or love we hold for any individual, so it is true in the same way that the emotional content for any term is its own and can no more be transferred bodily in the one case than it can in the other.

This much, however, may be said on the other side of the question. Translations, you may insist, while not in every respect equivalent to the original, do to a large degree produce the same mental response. This is doubtless true, but it may be explained without detracting from the position that we have taken. So far as the emotion

in a poem or a novel depends upon the conceptual content of the discourse, and this may at times be even a major share, the translation into another language may be, and is effective. The full, fine flavor, however, the subtle distinctions and associations that are more felt than thought, may thus escape.

Thus far, we have for purposes of illustration, confined ourselves to a few key words that are especially rich in their emotional content. This you may think is hardly a fair presentation of the case. Our selection of words, it is true, was based upon the presence of a pronounced emotional factor, and yet the principle involved applies to most of the terms that are found in daily use. Substantives, words referring to concrete objects, reflect something of the emotions that have become associated with the reality they symbolize. Yale, Harvard, Princeton, who would say that the meaning of these terms is primarily conceptual? But verbs, standing as the symbol of definite activities, likewise possess a pronounced emotional component. Adjectives, adverbs, prepositions, as well, it will be found, are not wanting in the same affective quality.

The principle involved is not difficult to discover. Words, when regarded for their basic purpose, are articulate symbols, used to represent reality for purposes of ideation and of thought, using the latter term in its broad generic sense. The representative relation between the symbol and actual experience with the world of objective reality is the basic fact in all language. The facts of a concrete experience with the world is the reality that these symbols are designed to represent. So far, therefore, as this experience has an affective component, so far will this aspect of it be crystallized and reappear in the word that we use to symbolize it. The mental processes for association are here exactly the same for the affective and for the conceptual factors involved. At

times depending upon the purposes of the moment, the conceptual content is the important matter, while at other times the affective content is the more emphasized. In scientific and philosophical discussions and in all truth-searching processes the former is the important one. And sometimes, it is said, the less of the latter the better. But in literature, in song, on the stage, and in all sorts of propaganda, in advertising, and in half of everyday discussion, the emotional factor does not take a secondary place. The matter of ratio, however, is not a matter that can be easily or ever settled, but of the presence of an affective component there is no ground for doubt.

But language is not language in its fullest estate and power, so long as it consists only of articulate symbols for various objects and actions. While such a vocabulary is important and would enable man to communicate many ideas to his fellow men, this would be language only in the interjectional stage. The subtleties of articulate thought lie beyond this stage of lingual development. While we have thus laid a solid foundation for a better understanding of language, we do not find here its maximum effectiveness as an emotional stimulus. As mere symbols of ideas, words may be passed over with but a minimum of either their conceptual or emotional content coming to clear consciousness. Reflected upon and kept before consciousness, they may function either conceptually or emotionally to the full strength of their acquired significance. But even so, their meaning is only suggested, not asserted.

When we come to the combinations of words into sentences or judgments, however, we have a new form of the thought process that is hardly less significant emotionally than it is conceptually. We have now risen to the plane of articulate thought, and such thought has an emotional content no less than a logical or conceptual one. Single words, as we have shown, have as concepts repre-

senting reality an affective connotation depending both as to its character and its degree upon the experience of him in whose mind the term is present. Fire, as a subject of mental reaction, may bring to consciousness thoughts of its chemical nature, its supreme value to men, thoughts of Prometheus, or of Heraclitus, its destructive power, memories of the home fireside, or the fire in camps, thoughts of the pangs of hell, or any one of a thousand other associations with their variously colored affective responses. But put the words in a sentence, and both thought and feeling are focalized and all of this wandering ceases. "Your house is on fire," is not less definite conceptually than it is emotionally. In the one case, the associations are free, uncontrolled, subject to the individual experience of the person reacting to the word. In the other, the association is definite, specific, controlled by the person using the term more than by the one receiving it. And as the single word may have an emotional content, so also may the thought expressed in definite categorical form.

Some thoughts, like some words, have a rich affective content, while others are largely conceptual in their thought content. Science, it is needless to say, is occupied primarily with the logical or conceptual content of the language it employs, and is sometimes even led to think that the presence of an emotional factor will seriously vitiate the result. The ideal of science is, therefore, to be strictly logical, and to deal exclusively with ideas only in relation to their conceptual content. On the other hand, it is almost as great a sin for literature avowedly to be didactic as it is for science to be deliberately emotional in its appeal. The didactic element, it is true, may be present in literature, for the presentation of new truth, original ideas, to show some new meaning in some familiar fact, is one of the effective means of emotional stimulation. So also the truth that science yields may

have the deepest emotional appeal. Science as well as art has use for the imagination in regarding the world as a cosmos. But in each case, the presence of the other factor is, as it were, a by-product.

Truth is only a remote end in literature, but is the immediate objective in science; emotional reaction is the soul of literature and of art, while realistic truth is subservient to this end. But for all of this, the separation is never final nor complete. The scientific goal is often inspiring, and art at its best is revealing. The reason for this is that truth, much truth, if not all of it, has emotional significance. Art, too, is provocative of thought, as the works of every great author and artist convincingly show. To regard emotional stimuli as meaningless, empty of conceptual significance, at cross purposes with intelligence or even independent of it, is but to proclaim how superficial, how inadequate are your ideas upon this subject. Rather do we find man's scientific interests and his affective life developing hand in hand, science opening up new fields of truth and art appropriating them for its own purposes. Now in all of this, language is a medium of communication both of thought and of feeling that is indispensable, both for man's individual and for his social development.

To illustrate the affective element in literature let us take these familiar lines:

> The curfew tolls the knell of parting day,
> The lowing herd winds slowly o'er the lea,
> The plowman homeward plods his weary way
> And leaves the world to darkness and to me.

As an expression of some new or significant truth, these lines are as empty, as futile, as needless as the proverbial hard-headed business man holds them to be. Days have ended and passed into night, and will continue to do so interminably. Cows do walk slowly, and occasionally

voice whatever feeling they have in this characteristic cow fashion. The plowman, provided he has done an honest day's work, is probably tired, but why bother to repeat such obvious facts. Considered from the standpoint of their affective contents, however, these same words, conceptually insignificant, become the source of an emotional response that has not failed to please men through long decades. How subtle is his use of words! The mood of the whole poem is forecasted in the first line. "Tolls the knell," the words are suggestive of death, and our mental response is assured by the association we have with the two key words in this phrase. And so we might go on to analyze both word and phrase and complete thought, finding nothing incongruous to the mood he seeks to express. The plowman might have gone home whistling, but this would have been a false note in the picture. Only as we have regard to the affective content of the lines, therefore, are they worthy of our consideration and of the unfailing approval they have received.

If now we inquire how it is, or why language has this power to excite in us such diverse and intense emotional responses, the answer is found in the representative function of language. Words symbolize reality, sometimes perceptually, sometimes conceptually, but always with something of the content gained by actual intercourse with the world of everyday experience. Consequently, so far as any experience has been affective, so far will this factor be present in the word that symbolizes it. This is but the elemental fact underlying all association, and it is not less true of emotional experiences than it is of conceptual.

There is another psychological principle involved in the use of language that we will examine in detail later, but which should be referred to briefly in the present connection. I refer to the activity of the imagination,

as it to some degree, at least, visualizes the content of language either spoken or written. And this process of thus visualizing or imagining in terms of concrete reality the content of the words we use tremendously increases their emotional potency. Take the line, "The plowman homeward plods his weary way": the conceptual content of the words, as a mere idea, has something of emotional significance which is intensified by the emotional associations that are connected with the various words involved. But picture now the scene in terms of concrete reality, the plowman, weary, soil begrimed, with chores still to be done, not walking sprightly, but plodding, one foot dragged wearily after the other and new measures of pathos, deeper emotional reactions will be excited than the words alone from their concrete associations will explain.

In this reaction, and it is so fundamental that the question is sometimes raised whether all thought be not carried on in terms of images, the objective situation is recalled with a vividness and clearness that approaches a genuine perceptual experience. At least, this is the method by which a representative experience comes as near as possible to simulating a concrete, a real objective experience. And this is done more frequently than in any other way by reacting to language as the stimulus that directs and controls the process.

The most fundamental distinction in literature is that between poetry and prose. In some ways it may be compared to that between the animal and the vegetable in biological classification.

It will be worth our while perhaps to inquire whether this classification does not rest upon the psychological distinction between the intellectual and the emotional. If such a distinction can be made, I am sure there would be no hesitancy in asserting that poetry is the form of literary expression for the emotions. In this form of

literature we find that which is fanciful, lyrical, and expressive of basic, or sometimes subtle emotional nuances of the mental life. Prose is matter of fact, "hard-boiled," seeks to express as accurately as possible the truth of the actual world around us. It looks to reality for its subject matter, and is essentially *descriptive,* using the term in its broadest connotation. This distinction, while valid over wide areas of literary and scientific expression, is faced with some disconcerting exceptions. While it is true that science as science rarely takes the linguistic form of poetry, there is one form of expression of the products of the imagination that does regularly take the form of prose, namely the novel. There is, however, I believe, a good reason for this exception to the classification that we have suggested. Novels are descriptions of a feigned reality, and in order to accentuate their verisimilitude, they take the natural form of description, namely, prose. On the other hand, there is sometimes in poetic form, as in the epic, for example, as much description as there is in a travel talk. And yet in spite of this, there is a marked difference in the psychological reaction in the two cases. The feigned character in the one case is recognized implicitly, and the truthfulness in the other is accepted explicitly as having objective reality. Thus even the description introduced into the epic is for the sake of the emotional response that it elicits.

Without pushing the distinction we have suggested too far, we may raise the question why it is that emotional expression so commonly takes the form of poetic expression, and science practically never. The answer must be found in the formal differences between these two forms of expression, although it may be that even so, the truth will be far from clear. Poetry as distinguished from prose is usually regarded as imaginary in content, and usually takes a metrical form. The factor of rhythm is pronounced, and rhyming of some order is common. Is there

in the emotional consciousness any reason for preference for these factors? To some of them a marked emotional advantage can be found. Rhythm and tempo are fundamental elements in many forms of emotional excitement, and to accentuate them is therefore a natural mode of emotional expression. For the other factors of poetic forms, the various forms of verse, the inverted order of sentences, the use of words that rhyme in some definite order, to mention only the formal factors, the best explanation of their use is found in the fact that poetry is a product of mental creation and not of description. Being thus so largely a product of creative thinking, if skillfully fashioned, it can be made to conform to the formal requirements of versification, as mere description or exposition need not, and generally does not. Such conformity as we find in any poetic form, therefore, does suggest the character of the content, as truly as do the formal characteristics of any other work of art. It thus declares itself to be the handiwork of an artist, of a creator, the product of the free play of the imagination, a form created not for the intellect primarily, but for the emotional response it will engender.

There is another generalization better substantiated by fact than the last one, that we venture to offer in regard to the emotional effect of language. When the primary object of discourse is the communication of thought, written language is best, when the purpose is emotional, spoken language is to be preferred. In written language there is as a general rule more attention given to the choice of words, more exactness and more conciseness, more accuracy of expression. The idea and its accurate formulation is here the prime objective. Written words both legally and psychologically are more fatal than spoken ones.

But when the purpose of discourse is chiefly emotional, spoken language is far more effective than written. In

the latter case whatever emotional reaction is aroused must come from the association in the mind of the reader either in connection with the words used or the thought expressed. But to this are added in spoken language all those vocal or tonal qualities, force, pitch, tempo and quality of voice that are so expressive of emotional reaction that they are in music an effective means of emotional expression independent of conceptual content. Thus a drama read from the printed page may give little or more of emotional excitement dependent upon the emotional excitability and the imaginative activity of the reader. The emotional response even without acting is increased by proper inflection as we find in "reading."

But the most effective results are found where proper inflection is supplemented with gesture, that is with good acting. The principle of summated stimuli is here involved and greater emotional excitement is thus produced by simultaneous stimulation through eye and ear. Impressive illustration of the value of these factors is being worked out on an extensive scale in the development of the motion picture during the past few years. Shadows without language, whether of gesture or of facial expression were not specific enough to enable the beholder to follow the plot adequately and to receive the desired emotional stimulation. These were supplemented accordingly with descriptive sentences interspersed as occasion demanded. To the appeal of gestures and of facial expression was added the stimulus of some specific ideas or conceptual thought. But such phrases were disjointed and for that reason more or less artificial. So the silent movies gave way to the "talkies" where language and action are united in principle, as they are on the stage. While perfection in tonal qualities must be awaited, the advantage gained by this two-sense presentation are so great that the voiceless movies for presentation of drama are probably doomed.

REFERENCES

Allport. *Social Psychology,* Chapter VIII.
De Laguna. *Speech. Its Function and Development.*
Russell. *The Analysis of Mind,* Section X,
Sopir. *Language: An Introduction to the Study of Speech.*
Edman. *Human Traits,* Chapter X.
Pillsbury and Meader. *The Psychology of Language.*

PROBLEMS FOR FURTHER STUDY

1. What methods can you suggest for determining the reality of the emotion excited by language as compared with that aroused by objective stimuli?
2. What introspective differences, if any, can be noted between the emotional reaction to the two forms of stimuli?
3. What is the essence of the attitude of "make-believe" and its bearing upon the emotional reactions involved?
4. Are there any essential differences in the emotional reactions in reading a story, in seeing it on the screen, or acted on the stage? How far can these differences be accounted for by the different stimuli involved?
5. To what degree can teaching and preaching take the place of actual living in the control of the emotional reactions?
6. What is the process by which words acquire an emotional content?
7. Compare the emotional significance of the four factors used on the stage, namely, words, inflection, facial expression, and gesture, with the psychological background of each.

CHAPTER XI

IMAGINATION AND THE EMOTIONS

To be accused of "having no imagination" is not meant to be, and is not, in fact, a flattering characterization. The phrase denotes a defect, an absence of something that is presumably a valuable trait of mind. But the phrase when so used is not to be taken literally; rather it implies a weakness, a defect that is more emotional in its nature than cognitive. To be indifferent to a person in distress, to be so self-centered that you are incapable of seeing affairs from the point of view of the other fellow, to be so literal and prosaic and commonplace in your interpretation of life that the richer and the rarer implications escape you, is what the phrase essentially means. To be unable to picture to yourself in concrete imagery the situation in which others live or die, struggle and fall, are happy or are in distress, and so to fail in that emotional reaction which makes one ready to respond in sympathy and in helpful action is "to have no imagination." What we are interested here to note is that imaginative activity is closely connected with emotional responses. The person with no, or with slow imagination, is the person phlegmatic as to his emotional life or even incapable of entering with true zest into the experiences of others.

The place that the imagination occupies in the hierarchy of mental processes has significance for us in connection with its emotional relationships. Since it is a fair assumption that its emotional significance is in some sense commensurate with its intellectual, we will introduce the sub-

ject by an approach from this more familiar point of view.

That the imagination marks a stage of mental development well up the scale of mental processes is a conclusion so well substantiated that it is scarcely open to doubt. Simple sensation is an immediate response to an objective stimulus and utilizes only a minimum of factors drawn from experience. When the nervous mechanism is in order the reaction has almost the certainty and invariability of a reflex act. Perception utilizes past experience to a large degree, and yet in this reaction memory factors are combined with present sensations more subconsciously than consciously. Memory may be either conscious or unconscious, motor or muscular, as well as explicit and recognitive. That is to say, the results of experience can be retained in the lower centers not subject to conscious recall, as well as in the higher ones that are. But imagination is essentially a representative process and is dependent upon conscious data exclusively. In the form of reproduction as in the recall of images and objects previously experienced it is hardly to be distinguished, and never wholly separated from conscious memory. In this form it marks the first step toward the unquestionable use of ideas as a means of adjustment. It is here therefore that comparative psychologists are coming to look for the earliest manifestation of representative activity among the primates.

In creative or productive imagination we have a form of mental reaction that approaches creative thought itself. Think for a moment of the results to man of this form of creative thought, inventions in every field of action, mastery of the intangible, unseen forces of nature, the creation of social Utopias and at least their partial realization, to say nothing of the inspiring, illuminating ideals of beauty as found in the various arts, and we will get some conception of the necessity for a mental device that

will furnish a dynamic to turn ideas and images to objective realization.

Thus in productive imagination there are conscious manipulation, experimentation, trial combination that are the mental antecedents of inventions in every field of human endeavor. The late President Eliot of Harvard was not far from the truth when he said that the imagination was the most valuable factor in man's mental equipment. It is, at any rate, the process that leads most immediately and directly to invention, to discovery, to that delightful field of creative art, and to new and better means of adjustment both to man's physical and to his social environment. Imagination is not, as some conceive it, to be identified with the unreal, the fanciful, but is a real instrument of adjustment, of invention, and so relates to the factual world as well as to the imaginary one of pure phantasy.

As an instrument of adjustment, therefore, with objective reference, it is essential that it should have an affective component, with a drive toward objective expression. It is here that the impulsion of emotional excitement is the spur that leads men from satisfaction with the old, the habitual, to enthusiasm for the new, from custom to creation. Without such an incentive even the clearest apprehension of the advantages to be derived from the proposed change would leave man with the inertness of the lotus eaters or of extreme old age.

There is a point of difference between the stimulation through the imagination and through objective stimuli that is of the utmost significance for the mental life. In the latter case the stimulus is objective, perceptually apprehended, and contingent upon both time and place. In the other method the material is representative, not presentative, subjectively provided and is thus at the instant command of the person involved. Just as a mind well stored with facts has material for reflection, for

mental manipulations, for new and creative thought, so this same subjective, representative material is material for emotional excitement no less than for cognitive activity. Given a rich fund of ideas, memories, whether as mental imagery or as abstract ideas, and the power to reinstate them in consciousness, and to feel again something of the affective experience that accompanies them, is to be able to a large degree to declare your emotional independence of the perceptional world. While no one in his proper state of mental health would care to do this, everyone thus finds the sources of enjoyment and of emotional activity greatly increased by this supplementary fund of subjective experiences. To be able thus to control your own affective life, to be capable of entertaining yourself, to let your choice ideas be your most intimate companions, to be able to select and to stimulate a preferred emotion or a mood, and to do this out of inner resources at your instant command, all go far, not only to determine conduct and character, but it is also to have arrived at the happy dignity of being a self-contained, a self-controlled individual.

Furthermore it is well to remember that to reduce stimuli for the emotions to the actual encounter with material objects through sense and perceptive stimulation, and so to take away all forms of representative experience is no less extreme for the emotional consciousness than it would be for the cognitive. In either case it is to deny the presence and significance of mental processes of a representative kind. And to do this is so to deplete human experience that it could scarcely longer be called human. To know no fear until danger actually threatens, to face no conditions of weal or woe until they are actually before us, to feel no anger or ill will until the offense has been committed, and to lose it as soon as the stimulation is ended, to be oblivious of the other sex except when members are present, may seem to some a

condition highly to be desired, but it is a condition that could be attained only by giving up memory, and all the representative activities of the mind.

So do we think of the lower animals threading the jungle untroubled by vision of danger ahead, of the lower orders of life enjoying the bounty of to-day with no thought of the famine to-morrow. This simplicity, this care-free existence, doubtless has its appeal; but it is a bliss that is gained at too great a price to be attractive to the average alert and active mind. Unutterable boredom it would doubtless prove to be, did man remain mentally as he is. To be ignorant of the future, to be unconscious of its dangers and its opportunities, its cycles and its seasons, is to be untroubled by life's uncertainties; but it is to forego the advantages also of foresight and fore-preparation, to lack the joy of invention and the achievement of ends long desired, and to lose all the pleasure of anticipation. Such powers do men possess only in their ability to utilize past experiences. Is the affective factor of consciousness here vital as it is in the more direct encounter with the objective world?

In accord with the general principles of mental activity, we have every reason to suppose that such would be the case. If the purpose of the affective consciousness in perception is to give an impulsion toward useful adjustments, and representative thinking is a means to this same end, then the demand for an underlying inherent dynamic in connection with such activity can hardly be disputed or denied. Objects as objects have acquired a meaning and have been conditioned to certain reactions on our part. If ideas are to serve as successful counters for them, something of the same impulsion there must needs be when the mind is engaged with them. After all, what would be the use of picturing either castles or cornfields, flying or "flivvers," dams or dangers, bridges or buttons, wealth or fame, if there was not present the

impulsion to realize what thus appears as good and to avoid what is thus apprehended as evil!

Yes, there is, as common observation tells us, a most decided affective tone to those representative activities that we call imagination. If the emotional factor is present to make dynamic and urgent in actual life what were otherwise merely factual without impulsion or drive to action, it is only natural that in living over again scenes from life, or in imagining situations that are not less dramatic, there should be present to some degree this same impellent factor. It is one of the positive achievements of behaviorism to have shown that emotions are conditioned to new forms of stimuli, and this same process is doubtless as effective with words and ideas as it is in the case of new objects present to sense. But whether by this method, or some other, words, ideas, concepts, all develop affectively as truly as they do conceptually. And the recall of images and even of ideas is to be stimulated as truly in one direction as in the other.

Such are some of the reasons for believing that imaginative activity is the source of emotional stimulation as well as a distinctively cognitive process.

By way of contrast it will be instructive to compare such forms of literary expression with the less imaginative, more matter of fact accounts of tragedy and comedy, success and failure, elation and despair, births and deaths recounted in the daily press. Why is it that a novel or a drama presented on the stage, which is apart from real life, excites our emotions more than these statements of facts, that are fraught with actual emotional significance? The roots of a full explanation sink deep into the nether springs of our mental life, too deep to be traced out in detail, in this connection. All that we wish to do for the present is to call attention to the fact that the imagination has an important part to play with the matter. An obvious difference is that in the one case the account is

adapted to appeal to the imagination, enough details are suggested or described to enable the reader to fill in the picture, while in the other there is a mere statement of fact which may or may not excite the mind to make the abstract concrete. To attempt, for example, to picture in this concrete imagery the fact that more than thirty thousand people were killed last year in automobile accidents is a task too gigantic, too abstract for the imagination. Not by statistics, not by numbers, but by the concrete presentation of some specific act are the emotions generally excited. Thus one automobile accident actually seen is more exciting than those thousands read about, unless the imagination fills in the picture with the details that the newspaper accounts generally omit.

Not generalities, not abstract truth, however significant these may be for the intellect, but concreteness, something specific, something that can be pictured in the imagery of everyday experience is the most effective approach to the emotional life. So also the fact that we are killing by automobile more people in a four-year period than were killed during the Civil War does not impress us so profoundly as the latter fact and largely for the same reason. The equipment for war, roaring cannon, flashing sabers, deadly bayonets, rifle fire, to say nothing of charging armies, waving flags, uniforms and all the rest, these are concrete and impressive data that come readily if not inevitably to mind when war is mentioned. Death under such mental envisagement is more concrete, more impressive emotionally than any mere factual statement can be. It would not be far from the truth to say that the emotional response to any fact apprehended representatively is proportional to the data actually reproduced by imaginative activity.

Better than any theoretical reason for believing in the connection between the imagination and the emotion, however, is the obvious fact that imaginative activity does

actually produce an affective reaction. The list of illustrations is here so great, the form and variety of the interaction so manifold, that we are more perplexed by the richness of the field than by its meagerness. Whether we turn to the mature form of adult life or to the life of the child, the emphasis of this connection is there unmistakable.

Perhaps there is no more striking characteristic of the mental life of children than the appetite they show for stories. The "Br'er Rabbit" stories with their lineal descendants, the bedtime stories of the daily press, in which the actions of the animal world are recounted with all the dramatic concreteness of actual happening, are a forceful illustration of the strength of this representative power of the imagination. Their attraction and their appeal are emotional. The words of the story guide the mind of the listener, so that he pictures for himself the forms and actions and situations that are only schematically presented in the story. In this way, the story lives for him and assumes in large measure the emotional force and significance of reality. But the words without this vitalizing activity of the imagination would be as meaningless, as barren of life and emotion as pages of mathematical formula to the uninitiated. Children and grown-ups as well listen to, or read these accounts with the imagination actively filling in with concrete imagery what the author has only symbolically expressed in his description. The author's words, without the reader's own vivid, life-giving interpretation, would be only a bloodless, nerveless, medley of sounds. The meaning, the life, the verve, are furnished only by the apprehending mind.

And so it is in the case before us, the words of the story are a guide and a stimulus for the imagination, but without this inner response, can in no respect substitute for the objective reality there described. It is the func-

tion of the imagination in such cases to fill in the picture with the concrete imagery that the words only symbolically express. In so doing, the words are made flesh and the objects and the actions described are converted into sensuous elements consciously present to the mind, though not perceptually present to the sense involved. And the more vividly the scene thus assumes a feigned objectivity, that is, the more vividly and fully it is imagined, the more intense becomes the emotional reaction.

Thus when a child hears a story related, his mental reaction is to picture in terms of his own past experience the situation as it is suggested by the language, but always and only as it is verified and interpreted in terms of his own experience. Through his imagination, therefore, he creates, as it were, a real world, real objects, real actions, real adventure. At least, it is as real as any representative experience can be. And with this real but imaginary world of inner experience, there comes as naturally as light comes with the sun, an emotional or affective component that not only awakens interest, guides and quickens association, gives a further tang of reality to the experience, but like all affective reactions gives an impulse toward dramatic expression.

The case is not different in kind, though more subdued and refined, when we come to the literary and artistic experience of mankind in the full-grown mental life. So vital is this emotional element in all forms of art, in literature, in painting, in music and the drama, to say nothing of the latest form of dramatic art—the screen—that it is usual in all discussions of these forms of art to say that their primary function is to stimulate the emotional consciousness, not to instruct the mind. We are on safe grounds when we assert that the emotional factor in all art is one of the basic factors, if it is not the *raison d'être* of this rich field of human endeavor. Certainly no

discussion of the relation of the imagination to the emotional consciousness can avoid some positive conclusion on this most interesting topic.

The essence of the novel is to give a transcript of life. It is a picture fashioned and colored by the medium of language, a "word picture" it has been well called, that brings before the mind of the reader not only the outward acts of the character such as the eye could see, but the inner forces, the deepest thought and aspirations are revealed as they can be in no other art. Articulate language, though not the most primitive mode of communication, is the most elaborate, the most accurate, and the most effective. By means of dialogue and description, the reader enters the very innermost recesses of the lives of the characters and thus his emotional reactions are called forth with a certainty and an intensity that seem for the time being to be possessed of all the attributes of reality. By producing through the imagination what the author first thus conceived, we share their fortunes and misfortunes, their perils, their victories, their despair, their thrills, finding in such vicarious activities an emotional reaction that is hardly less alluring than life itself.

One of the surprising and interesting facts in this connection is how soon and how readily we become partisan in our sympathy and interest. Based on the slightest foundation, we accept certain characters as our friends, and just as easily come to regard others with ill will. In reading a novel, or in watching a play, we are all friends of virtue and enemies of vice, as we are not always in real life. But alas, this attitude of mind, so easily assumed, is also just as easily lost. The reason that this is so is doubtless found in the detachment of such experiences from life, and the fact that these characters come before us with our judgments unprejudiced by emotional experiences relating to our friends and acquaintances. Hamlet, for example, would win the sympathy of an

audience as a modern prince would not. Toward real characters we have formed emotional attitudes that are favorable or unfavorable and these serve to promote or to hinder the formation of emotional attitudes. We are not so quick to respond toward them therefore as their acts alone would warrant. But the characters of a novel or of a drama come before us fresh and free from emotional bias so that we are ready to respond to their acts and manifest character at their face value. True it is that at times this emotional reaction is promoted or hindered, because of race prejudice or of certain established associations relating to facial expression, dress, or other evidences of character and position. And yet not these, but actions and thoughts and purposes are determinative, and these are made obvious within the limits of the story or the drama itself.

A second factor that helps to explain this partisanship so obvious in the mental reaction to a novel or a drama is found in the quick and pronounced response that emotional stimuli call forth. An emotional response is by its very nature extreme and whole-hearted as we have shown above, consequently when some action is seen contrary to our established ideas of right conduct, this, in the absence of preëstablished sympathies for the character involved, is sufficient to throw the emotional balance distinctly against him, and cause it to continue throughout the action recorded in the novel or the play.

The limits to which the novelist can go, the degree to which he may depart in his subject matter from the actual patterns of life is set by the capacity of the imagination. What is said, what is done, what is suggested, must not only have an inner logic running through the whole, this is the demand of man's intellectual faculties, but to be a work of art it must be capable of being pictured in concrete terms, must, in other words, be capable of imaginative representation. This is the chief reason why systems

of philosophy are not true works of art. But the limits of the imagination are not soon reached nor are they the same for every individual. In spite of much that is fantastic, and bizarre, and unreal, and fanciful in literature, it is worthy of note that the books that live on and become the classics are those that deal with life as it is actually lived by mankind. Pictures like the *Thief of Bagdad* are not so much appreciated as true works of art as they are as examples of marvelous ingenuity in producing spectacular effects. Virgil, Milton, Dante, Shakespeare, kept closer to life, and to the forces that are operating, though invisibly, in the minds of the characters they portray.

The dependence of art upon life, and the limitation of the imagination to vitalize pictures that contradict reality is well illustrated by Cubism and Futurism in recent painting. Men are not, and never have been, and never can be apprehended in terms of cubes and angles. This is contrary to the facts of perception and consequently there is inherent in such pictures a sense of unreality. To paint nature so is an artistic, or at least a psychological lie. Art has here departed so far from the basic perceptual experience, that the imagination refuses to follow and to accept such forms as real. Consequently the affective reaction fails to appear. It should not be forgotten, therefore, by the artist, that in the subject matter with which he deals, life and nature set the pattern that he must respect. This does not mean that realism is the highest and the truest form of art. Far from it. But the material for the imagination does come and must come from experience, and while this material may be manipulated and formed anew, we pay the penalty of transgressing this primary law of the imagination by passing from art to philosophy, or by spending our time in devising forms that will ultimately be regarded with levity as their chief emotional appeal.

On the other hand, when the artist or the novelist

makes his work conform to the basic fact that the imagination is an inner power that represents ideas in concrete, objective form, and thus gives to his conceptions something of the vividness, and vivacity and verve, that is to say something of the emotional content that real objects possess, then do his works give an emotional reaction proportional to his artistic ability.

If, as the theory of evolution and the principles of biology all assume, the primary purpose of all consciousness is adaptation, and the affective consciousness is, as we maintain, the dynamic for such reactions, there is every reason for believing that there is a pronounced affective component with the processes of the imagination. Since the imagination has demonstrative value as a means of adjustment, it would follow that the affective component would be commensurate with the function of this form of mental reaction. While logical analysis and abstract conceptual thought must be employed to gain nature's innermost secrets, the power to visualize situations both retrospectively and prospectively preceded this final development of thought, and the emotional reaction such activity engenders is strictly commensurate with its biological significance.

The analysis of any novel and the emotional intensity accompanying the various types would abundantly justify our principal contention. Novels that are reflective, analytic, are too didactic to produce intense emotional reactions, while those that are full of action suggesting vivid and concrete imagery are the ones that thrill the unsophisticated mind. In all such cases, our emotion, like the harmonizing of the melody in music, follows the lead of the imagery suggested. Is the heroine in peril? We follow with bated breath but with beating heart while she escapes time after time miraculously from the evils with which she is beset. And as we share in her distress, so we share in the thrill of her rescue, and in the

ignominious downfall of the villain. So in the drama, we may weep at the tragedy, and regard for the time the characters on the stage as real and the situation as actually being enacted. It is indeed remarkable to what degree and how often men give over their minds to this process of self-deception. What a large part, what a very large part does the imagination play in all our lives! How else shall we understand it if it be not the interest of the emotional life?

When it is asserted that all art and all literature exist primarily for the stimulation of the emotional consciousness, the statement perhaps needs some qualification. This does not mean, certainly, that all intellectual elements should be eliminated and nothing introduced that does not have a direct emotional appeal. There are novels, successful ones too, and plays that discuss profound social and religious problems where arguments are formulated with greatest coherence. This, however, does not contradict the statement made above, although it emphasizes the need for a careful interpretation of the facts. Not only is there no such thing as a pure emotional stimulus, but the most profound intellectual problems with which the human mind wrestles are diffused with emotions.

Ideas as well as objects have an affective content. And it is for the sake of the emotional content, not for truth's sake alone, that these appear in art. A big idea is better than a little one, both intellectually and emotionally. A basic truth of life portrayed in the concrete form of art is more stimulating emotionally than trivialities. Realists too often ignore this fact. Carracci's "Bean Eater" is neither so intellectually, nor so emotionally stimulating as Raphael's "Sistine Madonna." Tragedy, dealing as it does with the greater values of life, is regarded as a higher form of art than comedy.

In all imagination there is, as the very condition of its effectiveness, a sense of "make-believe" that we must now

examine a little more explicitly. Imagination without this temporary feeling of reality would lose its effectiveness both for the emotional life and as a practical instrument of adjustment. For what indeed, is the significance of objects or actions that have never been and can never be?

Childhood is usually regarded as the time of life when make-believe approaches nearest to reality. There is doubtless some significance in this fact provided it can be interpreted aright. The child not only in listening with never-failing interest to the story of animals or of magicians vitalizes them as adults do not, but in his games, in play with dolls, and in the working of his own fancy, as an engineer, an aviator, a robber or Indian fighter, gives to these objects and ideas a reality that falls not far short of the reality that the scientist ascribes to the invisible forces with which he employs his time and mental energy. For the child the broomstick becomes a horse, unless perchance, children these days are too sophisticated for such puerilities. But whether with broomstick, or with sailboats and trains of cars that show the highest similitude to their prototypes, the principal holds. Intellectually they may be interesting as true counterparts of the original, but not so to the child at play. Here they *are* the original, the real object that they represent in miniature.

With adults the principle is perhaps best illustrated in the novel and the drama. Here as we become interested we accept for the time being the account given or the acts presented as in some sense real. The principle, however, is not confined to works of art but is of much wider application. Imagination is not one of the childish attributes that we put away as we grow to maturity. Every ball game that we attend and regard as important, every effort that we put forth to lower our score on the golf course, every point in tennis that we contest with

our utmost skill and energy, every move that we ponder in a game of chess, shows something of this feigned evaluation, a make-believe that alone gives point and significance to the result achieved.

But whence comes this sense of reality where no reality is? By what process does a stick with no head or legs and only inertness for action become for the child a spirited steed? Or how does the puerility of hitting, and following for hitting again, a little ball possessed sometimes of the most obstinate and provoking qualities, assume enough importance to try men's souls as affairs of state do not? How, in truth, does any game assume for the time being a magnitude and an evaluation that all would admit is artificial and extreme? Or why when I know as well as I know my name that the situations and actions on the stage are merely staged for effect, should I accept them as so real that they excite in me an intense emotional reaction? What is the explanation of this trait of human nature that affects so deeply both the cognitive and the emotional processes of mankind? To call it imagination is not enough, for what we wish to know is why this sort of action itself gives for the moment the impression of reality.

There is significance in the fact to which we have called attention, namely, that in this sense of reality the imagination of childhood is superior to that of maturity. That the imagination of the child is stronger, more effective than that of the adult is contrary to all that we know of the principles of mental development. It is the order of the mental and of the bodily life that capacity increases with the years. Imagination is not at its maximum in childhood, although its capacity as a substitute for reality may in some respects well be so.

The principle involved is not superiority in strength or efficiency, but the *exclusiveness* with which an idea takes possession of the mind. From childhood to old age

this principle holds intact. An idea not inhibited or contradicted by other ideas is accepted for the time being as real. This is the principle appealed to in James's theory of idea-motor action, and is the best explanation we have for the phenomena of suggestion and hypnotism. It is, therefore, a principle of wide import and unquestioned validity.

This principle being accepted, the question now arises, What is it that gives certain ideas this domination over the conscious life? In childhood it may well be ignorance or, more accurately, thoughtlessness. The child being ignorant of the laws and forces of nature finds no contraditions where the adult mind finds insuperable ones. Thus with fewer inhibiting ideas the child accepts actions and ideas as real that the adult does not and cannot under many circumstances. Not that the child has a stronger imagination therefore, but the principle involved has a better chance to express itself.

In the mature life of man, as in such instances as those cited above, there is obviously some other principle involved. The audience at a play is not ignorant of the fact that what they are seeing is a play, not real life. The business man knows full well the difference between a financial transaction and the game of golf that he plays when the business of the week is ended. And yet the point is, that while there is no ignorance of the facts themselves, these facts are not made use of in the evaluation and interpretation of the play or the game of golf. In the theater the audience forgets for the time being the more realistic truth relating to the place and the action and accepts scenery and action at their face value. And so on the golf course there is no less earnestness, and concentration, and sometimes profanity, than if the winning were vital to one's success and happiness. Not from what one may know theoretically comes his interpretation and valuation of any experience, but upon the ideas that are

actually and actively related to that experience. Not what facts I am able to recall but what I do recall gives color and meaning and emotional reaction to the case in hand. And the emotions as we have shown are in fact highly selective in their influence over associated ideas. Consequently any experience of an emotional nature by the control of associations that will come to consciousness will tend to give to it a tang of reality that will last during the dominancy of this particular state of mind.

Imagination is easy and vivid for the child, therefore, because the mental principle of interpreting any object or situation in terms of the idea or ideas present in consciousness is valid and operative throughout the whole course of man's ontogenetic development. Likewise in manhood, especially under the stress of emotional excitement, the natural, the normal thing to do is to accept the sensuous facts of the moment as real. Thoughtfulness, the marshalling of associated ideas for a better and a fuller interpretation of any experience, while the better, wiser course is followed, is a habit that comes only with oft-repeated effort.

But all the while there has been in my own mind a doubt, a question, a lack of full assurance. Is there not in all such imaginative experience a lack of the full flavor of reality, a sense of make-believe that will not down, that, after all, sharply differentiates between real adventure, real tragedy and the simulated form that we find in reading a story, or in watching a play on the stage? Are not the emotions as imaginary as the characters and actions that excite them, proper enough in their place, but far removed from the actual enduring emotion that comes in the turmoil and struggle of our daily lives? Are the emotions in fact real or are they, too, but make-believe?

There are certain differences that are so obvious that there can be no question of their reality. For example, the emotions arising from real tragedy, real adventure,

real romance are more lasting than their counterparts produced by literature. When we close the book upon the final chapter or leave the theater the tale is told, the real world presses itself upon us again and we soon forget the troubles and victories of the characters we followed with bated breath. Not so do we react to the real misfortunes of our friends, or to the emotional exaltation of those we love. Real tragedy comes back, and back, and back again, a specter that will not disappear, a shadow that cannot be dispelled. But a dozen words from our companions, a supper after the play, or the chance meeting with a friend, and lo, the misfortunes and suffering of the play characters are gone, and leave not a trace behind.

Surely there is some profound psychological difference between states of mind that affect us so differently. Instead of the emotions being the same, does not the comparison of substance and shadow better express their relationship. The grief from the death of a friend may rest like a pall upon the mind of him who is left to grieve, while the grief or elation from the novel we read, or the play we see, disappears like the summer fog before the rising sun. Could Tennyson, for example, have given the long thought and the deep emotion of *In Memoriam* for some imaginary character? Hallam was real, a friend, a brilliant youth whose loss long seemed irretrievable. Could he have written so well of Lycidas? Do not these two poems express perfectly the difference between the real and the feigned? The one affects us deeply as the grief for a real friend, and the various sections of the poem show us how slowly came the philosophic calm. It is a transcript of Tennyson's inner life and thought. The other is the outcome of a mood, transient, fleeting, a marvelously beautiful lyric, but real grief, real loss, real sorrow are not to be found.

The great weakness of imaginary experience as a sub-

stitute for the emotional experiences of real life is the fact of its detachment. Like a dream experience which may be vivid, and emotionally intense and apparently real while it lasts, still it fails to fit in, and to coalesce with the activities of the normal waking consciousness. Hamlet in spite of modern dress is not a real person, nor is his dilemma an actual one. Were an actual crime committed, the proper reaction would be not to sit in mental agitation, but to call the police. Imaginative activity, therefore, is apart from real life, as is, indeed, suggested in a material way in all art. The picture is isolated by a frame, the stage is not the street, but is separated from the auditorium by the curtain. We see only so much of the actors as is effective in developing the plot. The novel is read and the book is closed, as is the inner mental experience itself. Real life and the acts pictured by the imagination, therefore, do not fuse. This primary fact weakens the influence of drama and the screen and of the novel in the development of character; weakens it, I say, but does not destroy it wholly, for just as material gained in actual life may be carried over into the world of the imagination, so emotions felt in the latter field may be carried over and applied in the other. The process of conditioning can go on in either direction.

If what we have said be true, our actual heroes, Lincoln, and Roosevelt, and Edison, and Ford, and Lindbergh, not to mention our popular athletic heroes in every community, have an influence in the lives of men that is not approached by Galahad or Ivanhoe. The former are in the main current of human affairs, and touch it at many points. Roosevelt is associated with robust health, with cowboys (real ones), college, tennis, boxing, horseback riding, war, Rough Riders, race suicide, conservation, nature study, hunting, statesmanship, the Panama Canal, exploration, etc., and that not in a feigned, imaginary way, but in a concrete practical manner that satisfies our

scientific demand for actual reality. And Lindbergh's flight touches life, real life, as Fairbanks' wonder films do not. They will stand examination in the real sunlight. Fairbanks shows best on the stage.

There is a vital distinction therefore between these two realms of action, the real and the fanciful, the actual and the feigned. There is however a place for both, a solidity to the latter that bears fruit in the practical realm of our everyday interests and needs. Intercourse with the actual workaday world around us is life; productive imagination is however a means to a more complete mastery and utilization of the objects and forces of the world. It is capable of being made a most efficient servant, but as an end in itself it leads to sentimentality, not to action. Scientific inquiry with its demand for hard facts, for all the facts, is a mental process for which there is no substitute. And yet the scientific interest in itself is not enough, for it lacks the impulsion that would give the facts discovered a place in the actual world around us.

Are, then, the emotions excited by the play of the imagination real or are they too as imaginary as the experiences that excite them? Does this detachment from reality which characterizes art reflect itself in the emotional response that follows the apprehension of some masterpiece?

While it is of the essential nature of any emotional reaction to be but a fleeting response to some stimulus, often an indifferent one, the other aspect of the matter should not be forgotten, namely, that the intensity and vitality of the response depend more upon the character of the apprehending mind than they do upon the character of the stimulus. Experience and past associations count as truly in emotional responses as they do in cognitive, though in a different way. It is impossible, or at best highly improbable, that I will feel the same poignant sorrow for misfortunes to a person I know only by name

that I feel for the same experience of one I know and love. To feel emotion in its deepest form the foundation must be laid in a manifold of experiences, for these are the ties that bind friends together, the roots that give nourishment to either love or hate.

On the other hand, it must be admitted that art, whether in the form of literature or painting or music or the drama, has one distinct advantage over real life as a form of emotional stimulus. Art is selective in the material it presents as life is not. Life goes on under the influence, if not under the control of impersonal forces that are not interested to bring about some dramatic situation. Art, on the other hand, consciously plans and selects with a view to dramatic effect. There is thus a logic, a direct causal sequence in the novel or the drama, that is not found in the hurly-burly of life. And it is this directness, this obvious, patent logic of circumstances that accounts in no small measure for the emotional intensity that results from such presentation. It is in this direction that the creative skill of the artist is to be found. Not that these must always be crassly physical. There are inner conflicts, moral heroisms, spiritual victories, as well as physical ones, and their presentation to the mind awakens our sympathies no less than the former. Only the immature and unsophisticated mind lives wholly in the objective world.

Such are some of the facts in the case. There remains the problem of their adequate explanation. We may say as a possible answer that in such art experience the emotion aroused is not real, not genuine, however closely it simulates the typical emotion. Tears may flow, a lump may rise in the throat in tragedy, or cheers may burst forth as the villain gets his due in melodrama, but, after all, this sorrow does not have the grip of reality. Much could be said for this point of view. Certain it is that however apt and forceful the delineation of the char-

acters may be, the brief period involved in reading the novel or watching the play gives neither time nor opportunity for their lives to become interwoven with that of the reader or of the spectator. Real friendship is not a matter of minutes or hours, but grows and ripens with the seasons. The attitude of the reader or beholder is not that of real friendship or enmity, but is more that of *partisan feeling.* This attitude of mind comes quickly, with little foundation, but does not touch the depths of being, does not represent any paramount interest, or rest upon basic principles of character or of conduct. Thus a crowd at a baseball game for trivial reasons champions the one team or the other, and may go into apparent ecstasies of joy over some play, but the whole experience is but for the hour.

And so in the novel or the drama, we make for the time being the fortunes of the characters our own. We champion the cause of some, we experience an enmity or ill will for others, and in so doing enlist our emotional susceptibilities in their lives though but temporarily. Thus we find the thrill of danger, the glow of triumph, the satisfaction of seeing the wicked thwarted or punished, the reward of virtue, all on a summer's day. These characters, therefore, however strong this partisan feeling may be, are not our friends nor our enemies, but are only creatures of the hour.

It is instructive in this connection to contrast the effect of a short story with that of a story by Dickens, say *David Copperfield,* or with Victor Hugo's *Les Miserables.* That the characters in these approach reality much more nearly than those in a story by O. Henry, there can hardly be any question. The influence of such an imaginary character as that of Jean Valjean persists, and the effects of the story cannot be dissipated in a day. Part of the difference is doubtless due to the fact that in a short story it is not so much a character that is portrayed as it

is an act or an incident that is related, but the temporal element also is important. Time is demanded for acquaintance to ripen into friendship, even in the world of the imagination.

Or again, it might be contended with some measure of truth that there is in all imaginary experience a sense of unreality, a detachment from life that prevents the emotions experienced under such stimulation from being *bona fide* emotions. The world of our perceptual experiences, the world that checks up squarely with the reports of eyes and ears and memory and with the laws of nature and of mind, this is the real world, and the world created by the imagination is at best just imaginary. That the mind does distinguish between these two realms is a basic fact of human experience, and that the two are seldom confused is also an obvious fact. Even in childhood, when the two realms approach each other most nearly, the boundary is ordinarily recognized with sufficient clearness to prevent confusion. But the fact that we retain through life the capacity to pass with ease from the one to the other, and that when we are in either it seems for the time sufficient, points to the conclusion that they each have their part to play in life and that the crass realist is not the only trustworthy interpreter of experience, nor the only credible prospector for truth. The two realms have in fact much in common, common material, common qualities, common laws. In the one, however, we are freed from the heavy limitation of matter and time and space, and may manipulate and rearrange to our heart's content.

On the other hand, it must not be forgotten that the logic of the emotional consciousness is not that of the cognitive. Many of our most intense emotional reactions, if measured strictly by the standards of intelligent thought, would convict us of possessing an intelligence hardly above that of the moron. Thus the occasions for

anger, or fear, or love, or disgust, looked at in retrospect fail to justify the intense emotion they called forth. And while it marks the way of mental and moral growth to get these two aspects more in harmony with one another, there is still abundant justification for each even as they are.

In casting about for points of difference between the emotions aroused by real experience and those excited by art or indeed by any sort of imaginative activity there is a significant one that is hardly subject to dispute. One of the most characteristic attributes of the former class of emotion we have said is the impulsive action that they engender. The primary emotions are above everything else from the side of consciousness an inner impulsion toward some particular reaction or end. But it is just this factor that is largely, if not entirely lacking in the same emotions when they are aroused by some imaginary situation, as for example, in the drama or in daydreaming. It is only the unsophisticated member of the audience in the third gallery that allows his ill will to find vocal expression. In a word it is the essence of an emotion in real life to find extrovertive expression; in emotion excited by imaginary situations the reaction is strongly introvertive. Imaginary situations such as the drama, the novel, and daydreaming do not therefore find their normal expression in such impulses as real situations produce. The visceral reaction may be present, but the objective purposive reaction is lacking.

This, then, we would claim is the chief and most obvious difference between these two forms of emotional reaction. The inner tension and excitement may be essentially the same, the specific character of the given emotion is present unmistakably in either case, the bodily resonance may be active in one situation as in the other, but while the one leads on normally to some specific adaptive bodily reaction, the other stops short of this, and the

mind tends to take a contemplative attitude, characteristic we shall find of the æsthetic reaction. Imaginary situations, therefore, however intensely they may excite, and however realistic they may seem to be, remain imaginary and fail to connect up with reality and with the actual daily experience of the individual. And this difference naturally enough is found just at that point where real emotions exert their influence in the objective world. Of the actual and the legitimate function of the emotions created through the imagination we shall speak in another chapter.

If what we have just said be true there are also distinctions in the reality of the emotions that are aroused by imaginary situations. Some will be more real than others. Not only so, but their reality will vary inversely as the strength of impulsion that they create. At the one extreme will be fear and anger which we feel only in a highly academic sense, and at the other amusement or mirth which is as effectively produced on the stage as off of it. Here the impulsion is merely to laughter and this can be, and is given full and free expression.

There is one other phase of our present theme, the affective component of imaginative activity, that is of considerable practical and even economic importance, namely, the desire and the endeavor on the part of man to supplement the ideas of the world of the imagination and of thought with factors drawn from direct perceptual experience. No small part of the desire to travel, or at least the desire of well-informed persons, is just this desire to fortify, to supplement, and to clarify their mental pictures already formed, with perceptual factors. When these are once experienced, though they add not greatly to the sum total of our knowledge, they do give a vividness and a sense of reality that add tremendously to the experience. Thus our images of the Parthenon, or of

Hagia Sophia, or of Jerusalem, or of any of these monuments of antiquity when purely imaginary seem too tenuous and ghostlike, too fleeting and unstable; they need the tang of reality that comes best, if not exclusively, through direct, perceptual experience.

Thus are our images supplemented, and vitalized, and the affective component is correspondingly intensified. So there is on the part of the naïve a morbid desire to visit the spot where some atrocious crime or tragedy occurred. The imagination is thus given concrete material to work into the picture, and the thrill is correspondingly increased. Not all of this is for the sake of clearer knowledge, although that result too is attained. Thus do thousands visit the fields of Waterloo, of Gettysburg, of Ypres, of Château-Thierry, or travel thousands of miles to see the Parthenon or the Pyramids, or the Taj Mahal, and nature's wonders, as well as the monuments of the hands of man. Such data is not indispensable for knowledge, but it does give a new affective value and significance even to familiar ideas. Accuracy, and fullness of detail, clearness, concreteness, and above all a sense of reality are thus gained and these all have affective worth as well as cognitive.

But this result is not always so. In a recent cruise around the Mediterranean just this result did occur as to the monuments in Athens and Constantinople and in Galilee and in Egypt. But in Jerusalem, the hand of man was too much in evidence, too obvious. A church for Golgotha, and a brass socket for the cross and the tomb without any of the marks of nature and of the rocky hillside, were all too remote from the ideas that had so long been held. They failed to fuse, and so there was little gained in a feeling of reality and of actuality. Galilee with its sea unchanged and the barren shore on the east, with its shepherds and their flocks on the hillside, all of this fell in with the picture and gave a

sense of reality to Biblical scenery that Jerusalem did not produce.

The same result was experienced in a visit to the Lorna Doone country and Tintagel with King Arthur's Castle and Merlin's Cave, the reputed scene of King Arthur's last fight and the lake where Excalibur so miraculously disappeared. In this case, little was gained by way of addition to the pictures formed from reading Tennyson's *Idylls*. The *Idylls* remained the *Idylls,* and Tintagel remained a rocky headland, and the mere was only a lake. The reason for this is found perhaps in the fact that the inner life of the king and of his knights was of such major importance, and the scene and places of such minor significance in the poet's account, that the perceptual facts added little to the vividness and reality of the picture.

If we may venture a generalization upon so few facts, it would be that a visit to historical places, to Rome, or Athens, or Egypt, or London, or Stonehenge, is pure gain, gain both cognitively and emotionally, for thus do we gain perceptual data that enliven our mental pictures, vivify them, give to them the peculiar touch of reality, relate them to the world of actual experience in a way that nothing else can do. But to visit mythological places, the place where Prometheus was bound, or the Sirens dwelt, or Mount Olympus, or Parnassus, or even the scene of some story like the Lorna Doone valley, or the reputed scene of one of Zane Grey's novels, adds little to the enjoyment of the story. Fact and fancy are here too far apart, they do not fuse and hence the imagination gains little in the process. But a visit to the Coliseum, or the Roman Forum, or Pompeii, or the Acropolis, provided the mind is well stocked with historical facts beforehand, adds mightily to the vividness and vitality of the scenes as we endeavor to relive them in our own mental experience. The gain, as we have suggested, is

just this, that we are thus enabled to fill in the picture with concrete material, that can be gained with equal vividness in no other way. And thus is the affective element commensurately increased.

REFERENCES

Woodworth. *Psychology,* Chapter XIX.
Russell. *Analysis of Mind,* Chapter VIII.
Sharp. *Ethics,* pp. 80ff.
McDougall. *Outline of Psychology,* Chapter X.

PROBLEMS FOR FURTHER STUDY

1. How would you account for the fact that so little attention has been given to the imagination as an emotional stimulus?
2. Show that in order for the imagination to fulfill its cognitive functions effectively a pronounced affective component is essential.
3. How far, and why is the function of dramatic or musical critic antagonistic to enjoyment of such productions?
4. Compare imagination and abstract conceptual thinking pointing out the advantages and handicaps of each.
5. Justify the statement that the affective reaction to imaginary situations tends to be introvertive.
6. What are the factors that serve to explain man's insatiable appetite for stories, the drama and novels, and for art?
7. What are some of the principal reasons why literature and art will not suffice for real character development?

CHAPTER XII

SOCIAL STIMULATION OF THE EMOTIONS

We have suggested above that there are three chief forms of emotional stimulation. First in order are objects, and objective situations perceptually apprehended; second, the perception of emotional excitement in other individuals, and third, ideas. It is the second form that we wish to examine in the present chapter.

During the past two decades there has been amassed a wealth of psychological data that has given rise to what has come to be known as *Social Psychology,* These facts are in general designed to show to what extent one's ideas, customs, beliefs, standards of conduct, ideals and actions are influenced or determined by the beliefs, customs and conventions of his associates. The results of this investigation are not flattering to one's pride, and to his feeling of intellectual independence. For when a careful examination is thus made, it appears that social factors have had a great deal to do with the content of our standards and beliefs, and that we are by no means as individualistic and independent as we had thought ourselves to be. Just as the great proportion of our intellectual ideas are borrowed from those who in their turn received them from others, so our beliefs, standards and ideals have been received in the same way. Only now and then is some really new and significant idea discovered and formulated by the average individual. The great body of our scientific conceptions, ideas, standards, beliefs, customs, etc., that make up our social inheritance is received ready made, adopted, and accepted as if it were

the product of our own inventive and reflective thought. This body of facts has been accumulating rapidly in recent years, so far as scientific truth is concerned, but changing, developing slowly and reluctantly where customs and conventions and emotional factors are involved.

And yet the case is not quite so unflattering to the individual as these facts might lead us to infer. While only rarely is a new idea formulated, a new point of view assumed, there is a sense in which what I have thought is mine. Euclid, it is true, first demonstrated many of the propositions in geometry, and school boys by the million do but repeat the demonstration he had the honor first to formulate. However, when an individual has once been through the demonstration and felt its force, the thought is his in a very real and very significant sense. What I think is mine, though Euclid, or Plato, or Newton, or Kant, or Darwin may have been the first to formulate the argument or the conclusion. And what is true in regard to ideas is also true of emotional reactions. No matter who first experienced love or hate, whether they can be traced down to the lower orders of life or not, my experiences are mine and none the less real that they are common to mankind. Thus it is that both the intellectual life and the emotional have for every individual the tang of reality and of novelty, of eternal newness, and yet are old as human experience itself. On the other hand, this does not obviate the fact that both ideas and emotions may be largely borrowed, and their origin is to be looked for not in the subjective activity of each individual mind, but in the objective reaction of others as these are perceptually apprehended.

Whether social stimuli of this sort are sufficient to engender emotional reactions *de novo,* or serve only to intensify emotions otherwise excited is a question that has recently been raised.

Thus Allport says, "Nothing new or different was

added by the crowd situation except our intensification of the feeling present, and the possibility of concerted action. The individual in the crowd behaves just as he would behave alone, *'only more so.'* "[1] To the direct question whether social *stimuli* alone are able in themselves to engender a given emotion, a simple answer of Yes or No would be more misleading than enlightening. Neither would, in fact, be strictly accurate. That such forms of stimuli serve only to intensify the emotion already and otherwise indicated is not correct. In a stampede of cattle, for example, it is doubtless true in many cases that not ten per cent of the number involved will have seen the original cause of alarm. And yet, their actions will be no less frantic and senseless than those who did. In such cases, the actions of other members of the species alone would seem to be a sufficient stimulus to awaken a real fear reaction. The same conditions, at least the same to external appearances, would sometimes be found in crowd action among human beings. Let a crowd be seen hurrying from a theater with strong manifestations of fear, and this will be sufficient to excite one who has smelled no smoke and heard no cry of "fire." And yet the case while closely analogous to the stampede of cattle externally is essentially different. In the case of man, these signs of alarm and of a strong desire to get to an exit, will in all probability suggest the thought of fire as the most probable explanation of the phenomenon observed. The assumption that there is only one form of emotional stimulus, namely, an objective, perceptual one would therefore lead to the thought that these signs of fear cannot in themselves excite a real emotion of fear in the beholder, but that they can serve only to intensify an emotion already engendered. While it is true that men rarely if ever are just frightened in general, afraid of they know not what, or are angry without having this ill

[1] *Social Psychology*, p. 295.

will focussed upon some particular object, this is not equivalent to saying that the emotions can be excited only by an object or situation sensuously perceived. And so in the case before us where the objective stimulus is the perception, not of some fearful object, but signs of fear in others, the mental reaction is not that of an unfocalized fear, but the thought of fire, and of imminent danger, suggested by the expressions of fear in others might very well take the place of the objective stimulus. The odor of smoke, or even the perception of fire, is no better fitted to bring up the idea of danger and of possible injury, independent of associations and of past experience than is the same idea suggested by the expression of fear reaction in others. Fire is not in itself dangerous, but the idea of a rapidly spreading, enveloping conflagration, where exit is barred, is more fearful than is the perception of fire itself without the ideas suggested.

The direct and immediate adequacy of these social stimuli in themselves is somewhat discounted by the fact that the idea of fire could hardly fail to intervene as a natural response to the whole situation. But the show of emotional excitement plus the idea of fire to which such reaction under these conditions would naturally give rise are sufficient without further objective stimuli to evoke a very pronounced and a very real emotional response of fear. To contend that social stimuli serve only to intensify an emotion already excited is therefore a conclusion that does not seem warranted by the facts in the case. The emotion needs a focus, an objective situation regarded as its cause, it is true, but this can be suggested by memory as well as by perception and can be so elaborated and made concrete by the imagination that it lacks little in force or effectiveness, compared with some actual, perceptual stimulus. When it is recalled what a large part memory factors play in actual perception, this conclusion does not seem extreme or far-fetched. One of the

cardinal points in our whole discussion is that ideas no less than objects have a direct affective content. So far as this content is concerned, it is not a vital matter whether the idea is suggested by some objective situation perceptually apprehended or whether it comes from memory suggested by the action of others.

As an example of this power of an idea unsupported by any perceptual data except these social ones to control the emotional responses and actions of those thus interstimulated, I cite an instance from an article in the *Atlantic Monthly,* entitled "Collective Unreason," by Agnes Repplier.

> More recent and more incredible was the conduct of the peasant population of the village of Tarnov on the Dniester. In 1887 a census was ordered. By some mysterious process of reasoning, the inhabitants of Tarnov associated this census with the approaching reign of Antichrist, an event never remote from the illiterate Russian mind. To avoid being classified as subjects of the lord of evil, the men of the village dug deep pits into which the women and children and old entered, and were buried alive. The survivors were then interred and helped heroically to fill up their own graves. Finally, the last man took his place with the dying and the dead. The census so far as the village was concerned, had no names to enter, and Antichrist was cheated of his prey.[1]

Such extreme instances as this are fortunately rare, possible only where ignorance is dense and where emotions are responded to at their face value, but they are rare only in degree, not in kind. Collective resentment or anger, collective fear, collective excitement, collective bravery, collective enthusiasm, collective religious emotion, collective foolishness, are matters of daily experience. In all of these there is a process of emotional intensification by interstimulation that is too obvious to be mistaken, and too palpably the result of some new factors to be adequately explained by the simple principles

[1] *Atlantic Monthly,* Vol. 140, No. 6.

of perception. The effects are at times so tremendous, as in the case cited above, that they seem to defy explanation. It seems more a case of madness than of normal mental reaction.

There are one or two general conclusions that are illustrated in the instance above that may be regarded as typical. In the first place this can hardly be regarded as a case of pure emotional contagion such as McDougall supports in his theory of crowd reaction. Emotional infection there was, and interstimulation, but it was not due entirely to the marks of emotional excitement manifested by others. The sight of two men fighting does not cause a general *mêlée* among the spectators. And so the sight of some of these benighted, superstitious Russians voluntarily taking their place in the grave to be buried alive would be more productive of fear and horror to the normal individual than it would of a tendency to do likewise. The mere outward expression of an emotion is suggestive and stimulating but it is not enough. Among the lower animals as in a stampede of cattle such may be the case. But in man an emotional stimulus does not annihilate thought but rather directs it. So in the case before us, without the background of religious devotion and fidelity, and without the idea of Antichrist, all the emotional excitement and interstimulation in the world would never have accounted for the actual results. The great danger of all emotional excitement whether fear, anger, jealousy, envy, love or hate is not pure emotional control but perverted thought, inadequate premises, failure to consider other aspects of the problem and to feel the force of opposing arguments. The intellectual processes of the mind are not so much inhibited or abrogated as they are misdirected and misapplied. This same perversion we have said is characteristic of the mental disorder known as paranoia. Even a raving maniac has

reasons for his actions, and so does mankind even in such tragedies as in the case we are considering.

This *ex parte* thinking it will be recalled was given as one of the major attributes of all emotional excitement. It represents a basic form of mental reaction, a process by which the emotion receives for the time being a justification, a sanction, an authority that in fact it does not possess. Thus even such extreme instances of irrationality and grim tragedy as that before us can under this explanation be understood. It was not sheer emotional contagion or interstimulation, but these plus a mental response in the minds of helplessly ignorant, intensely excited individuals.

Such a disorganization of the mental machinery is seen not only to make possible, but strongly to favor just those extreme types of action that are typical of crowd phenomena. The stronger the emotion the more pronounced the effect upon the intellectual consciousness, and the more disorganized the intellectual consciousness, the more the individual is at the mercy of the impulsion toward which the emotion leads. The reaction, however, is not due to some mysterious impulsion of emotion independent of the intellectual consciousness, but rather results from a perturbed and disorganized intelligence that confuses cause and effect and therefore arrives at conclusions that are onesided, ill-balanced, irrational, and not infrequently immoral. Judgments are formed, inferences are made but upon inadequate grounds.

Furthermore, the "drive" that accompanies, or expresses the emotional response is far more intense than it is with intellectual conceptions or propositions. That regard for, and response to signs of emotional excitement in others is the elementary fact underlying gregariousness is a conclusion difficult to escape when the facts of biological adaptation and of mental evolution

are considered. Susceptibility to expressions of fear in others may be no less valuable to the individual than the response to his own perception of danger. The two responses will obviously subserve the same purpose. To utilize the experience of others more and more is the way of safety, of avoidance of danger and disaster for the individual innocent of experience and of the ways of the world by which he is surrounded. Knowledge is valuable, but knowledge is not always available; under such conditions the active response to the reactions of other, older members of the species is an invaluable substitute. Responses to emotional expression are moreover urgent, imperative ones that admit of no delay; intellectual inquiries, both theoretical and practical, can be postponed. There are good reasons also for believing that a response to emotional stimuli both in the child and in the race antedate intelligence as a means of adaptation. Thus the child learns to smile and laugh in response to the smile and laughter of its mother, long before it can respond to the relationship that produced this reaction in the mother.

The lower animals also respond to fear stimuli before they can know anything of physical injury or death. This being true there is a primacy, a potency in these signs of emotional excitement in others that ideas only acquire with long experience and may indeed never have. Social stimuli of this particular form, that is, of an emotional character, have a tremendous appeal, an appeal that in the average individual is almost irresistible.

There is in psychology to-day a tacit assumption, not wholly justified either by facts or by results, that all forms of human behavior can be explained by a consideration of the stimuli that excite the response. S R is a magic formula that is to unlock the mystery of most, if not of all that man does. A closer approximation to the truth would be to say that an explanation of human

behavior cannot be found without some application of this formula. So long as human behavior is the subject of psychological investigation, and so long as man is stimulated from without, so long will this formula indicate a useful and even an indispensable standpoint from which to approach the problem of psychology. There is, however, a danger in adopting such a formula as an infallible guide to truth. It tends to lay the stress upon the stimulus and the outward result and may pass over too hastily all the intervening processes which may indeed be determinative. This is, in fact, the cardinal weakness of behaviorism. But the stimulus is the natural starting point for the explanation of any reaction social in its character. This being true, it is worth our while to inquire as to the forms of stimuli involved in the social reaction we are now considering.

Allport in his *Social Psychology* has given us the following enumeration of the objective forms of stimuli involved in this process of social or crowd reactions.[8]

I. Vocal Behavior
   Inarticulate Sounds
   Language
II. Facial and Bodily Behavior
   Facial and Bodily Expression in Emotion
   Facial Posture in Repose (Physiognomy)
   Bodily Posture
   Movements
   Gestures
III. Minor Stimulations (Non-Expressive Behavior and mere Presence)
   Sight of Others, Contact, Noise, Odor, Humidity, etc.

Accepting this list of objective factors as a fairly complete enumeration of the social stimuli whereby the phenomena of crowd psychology with its intensification of emotion is secured, it is evident that the results have

by no means been adequately explained. In our present discussion we shall not take articulate language into consideration as this subject has already been discussed. But in the case of the lower animals, and often with man, this spread of excitement is exhibited without the use of articulate language. Hence we can only conclude that some of these other factors either separately or combined do suffice to produce this intensification or engendering of various emotions in members of a group.

The question for which we seek an answer might be put in another form, a form that will serve to focus attention upon the facts that we desire to understand. Why is it, we would ask, that the actions or behavior of the members of one's own species have such a tremendous influence over the actions of any given individual of that species? Why do birds of a feather flock together, and why are they so responsive to the actions of their fellows? Why is it that man is to man the most interesting object in the world?

While now and then some person may renounce all interest in, and association with his fellow men, the rule with only here and there an exception is quite the opposite. In general, man is most interested in his fellow men, as literature and art and the drama and all forms of social intercourse so abundantly prove. So also man is tremendously influenced in his actions, customs, beliefs and ideals by his associates, as social psychology so impressively shows. For this basic fact, there must be some reason. That the result is secured through the forms of social stimuli enumerated above we are quite ready to admit, but from the most careful scrutiny of such a list the result could never be anticipated or foreseen. Which means that the objective stimulus alone is not a sufficient or a full explanation of the reaction that follows. Between the S and the R there is a series of factors and of influences that often has determinative value. And this

is true whether the matter be considered from a purely physiological point of view or from the introspective.

For these are after all but two forms of explanation for the same phenomenon. In the one case we speak of nerve centers, synaptic connections, and resistance, inhibitions, and final pathway; in the other our vocabulary will include such terms as intelligence, motives, memory factors, reasons, and decision. But in either case, these central factors must be recognized before we can understand the causal connection between the stimulus and the resulting reaction. Instead of resting content, therefore, with the innervation of the nerves that produce these striking social results and pointing to them as the cause, we prefer to raise the question of why and how have they gained the power thus to influence man as they do.

The answers usually offered to this inquiry are two. The traditional view contained and elaborated by McDougall is that it is due to instinct. Some animals, man included, are gregarious, and so respond to such stimuli reflexly, as it were. The connection between the particular stimulus and the appropriate reaction is innate and so functions with all the surety and effectiveness of any other inherent bodily mechanism. McDougall speaks, it will be recalled, of a special inlet whereby signs of emotional excitement in others excite the same instinctive response in the animals perceiving them. Thus manifestations of the play attitudes in two dogs will engender the same mental attitude and bodily reactions in another coming upon the scene. Signs of fear will produce fear in others, and so on through the list. The great objection to this explanation is that it more conceals it behind a name than it explains the phenomenon in question.

The other explanation suggested is that this reaction is a result of habit or experience acquired by conditioning. The individual throughout infancy and youth by the method of trial and error has conditioned the fear reac-

tion and the others to these new forms of stimuli. In other words, he has learned that these manifestations of emotional excitement in others are significant for his weal or woe and so has come to react to them in ways that are advantageous to himself. Thus the new forms of stimuli are conditioned to the emotional response and so serve to excite reactions formerly learned and established in response to objective situations. The mechanism, therefore, is easily understood for the process is one of the oldest and most common in all learning.

But whether this response to social stimuli is instinctive, or acquired through the principle of conditioning, it is evident that the explanation is partly determined by the central factors and not wholly by the nature of the objective stimulus. Upon this truth, we are ready to take our stand, asserting that this modification of the higher centers is directly involved and that they play an important part in determining the response that will follow. In some way, the conditions of the bodily organism in parts, and in ways remote from the particular stimulation, do facilitate or inhibit the given reaction and thus to a certain degree determine it.

Such considerations, however, are still too general, too abstract. In more concrete terms, how shall we understand the remarkable effectiveness of these social stimuli? Why should tone inflection, for example, or gesture, or posture, or facial expression, singly or together, grip us as they do, and have power to move us at times to the depth of our affective life? Music to some seems filled with cosmic values, and tone of voice with gestures may seem like grim tragedy stalking in our midst. How psychologically can these things be?

There is one condition in all of this that may throw some light upon the subject. We are susceptible to all such influences only as we have experienced before just these or closely allied emotional reactions. A coward is

more susceptible to crowd stimulation of fear than is a man accustomed to self-control. A person given to passionate outbreaks will more readily respond to excitement, to mob violence, than one who has never allowed himself to give way to anger. Children do not and cannot feel so deeply as adults the tragedy of Hamlet or of King Lear. In other words, it is necessary for these social stimuli to exert their full effect that they should affect minds accustomed to the emotional reactions that they tend to excite. Without this background of experience it is safe to say that all of these social stimuli would fail utterly to engender the emotions that they do. The law of exercise or habit therefore must be accorded a place in the explanation we seek.

Let us consider the matter from a slightly different point of view. If the appeal to habit is not sufficient just what more is demanded. In the first place, it should be recalled that man is for man the richest, the most varied, the most thought-provoking object in the world. Intellectually man is not only for himself but for others a *microcosm*. As such he may appear to be bafflingly complex, amazingly involved, and so contradictory in his attributes that it seems all but impossible to reduce his actions to law and order. For the cognitive consciousness he is still a first-class enigma.

But as an emotional stimulus man is for man the easiest object in the world to understand. Other men react fundamentally as I react. They, too, are cold or hot, pleased or displeased, are angry or envious, have hopes and aspirations, and I know first hand just what such experiences mean. Anthropomorphism is a common principle of explanation because it is the easiest, the most natural if not the only possible principle of interpretation of the mental life of others. Upon the general validity of this principle of explanation, its limits and dangers, we are not here called upon to pass judgment. Doubt-

less because it is so easy, so ready to hand it is often utilized where it properly has no place. But the underlying principle is one that we cannot escape, and it is highly useful and perfectly legitimate in many cases. I can, for example, know what color, or odor, or sound, or pain are as conscious states, only as I have experienced them myself. And what has thus been experienced, when properly checked up becomes at once a valid principle of interpretation and explanation. And so it is that because I have experienced emotional states not once but many times, and these are so impressive that recall is most easy and most certain, I am susceptible to signs of such reactions in others. This fact, it is obvious, does not in any sense do away with the principle of habituation, but rather supplements it by showing why the principle is so effective in this particular field.

Symbols are effective only as they signify or stand for something, and this content, whether it be intellectual or emotional in character, is to be found not in the object itself but in the mind or the past experiences of the person perceiving it. With this rich store at hand, the matter of stimulus is a simple one and the reaction will, like most organic responses, be multiplied or raised to higher power. These social stimuli like objects and situations that have been previously experienced are at best but symbols, signs, cues, that initiate the reaction, but do not explain it any more than the match explains the explosion. If the instinctive theory be given up, experience is as necessary here as it is in any other form of mental reaction. The child without experience does not enter emotionally into the full import of the situations that these social stimuli signify.

The question as to the nature of the central reaction to these forms of social stimuli is one on which the evidence seems conclusive. The net result is an intensifica-

tion, if not an engendering *de novo,* of emotional excitement and a concurrent disorganization of the higher cognitive processes. Crowds are characterized by an increased capacity for emotional reaction and by decreased ability to use intelligence and reason, the degree of modification depending upon the nature and degree of emotional stimulation. Whether the theory advanced to explain these phenomena be that of instinct or of habit, the fact stated stands. In favor of the latter theory, we may point to a long list of experiences in which tonal inflection and visible bodily expression are more important than words in giving the child the correct clue to the state of mind behind them. In countless cases, the tone of voice and the gesture, not the word itself are determinative for the reaction of both dog and child. And on the stage the fine art of acting consists not simply in clear articulation, but in control of voice and of gesture. The possibilities of emotional stimulation through these means are thus tremendous.

Now in a crowd these forms of emotional expression are not feigned, but real, as real, that is to say, as actual emotional excitement can make them. When it is recalled what a large place experiences of this sort play in the normal life of the child and youth, it is not difficult to understand why reactions to such expressions may be mistaken for native reactions. They are learned early and they are practiced repeatedly. Not only do these manifestations of anger, or fear, or good will, or curiosity, or excitement manifest themselves in tone of voice, in variations in speed, in intensity and in quality, but both the visible and the auditory expressions are soon found to have very palpable and pronounced effects for the weal or woe of the one perceiving them. For in the individual first showing such signs, there is such connection between these signs of emotional disturbance and

practical behavior that the association between the two is inevitable. The emotions, we should not forget, are means of adaptation designed to secure prompt, vigorous, and, if need be, even frenzied action to escape some imminent danger, or to secure some positive good. Immediate effectiveness is their prime purpose, not the sureness, the balance, the deliberate response that comes with knowledge and experience. In other words, the reaction itself is emotional, not reflective or judicial in character, and it leads to the same type of response in the individual beholding it in others.

The arguments for this position are many and convincing. There is no need for elaborating them in detail. We may, however, consider one of them briefly. Since suggestibility is very generally regarded as a principle underlying crowd phenomena, it will be of interest to inquire into its psychological character. That suggestibility is more a matter of emotion than intelligence is a conclusion upon which psychologists of widely different points of view are in essential agreement. McDougall's definition is as follows: "Suggestion is a process of communication resulting in the acceptance of the communicated proposition with conviction in the absence of logically adequate grounds for its acceptance." [4]

Allport says: "Suggestion is a process involving elementary behavior mechanisms in response to a social stimulus: the nature of the process being that the one who gives the stimulus controls the behavior and consciousness of the recipient in an immediate manner, relatively uninfluenced by thought, and through the method of building up motor attitudes, releasing them, or augmenting the released response as it is being carried out." [5]

And Bernard writes that "Suggestion occurs when any

[4] McDougall, *Social Psychology.*
[5] Allport, *Social Psychology.*

relatively uncritical and immediate response occurs to a stimulus by means of behavior mechanisms which have already been prepared." [6]

While the emotional character of the resulting reaction is in no one of these definitions distinctly asserted, its nonintellectual character is asserted or implied in all of them. The expression "with conviction" and the "immediacy" mentioned in the last two definitions are more characteristic of emotional reaction than of cognition. In suggestion, we get our feeling of truth and of certainty, not from inner logical processes, that is, from thinking, but directly from the signs of acceptance on the part of the speaker and from the acquiescence of those around us. The whole process of crowd influence is opposed to the method whereby intellectual judgments are formed, but conforms perfectly to known principles of emotional excitement. It is of the very nature of emotional stimuli, as we have shown, to act immediately, unreflectively, and to secure action upon other than logical grounds. It may also be recalled in this connection that suggestibility is generally recognized as varying inversely as the amount of information at hand, and as the general intelligence of the subject.

And finally, we would call attention to the fact that the characteristic attributes of crowd activity, impulsiveness, lack of judgment and of self-restraint, irrationality, tendency to go to extremes, lack of balance, credulousness, destructiveness, irresponsibility, lack of consideration for the victims, etc., are just those attributes that follow naturally if not inevitably from intense emotional excitement. If the essence of intelligent action is foresight of consequences and adaptation of means to ends, and greater intelligence depends upon an envisagement of the full consequences of the act, and if the essence of an emotional response is concentration upon the one end that

[6] Bernard, *Introduction to Social Psychology.*

will give expression to and satisfy the dominant emotion, and if this is secured by a contraction, a concentration of consciousness, there can hardly be any question as to the category to which crowd phonemena belong. Explain the facts as you will, by the principle of summation of stimuli, or as a result of previous experience through conditioning, or by instinct, the facts are what they are, namely, a pronounced intensification of emotional response. This does not mean that the mental reaction is exclusively emotional, that ideas and even judgment and inference have no place in the process. It does mean, however, that the intellectual machinery is disorganized, and does not function with its accustomed efficiency, that there is an exclusion of associations that should be considered, and that judgment is hurried, prejudiced, biased, and ill adapted to secure ends that will win even our approval when the emotional intensity is reduced to normal proportion. Intelligent action is man's highest and best method of adaptation, and while man is not at his best more than a fair proportion of his time, he is at his worst when under some primitive emotional excitement that is intensified by the manifestation of a like excitement in others.

The social stimulation of the emotions, therefore, the direct effect of the perception of emotional excitement in others, is distinct enough and characteristic enough to be regarded as one of the principal forms of emotional excitation. It subserves two important functions, namely, it serves in many cases as an admirable substitute for the direct objective stimulation of the emotions through the perceptions of situations from which the given emotion would naturally arise. Thus, expressions of fear in some individual or group serve to excite the fear reaction in other members of the species who may not have perceived the original cause of the alarm. In man this is unquestionably complicated by the presence of ideas and definite

associations but it is a factor here no less than in the lower orders of life. This mode of excitation it is obvious is more common and more useful in species that are gregarious.

In the second place it serves to secure the advantages of coöperation and group solidarity from the primitive reactions of the lower animals to the broad and most comprehensive associations that men have formed. When an aggregation of individuals is motivated by different emotions they are in the worst possible condition for coöperation even toward the ends that are vital for their welfare. Given the same logical premise unweighted by an emotional component, and men's minds will come to the same conclusion with unvarying uniformity. Let these same premises, however, be fraught with emotion and the result no one can foresee or foretell. A Covenanter and a Dissenter, a capitalist and a communist, a patriot and a traitor, a voluptuary and a saint are almost as irreconcilable as two contradictory propositions. In fact, it is scarcely too much to say that the various social organizations that characterize our modern life could not function and probably would not exist were it not for the bond of feeling, common aspiration, common evaluation, common hopes that members feel for the objectives for which such organizations stand.

That there are disadvantages and serious disabilities resulting from such methods of social control, with the excesses and single point of view, is a fact that none can gainsay. However, this in no way militates against, but rather argues for the fact that we are interested to stress. It is further evidence also for the conclusion that we cannot escape, namely, that emotional reactions everywhere need the stabilizing, the broadening, the enlightening, the guiding influence of intellectual insight and reflection if these evils are to be avoided. And in no place is this more difficult to secure than in regard to man's relation

to his fellow men. Here prejudice is most intense, here emotions are most easily and most intensely aroused, here conflict of interests and of purpose is most direct, here custom and vested interests are given the strongest sanctions, here therefore emotions tend to rise most actively and to control man's actions most exclusively. Here, therefore, is where progress has come most slowly, where reforms meet most opposition, where man has failed most flagrantly in living up to the definition that he has given to himself as being a "rational" animal.

But do not the evils of such a method of control point to the fact that sooner or later the affective component of consciousness is destined to be transcended, supplanted by greater intelligence? There are few reasons for thinking so. So far as can now be seen there is little reason to believe that the affective consciousness will here disappear any sooner than it will in connection with simple sensory pain or pleasantness. Count up all the advantages that result from susceptibility to common emotional reactions, common evaluation of objective ends, common enthusiasm, protection, social solidarity, and consider the fact that many of our social pleasures are greatly intensified by thus being shared, and it is evident that without this factor social life and new progress were both impossible. Against these solid advantages may be set excesses and irrationalities in many fields, but these are at the worst sporadic and incidental, not basic. The push, the drive, the urge from common evaluation and feeling is a constant, steady one save as these exceptions occur. War, fighting, lynching parties, outbreaks of race prejudice and the like, are not exactly abnormal, but they do not, except rarely, express the major objectives of man's individual or his social life.

There is a practical corollary that follows from the facts that have presented themselves not only in the present chapter but throughout the whole discussion. It

is this: before any idea or reform or indeed any material objective can get a hold upon human desire and thus take its place as an active force in the lives of men it must gather to itself, as it were, a halo of feeling, so that it promises or seems to promise satisfaction for some felt desire. And this must be felt and believed in by every one whose energies are to be enlisted in its behalf. Thus have men contemplated every object for which they have striven: honor, fame, wealth, political success, freedom, social leadership, as well as the more material objects that constitute the outward marks of our present civilization. The law is universal in its scope and thus holds true for every end and object for which men strive. How to present the idea so that it will appeal to the desire of mankind is the great objective of the reformer. This is propaganda. Even heaven itself, whether for Moslem or Christian, is pictured as the place of the heart's desire. Believed in sincerely, it produced the saintly life. Doubted as it is to-day, man finds the locus of his desire, the object of his striving in more worldly pleasures and ends.

Normally, however, man is in fact a social, as well as an individualistic animal. In his individual life he needs and finds an incentive to certain reactions in the perception of various objects and situations through their effectiveness as an emotional stimulus. But as a social individual made to live with, and to coöperate with some of his fellow beings, he also needs and finds an incentive to such reactions not only in stimuli of the same sort, but also in the emotional reactions of his associates. How better, or indeed, how else could he be made so responsive to their reactions, their purposes and objectives, that he would identify himself and his interests with theirs. How otherwise could he, in fact, be social, except by being responsive to social stimuli? And if, as we have contended, an emotional reaction is the most direct, the most

urgent call to action, what other form of stimulation could be as effective as the emotional expression itself?

REFERENCES

Bernard. *Introduction to Social Psychology.* Chapters XIX, XX, XXI, XXII, XXIX, XXX, XXXI, XXXII.
Allport. *Social Psychology,* Chapters VII, VIII, IX, X, XI, XII.
McDougall. *The Group Mind,* Chapters I, II.
Bogardus. *Fundamentals of Social Psychology,* Part III.
Ross. *Social Psychology.*
Martin. *The Behavior of Crowds.*
Le Bon. *The Crowd.*

PROBLEMS FOR FURTHER STUDY

1. To what degree is suggestibility an emotional phenomenon?
2. What is the psychological nature of belief?
3. What are the most effective criticisms against McDougall's theory of an instinctive inlet for the various forms of instinctive and emotional expression in others?
4. To what degree does the biological argument of adaptation support the theory of a sympathetic induction of emotional excitement?
5. What are Shand's arguments in his *Foundations of Character* for regarding the several emotions as a more comprehensive organization of the mental life than the instincts?
6. What exceptional conditions must the theory of conditioning meet provided this theory is accepted as explaining social facilitation?
7. What are some reasons for thinking, as Allport seems to suggest, that social factors are only a form of contributory stimulation in emotional excitement? Does the discussion in the present chapter meet his argument adequately?

CHAPTER XII

THE ETHICAL EMOTION

It has now been several decades since the ethical emotion has received anything more than a passing notice from psychologists, and only seldom this in fact. The reasons for this are not difficult to see and the facts themselves speak eloquently of their effectiveness. In the first place, since James's famous chapter on the emotions attention has centered more upon emotional theory than upon emotional description which he so effectively discouraged by his statement that he "should as lief read verbal description of the shapes of rocks on a New Hampshire farm as toil through them again." Furthermore, as a result of the evolutionary point of view, attention was more often turned backward to determine their origin, than forward to their culmination. Then with the dominance of the instinct theory, there were none so bold as to claim an ethical instinct, and as a consequence this topic again escaped discussion, except perchance to show how it might be rooted in the parental and the gregarious instincts. And finally, so far as ethical discussion is concerned, this is a phase of philosophy and psychologists have been trained to avoid all metaphysical discussion on pain of losing their status as real scientists.

As a matter of fact, however, the ethical emotion is fair game for the psychologist, provided he equip himself with the proper weapons for the sport, and take reasonable care as to what part of the quarry he aims at. It is true that there are few problems that so readily lead

to metaphysical entanglements, and so frequently lure the psychologist out of scientific jurisdiction into the bogs and morasses of philosophical speculation. These, however, the careful hunter avoids and there still remains legitimate sport for even the most "hard-boiled" psychologists. If the ethical reaction is anything at all in the way of consciousness with certain affective attributes and qualities, and if such modifications of mind in any way affect conduct and behavior, it is difficult to see why with all its dangers and disabilities it should not receive the same analysis and exposition that are accorded to the simpler forms of mental reaction. To deny it psychological analysis because it is sometimes a matter of philosophical speculation, or to give over the attempt because of its complexity, or to neglect it because it is one of the latest and highest manifestations of the affective consciousness, would be a procedure that could hardly commend itself to the true scientific spirit. Furthermore, it might conceivably be a wholesome exercise to forget for the time being the pit whence we were digged, and take a good look at those qualities of mind that other ages have stressed with possibly clearer vision than our own.

In our discussion of the affective consciousness, the ethical emotion can justly claim a place, not only for its own inherent significance, but because it has relationships to other forms of this type of mental reaction too intimate to be ignored. We dare, therefore, to reintroduce the subject to modern psychology as a subject just as worthy of study and examination as is the action of a white mouse or a rat or other subjects usually accepted without prejudice. We shall attempt, it is needless to say, to avoid being led from our chosen path by simply refusing to follow trails that too obviously lead toward forbidden territory. Moreover the subject of man's relations to his fellow men and the feelings that are thus aroused comprehends a vast number of relationships too

important both practically and emotionally to be overlooked in such a discussion as we have undertaken.

With the breastplate of psychological righteousness thus firmly secured, and the pen of a true scientific spirit in hand, we raise the question first as to the stimulus that called forth this feeling of approval or disapproval. If we confine our attention to the judgment of enlightened thought, passing over the long stages of groping and ignorance and superstitious belief, it can be affirmed that the occasion that gives rise to this reaction is the action or behavior of a free agent, that is, some person assumed to possess the power of choice and of self-control. In other words, we do not ascribe moral quality to the actions of babes and imbeciles and of the lower animals, however helpful or harmful their actions may be. Morality implies the capacity to foresee consequences, to choose the better or the worse, and to withhold or to initiate actions leading thereto.

This in itself is a highly refined distinction, and might well seem far too abstruse to be a practical basis for the moral judgments that men habitually and so easily pass upon the actions of their fellow men. All that we are contending for is that this is the logical postulate for ethical approval and it is quite true that man can go a long time and far, before such implication comes to consciousness. The matter, therefore, is not so difficult nor so disconcertingly abstract as the statement might lead us to suppose. Need for making the distinction was avoided in the medium and lower stretches of thought by assuming that not only men, but even children and the lower animals, were possessed of capacity for such judgment, and that their acts as well as those of men were praiseworthy or blameworthy. It has not been many decades since a formal trial of a swine for killing a child was held in one of the most enlightened countries of Europe.

But reflective thought has become more discriminating

and when logical and most clear in its judgments ascribes moral praise or blame only under the conditions named. Of the process by which this modification came, we must refuse to enter into a detailed discussion. The story is, in fact, the long tale of human development. Suffice it to say, that it was an intellectual achievement of the highest order, and intermediate stages are found, both in the history of the race and in the normal development of the child. Both practically and reflectively to-day man has come to distinguish between acts that have real moral import, and habits, customs, and conventions that are morally indifferent. In the lower stages of development such distinctions were not made but customary modes of actions, the *mores,* were all approved and all equally moral. Power of intelligent foresight, mental acumen, habits of analysis, and capacity for self-control, therefore, mark the conditions under which we ascribe real ethical character to the acts or to the agents involved. We do not blame the ocean for drowning our friend, or the storm for the havoc it wrought. We do not attribute guilt to the car, but to the driver, even when we libel the car for illegal uses. Blame or guilt, it is needless to say, may be of all degrees, the maximum being imputed where the act is willfully and voluntarily performed with the evil consequences both foreseen and desired.

What, then, is the particular significance that attaches to the fact that the ethical consciousness is aroused by the conduct of human agents? Both in the development of the race and of the individual such a distinction is comparatively late in its differentiation. The *mores* of a people are all approved ways of acting and in early times *mores* were equivalent to morality. But later, distinctions of quality and of value arise, and some of the customary ways of acting are approved on deeper grounds and some are seen to possess no real moral significance. Qualities

like courage, truthfulness, tribal loyalty, and helpfulness gain moral sanction, while other customs are seen to be nothing more than habitual ways of responding to daily situations. Such a differentiation from the logical side bespeaks a real discrimination that must be regarded as intellectual in its character, unless perchance it may be due to psychological factors that render superfluous such refined processes of thought. That is to say, it is still possible that the ethical reaction is to be explained as nothing more than the process of conditioning, only applied in this case to a special stimulus and to a particular form of emotional response. To this phase of the subject we must now turn, and endeavor to ascertain whether ethical judgment is in fact evidence of a highly refined type of intelligent judgment, or whether it is simply a form of emotional reaction gained largely through social intercourse, and unreflectively.

We can perhaps best approach this subject by noting certain traits or attributes of the ethical reaction and then seeking for an explanation for what is distinctive in this mental attitude. The leading attribute of the ethical reaction is a feeling of obligation. I *ought* to do this, or I ought not to do it. While we use this term in situations that are not strictly ethical, still it has in this latter connection a forcefulness and an inherent, qualitative character, that is, if not strictly characteristic, at least expressive of the essential attribute of the ethical reaction. You ought doubtless to appreciate Beethoven more than jazz, yet there is in this æsthetic use of the term something less than the obligation that you are under to refrain from cruelty, or to show mercy. Failure in the one case marks an intellectual or musical defect, a defect, however, more deplorable than culpable or blameworthy. It is in the same category with other human weaknesses, and therefore, does not merit or receive the same positive condemnation that moral faults receive. If you do not

choose to carry your musical education to the point where Beethoven seems incomparably rich and jazz inexpressively vapid and inconsequential, that is your affair. It is more designed to call forth pity than blame. But the same freedom of choice is not granted to the individual in matters pertaining to conduct that is called moral. While we may not be disposed to go so far as did Kant and say that morality is a categorical, that is to say, an absolute imperative, we can see all around us that in matters of moral or ethical import, the obligation resting upon the individual is regarded as so pronounced and so connected with social welfare that it may properly be enforced with whatever sanctions and penalties are necessary. Something of this obligation the average individual comes to feel and we may properly inquire as to the process by which it arises.

There is another characteristic of the ethical feeling that merits attention from the psychological point of view, namely, the transition from objective sanctions to subjective ones. Customs and conventions, we know, are enforced by various objective means, by taboos, by approval and disapproval, both direct and indirect. And at a certain stage, these are the sole effective test of moral values. These still persist to-day, not in superstitious beliefs alone, but are crystallized in laws and regulations of various sorts. All of this is plain enough psychologically but to pass from this stage where penalties are inflicted and standards are established by custom, to that highest stage of moral status where standards are subjective and still are more absolute than legal enactments, and where one's own opinion and belief has more authority than the voice of society, this is a transition not easily understood, or explained. And yet something of just this sort is found where man has attained moral maturity and his intellectual majority.

A third attribute of the ethical reaction that should be

noted is a feeling of basic importance that pertains to ethical distinction. While we are inclined to forgive man his mental defects and shortcomings, and while we attribute little value except economic worth to various degrees of sensibility, there is a general belief that in some way ethical distinctions are basic for human welfare. Lack of breeding or good manners is a personal matter, and while we think of the person wanting these as boorish, and as evidence of lack of culture or refinement, and attribute lack of appreciation of literature and of art to defect of education that a refined and educated person should possess, moral faults in a far deeper sense are blameworthy, and so far as the causes for this are personal, even demand something more than disapproval and condemnation on our part. To understand the ethical emotion, some explanation must be found for these most outstanding attributes. We shall take them up in order.

The feeling of moral obligation is our feeling of inner compulsion and in its highest estate is a subtle, but tremendous affective experience. When it is regarded from the point of view of its content without its genesis or development taken into consideration, it is little wonder that it called forth from Kant those words so out of keeping with the modern point of view:

> Duty! Thou sublime and mighty name that dost embrace nothing charming or insinuating, but requirest submission, and yet seekest not to move the will by threatening aught that would cause natural aversion or terror, but merely holdest forth a law which of itself finds entrance into the mind, and gains reluctant reverence (though not always obedience), a law before which all inclinations are dumb, even though they secretly counter-work it; what origin is there worthy of thee, and where is to be found the root of thy noble descent which proudly rejects all kindred with the inclinations; a root to be derived from which is the indispensable conditions of the only worth which men give themselves.[1]

[1] Kant, *Theory of Ethics*, Abbott's translation, p. 180.

Without attempting to find justification for Kant's grandiloquent formulation of the inquiry or to trace the logical pedigree of a feeling that is in some of its expressions as majesterial as he claims it to be, we shall be content for the time being with the more humble task of looking for its psychological origin. Whence, then, comes this feeling of obligation in the average human individual? The most obvious source to which we can refer is the universal fact of social approval and disapproval. Rare would that day be in the life of any child when occasions for approval or disapproval were wanting for many consecutive hours during their waking life. Approval and disapproval are basic facts in every child's experience, and are inescapable. In a world as new for him as if it, not he, had just been created, and filled with potentialities for his weal and woe, to say nothing of established ideas and vagaries of his elders, it is his to learn what can be done with impunity and what transgresses both the principles of his own well-being and the beliefs and desires of his elders. Expressions of approval and disapproval, both direct and vocal, and indirect in codes and customs, are the voice of the Great Society that he cannot escape or avoid. Moreover, it is often something more tangible than voice, and more stinging than words. Penalties of some sort are as certain as the prohibitions themselves. Thus not only the practical distinctions of harmful and beneficial are soon established, but sooner or later, praiseworthy and blameworthy, good and evil, proper and improper, right and wrong, must dawn upon the mind, if not by intellectual discrimination, then by the slower process of trial and error or by repeated experience and conditioning.

Thus at first any code or custom that is socially approved or disapproved will be, nay, it even must be accepted as praiseworthy or blameworthy. And every penalty, every experience, by which this approval or dis-

approval is expressed emphasizes its importance, and adds to the feeling that one is under some obligation to observe it. The fact of a repeated association between the act itself and the approval or disapproval both voiced and manifested in conduct is such that the receptive mind of the child and youth cannot fail to accept the results as expressive of a relationship that seems in time as immediate and as certain as conditioning can make it. The feeling of *ought,* therefore, means psychologically the feeling of blameworthiness or praiseworthiness. At least, this is what it signifies at its inception. It is possible that with more experience and with added powers of reflection the concept of obligation may take on new characteristics and attributes.

At first thought, it might seem from what has been said that the sense of obligation might be affixed to any sort of action or experience. There are many who hold to just this position. Relativity was applied to ethical law long before it was to the law of gravitation. The truth is that we do begin on just this level. The child accepts uncritically the opinion and standards of his intellectual diet with even less regard to its purity and cleanliness than he shows toward his physical regimen. But this is the uncritical and unreflective stage of childhood. Train the mind to seek causes for natural phenomena and to interrogate his elders for explanations of the everyday events of his life, and sooner or later social problems also must receive their justification. Rational inquiry and demand for explanation may be even more urgent in regard to social phenomena, for these are problems that touch his daily life often in a most provoking way. But this, I know, is but an ideal statement of the case, and while it does mark the path of progress, not all who profit by that progress are moved to seek for its explanation. As a matter of fact, *right* and *wrong* remain for most persons little more than a tacit acceptance of the

standards that their particular group inculcates, and are but rarely seen to be prime conditions under which alone society can exist. Who but students of ethics even attempt, except in the most incidental fashion, to rationalize these standards or to justify the ideas that are regarded as ethically praiseworthy. But the impression gained from hearing certain forms of conduct praised and others blamed does become crystallized into a perfectly definite attitude even though its roots and sustenance may be altogether unknown.

To pass from the stage of customary morality, that is, the stage where the ideas and standards are accepted as a matter of social inheritance, approved by the individual because they are approved by his associates, to the stage where insight and rational considerations are determinative of the approval received, is to make an advance both intellectually and emotionally that is almost revolutionary. To accept an idea or a code of conduct ready made, and to believe in its validity and authority because of social approval and from suggestibility is one thing, but to evaluate critically such ideals and standards and to base your judgment and belief upon your own reflective insight of the issues involved, is quite a different matter. It is the difference, in fact, between receptivity and creative thinking, between mental childhood and maturity, between uncritical suggestibility and mental independence. To form your opinion for yourself implies analysis, comparison, weighing of evidence and of values, processes that mark indeed the acme of intellectual acumen and power of abstract thought. And the emotional reaction is here commensurate in importance with the intellectual, for the emotion now becomes dependent upon these intellectual considerations for its logical justification.

We have said that the change from customary objective standards of conduct to subjective personal ones is a change of tremendous reach and import. And so, indeed,

it is. However, it is not a change confined to the field of ethical relationships but applies to every field of intellectual investigation. Even the multiplication tables are accepted by the child on authority, the authority of the teacher or the text. Later when his comprehension of numerical relations has developed he finds in them a necessity and finality that they could not otherwise possess. So also the scientist upon a few data sometimes sufficient, sometimes insufficient, proceeds with calm assurance to lay down laws that even nature must hold inviolable. Not the opinions of others but logical relationship which he himself discovers or accepts is now the test of truth. Strange would it be therefore if man did not apply the same method to matters of ethical import that he follows successfully in other fields of intellectual inquiry. The change is not anomalous therefore but typical.

The road between these two stages is a long one, both in point of time and in distance traveled. We have spoken, too, as if the promised land of intellectual independence and rationality had already been attained and possessed. This, however, is by no means the truth of the matter. We are still on the way, making progress doubtless, but no nearer complete attainment here than we are in connection with any other one of our ideals. But the point of view has been changed, and we do have a new outlook over the field and we can at least see the direction in which our advance must be undertaken.

Between these two extremes of ethical approval, there is a transition stage worthy of remark, a stage that leans more and more toward the latter point of view. I refer to this inner state of mind commonly known as conscience. It marks a transition stage because while its content to begin with is largely a matter of custom and objective conditions, it is still felt to be a form of subjective approval and determination. The impulsion, whether positive or negative, is felt to come from within.

There is to-day under the influence of the evolutionary point of view a serious discrediting of conscience as a guide to conduct. Once regarded as an infallible criterion as in the case of Socrates and thousands of others through the ages, it has come under the influence of sociological and psychological investigation to be regarded as nothing more sacred or valuable than the voice of social approval crystallized in the minds of individuals by penalties inflicted, and by approval and disapproval both vocally inparted, and expressed in whatever code of sanctions are in vogue in this particular system of social control. Conscience, therefore, is dependent for its content upon customs and these are so varied and relative to economic condition that it is impossible to find anything positive or inherently significant in this inner guide to conduct. The summated effect of social approval and disapproval for these codes is sufficient to explain its force and apparent finality without the intellectual factor of truth or logical validity. That there is a stage in the development of every individual and social group where this is true we are quite ready to admit. Likewise there is a stage where food finding is the great and dominating factor in life. The great achievements of our civilization, however, are not to be evaluated in terms of this one end alone. Scientific achievements and the development of the æsthetic capacities of men are superimposed upon this basic economic need and become ends in themselves. In the same way when intelligence develops, thought and reflection are given to these social codes as truly as to the forces that underlie the physical sciences.

Conscience without thought or reflection is nothing more than custom and convention and as such is tainted with all the relativity that these social factors possess. But conscience reflected upon, subjected to the refining process of logical criticisms and analysis, may be as creative, as definitely logical and factual as are many of our

other scientific theories and hypotheses. Human conduct, and the moral effects of social codes and practices can be, and should be, the subject of scientific investigation as truly as are the reactions of objects in the more objective realm of the physical sciences. And for the intelligent individual, this investigation, not custom, will play the major part in determining the content of his conscience. Conscience, therefore, we regard as our inner feeling of approval or disapproval first fixed by the current codes of the social group to which the individual belongs, but later like other childish beliefs subject to a more or less rigorous examination and reëxamination in the light of all that the individual has learned of human relationships; relationships physiological, biological, psychological, sociological and even philosophical. In a word, what a man believes to be right or wrong is at first a matter of custom and tradition, just as all of his other ideas are. But a wider experience, and the capacity to reflect upon this conflict of codes leads the intelligent, progressive individual to look for some deeper logical foundation for the principles that are to guide his actions and his relations to his fellow men.

There is a question of some psychological importance, and one that bears upon the problem just broached, that here comes so near to the surface that we may pause to bring it to the light and pass briefly upon it. What, psychologically, are the differences between a belief that is well grounded in argument and in logical thought, and one that is based upon nothing more substantial than ignorance or prejudice or both? Certainly it is no news to anyone acquainted with human nature that information is not necessary for belief, or arguments for subjective assurance. If mental assurance and a feeling of certainty are the criterion of validity, it would be difficult to show wherein this feeling based upon logically adequate reasons is superior to beliefs that are warranted

only by ignorance that is colossal if not absolute. The inflexibility and bigotry of ignorant minds is proverbial. The reasons for this are not hard to see; the intensity or firmness of belief in any case is determined by two sets of factors, namely, the evidence in support of such belief and the presence or absence of reasons opposing it. To put the matter in a mathematical form: In any given instance, so far as intellectual considerations influence the matter,

$$\text{Strength of belief} = \frac{\text{Arguments pro}}{\text{Arguments con}}$$

The positive value of the fraction, it is evident, depends upon the size of the numerator, but no less upon the size of the denominator. Provided only the arguments against the belief are small, or for emotional reasons will not be entertained, so that the denominator approaches zero in value, even a small numerator gives a high value to the equation. It is a well-authenticated fact, moreover, that beliefs are never so strong, never so absolute, as in the age of innocence and ignorance. The beliefs of childhood, the first experience of romantic love, give us our ideals, and chiefly ideals that are adopted with complete *naïveté,* or in unquestioned faith. The real worth of such beliefs, however, is by no means commensurate with their apparent finality. The cocksureness and the bigotry of ignorance are a poor substitute for intelligence, as Socrates so effectively showed to the men of Athens. While the affective component of assurance and certainty may have been no greater in the mind of Socrates than it was in his victims, it was, in fact, probably much less, his belief was not so easily punctured as was theirs. But for the time being, and this is the tragedy of it all, beliefs without logical foundation seem not only absolute, but serve also to discount all arguments opposed to their content. The weakness of belief based on bigotry and

ignorance, therefore, lies in the fact that it is convinced that there are no arguments against the position it holds. The intensity of feeling involved rests not on truth or a true evaluation, not even in the number or force of the arguments it can marshal in its support, but in the fact that any argument unopposed seems convincing and is tremendously effective, as we see so impressively in hypnosis. The person whose belief is intelligent, who knows the arguments both pro and con, is therefore a more rational individual, is more social in his attitude and more tolerant of the ideas of others, and yet may have, after the evaluation of arguments both pro and con has been made, a clear balance either in favor of or opposed to the belief in question. But for sheer intensity of belief the palm must be granted to ignorance and to bigotry, not to intelligence. Opposing arguments that for any reason are not present in consciousness have for the time being no weight. And it is, as we have seen, one of the results of a strong emotion to serve as a selective principle in determining the associations that will rise to consciousness and be thus entertained and accepted. Under these conditions, a positive idea, even though in itself inconsequential, can produce an amazing amount of assurance.

Even the most absolute and implicit faith in conscience therefore may be found for ideas and ideals that can muster for their support neither logical nor practical arguments of any force or value. But conscience that is but a reflection of custom is not conscience at its best any more than tradition and superstition are intelligence in its final and highest estate. This is the *terminus a quo* not the *terminus ad quem* in each case. To trust conscience simply because the affective factors are intense or because it is traditional is unpsychological in that it confuses feeling with fact, and fervor with certainty. On the other hand, it is no less deplorable and erroneous to cling to the fallacy so characteristic of superficial thought

along these lines, that because conscience is not absolute therefore there are no valid standards of conscience or of conduct. As well say that superstition is as good as science, or fable as true as fact! In either case there is the same discounting of intelligence. That conscience is best, just as that science is best that conforms most closely to the facts of life, that analyzes most accurately, and looks most intelligently toward ends and ideals that can justify themselves upon the widest basis of fact and of laws and principles previously determined.

It is also well to remind ourselves in this connection that the determination of truth is not the function of feeling, but to secure action when once the facts, apparent or real, have been ascertained. Consequently, the certainty and the assurance with which ethical codes are accepted is no evidence of their validity or verity. Upon this intelligence must pass by means of other ideas and conceptions logically manipulated. This belief, however, like all affective reactions, does set the individual strongly, sometimes fanatically for the support of the act or code involved. Without belief in the social reform proposed, without acceptance of the verity of any religious faith, without subjective assurance in regard to the codes and social conventions and the ethical standards upheld, the whole social structure would fall to inevitable decay from indifference and nonsupport. A thousand times better the intensity of feeling, the fanatical extremes of religious and moral persecution, the blindness of bigotry, the errors and excesses of men striving ignorantly and inefficiently for the best, than the lifelessness, the deadening inertia, the blasting indifference of men who see, and yet who care not, and feel no incentive to act.

In answer to the inquiry proposed as to the superior significance that men attach to matters of ethical import, to moral standards and to conduct, the most obvious reply would be to say that they are so regarded because

these relate to matters that are of immediate practical import. Lying, stealing, arson, adultery, murder and all the other vices have some immediate deleterious consequence that all can see and may suffer, if they be not held in check by social restraints. Morality has to do with actions and ideas that count, that actually make a difference, that are pragmatically significant. Furthermore, there is to morality a social reference that gives to every individual in the group a personal interest in the matter. Bravery in battle is commended because he who gives way from fear exposes his companions to increased peril and odds.

In this respect, there is a marked difference between ethical and æsthetical distinction. For example, if I do not appreciate a symphony of Beethoven or get real enjoyment from looking at a picture by some master artist, that, you will say, is my loss. If I do not appreciate the value of honesty, however, or fail to have a proper regard for your property, the loss is more than likely to be yours not mine. And, if I enjoy what is crude, and unrefined and bizarre in literature, you from your superior height may hold me in disdain, but still no injury has been done to you. Rather I may have been the occasion for a feeling of self-congratulation on your part. But when my moral standards are lax, or undeveloped, or ignoble and base, my conduct reflecting these is also base, and my neighbors will inevitably suffer from my derelictions. Society, therefore, does have a direct active interest in the ethical standards and conduct of individuals, and it affirms this interest by ascribing positive praise or blame to reactions of moral import. Such, I say, we might regard as a sufficient explanation of the superior evaluation given to things ethical.

But this practical, objective justification that society to-day places upon ethical values is by no means the whole truth of the matter. What we are interested to disclose

is something of the inner process by which the individual comes to feel the superior worth of ethical values as compared with other customs and modes of reacting. To do so, it may help to call attention to some of the well-marked stages in the development of the more highly refined ethical appraisal that men give to certain forms of conduct. There is, first, the stage where approval and disapproval are accepted ready-made, as it were, from the social group. This is the stage of social domination as we may call it. Here the individual approves what others approve, and largely for this reason, and in the same way disapproves what others disapprove. Approval and disapproval are here nonreflective, uncritical, and even non-moral in the strict sense of the term. Custom and tradition, that is, the *mores* give the standard, and further justification is superfluous. If there is reflection at this stage, it is more in the nature of rationalization than of critical appraisal of the standard accepted. For the latter, a fund of ideas is demanded, and a power of analysis and of evaluation that the individual does not possess. Hence whatever is, is right.

While there are no well-marked boundaries between these various stages, we may mark the point for our second step in moral advance, where such practical advantages as we have outlined above are coming to consciousness more or less clearly. Here bravery, for example, is not so much regarded as a virtue of social significance, as it is a mark of manhood, and therefore, something to be ashamed of not possessing or exhibiting. While such traits are not moral virtues in the deepest sense they are marks of virility. *Virtues* are marks of manhood. Thus, not to possess them is to be open to ridicule more than to be subject to moral disapproval. "To be a man," means to be brave, to resent injury and to avenge it, to manifest the martial virtues more than the virtues of

peace. But these are admired, we say, more as marks of manhood than as real moral traits. The value of such traits of character is more felt than reflected upon. The approval is social and is accepted by the various members of the group, rather than justified by one's own thinking. They are, however, traits belonging to the individual and as such determine his standing among his associates. There is a moral advance in this respect, the worth of such action being regarded as characteristic of the individual, as evidence and attributes of character. Thus the individual becomes the object of approval or disapproval, and a standard, though withal not a closely reasoned and clearly rational one, is established, and plays a part in the appraisal set upon the worth of the person involved.

In its highest expression, this process is continued in the same direction, though with new concepts, new ideas elaborated and new standards evolved. Morality now becomes a subject to reflect upon, to analyse and to reason about. Ethical truth, like scientific, is a product of observation, of analysis, and of reflection, and comes, therefore, as a progressive attainment, a giving up of old conceptions and replacing them with ideas that reconcile differences and unify opinions that are apparently flagrantly at variance with one another. "What is true for the reason is right for the will" becomes the underlying postulate. All too slowly but nevertheless surely, reflection does count. What is once shown to be out of harmony with intelligent thought has received its death sentence, though the execution may be long delayed.

This, it is needless to say, is more a standpoint than a stage that is anywhere fully realized. Custom and tradition and opinion based on the most fragile arguments still abound. The influences of social heredity are scarcely less difficult to evade or to overcome than are the forces of physical heredity. Although primarily mental or

psychological they are not on that account subject to ejection at will. They have become so embedded in our ideas, our habits, our emotions, that they still influence our actions and our lives, long after we are ready to admit their illogical character. The moral regeneration of an individual or of a society therefore is the profoundest change that can take place in either case. Its difficulty is strictly commensurate with its profundity, and its importance with its difficulty. It means the fixation of interests and emotions upon new goals, allegiance to new purposes, new aims, and satisfaction in action and ends formerly regarded with the utmost indifference. Had it not been accomplished repeatedly, it might well seem practically impossible.

It is only in this final stage that the transition from objective to subjective standards is consummated and a new method of ascertaining ethical values is attained. Instead of looking outward for examples, for precedents, we now learn to measure conduct, both our own and that of others, by reference to standards that are logically, that is, subjectively justified. But the transition, like all transitions in organic life, was never at any ascertainable moment begun, and will never be complete. Neither is it something apart from man's other intellectual and practical interests. When man can observe reflectively, when he can analyse a situation, when he can think abstractly about other situations and problems, then he can and he will attack ethical problems as well as physical ones; then he will recognize social faults and errors as well as mistakes in his views of the physical world around him. Then will he learn also to ascribe a value to truth that error does not possess whether that truth relates to his physical or to his social environment.

Little by little, the change will come, not by some sudden mental revolution or advance; little by little, subjection to social standards gives way to more reflective,

more logical, more subjective ones. And with this new apprehension of the meaning of right and wrong, this clearer vision of moral standards and ideals, this deeper insight into their relation to man's practical social and mental welfare there comes an affective reaction that will make of the seer something of a reformer, and of the scientist, if not a martyr to truth, at least a zealous disciple and votary. As certain as this affective response arises, and commensurate with its intensity, there will come also an impulse to its expression in the matter of conduct to which it relates. Truth, even moral truth, as truly as odor or taste, or some intense emotional excitement, is an instrument of adjustment and as such enlists the affective consciousness in its support and for its active, wider application in the lives of men.

There is thus abundant reason for regarding the ethical emotion as a highly intellectual form of the affective life. In many respects it is the most abstract, the most complicated of the higher emotions. More and more it depends upon relationships that are as involved and as complex as life itself. Into it enter physiological, hygienic, economic, political, social, æsthetic, religious factors and any others that have a bearing either direct or indirect upon human welfare. Not only immediate but remote consequences must be foreseen and evaluated. And like every factor that affects his weal or woe, man's highest standards and ideals have an affective component, commensurate in value with their logical significance.

REFERENCES

Palmer. *The Field of Ethics.*
Dewey. *Human Nature and Conduct.*
McDougall. *Character and the Conduct of Life,* Chapters I to XII.
Coe. *The Motives of Men.*
Edman. *Human Traits,* Chapter XV.

PROBLEMS FOR FURTHER STUDY

1. What are the factors that differentiate the ethical attitude from the æsthetic?
2. What is the process by which the ethical has differentiated itself from the customary?
3. What are the chief dangers in an "Age of Reason"?
4. What is the relative value of precept, of example, and of ethical reflection in the formation of ethical standards?
5. What are the psychological reasons for the present revolt of youth against social customs and standards?
6. Does the venerable age of a custom indicate that it is useful or that it has become antiquated?
7. From the argument of the chapter should it be concluded that practical, or logical factors have most to do with the high esteem for ethical conduct?

CHAPTER XIII

THE ÆSTHETIC EMOTION

THE affective reaction arising from the perception and contemplation of beautiful objects has long been regarded as one of the highest forms of mental activity. In the older nomenclature this, together with the ethical and the logical emotions, because of their more intellectual character, was distinguished by the name of sentiments. But whether called sentiment or emotion, this feeling of approval and of value arising from the perception of beautiful objects is one of the distinctive forms of the affective consciousness and as such merits separate treatment in our discussion.

The investigation of the principles of beauty in its various forms is the subject matter of æsthetics. The object of such an investigation is to discover in works of art and objects in nature what are the principles, the underlying characteristics that give to an object possessing them the power to please the mind perceiving them, apart from economic and practical considerations. Like all scientific and philosophical investigation, it seeks for qualities and attributes that are universal in their scope and appeal. What are the differences between works of art, pictures, statues, novels, dramas, or musical compositions that possess a permanent power to please the beholder, and one, that while temporarily acceptable, is soon discarded and regarded only with indifference or disdain? Can the qualities, for example, be specified that make the works of Raphael, or Michelangelo, or Da Vinci, or Phidias, or Praxiteles, or Shakespeare, or

Goethe permanently valuable, while the works of others, which in their day were received with no less acclaim, are now of little more than an historical interest? The same problem arises, and even in a more impressive form in connection with music. What are the attributes or qualities that differentiate between the worthless and the immortal? Compositions which upon their appearance spread like wildfire over the nation in countless numbers are now forgotten, but the masterpieces live on and on. Nor is there evidence wanting for the assertion voiced by J. A. Smith at the last Congress of Philosophy held at Harvard in 1926, that in the realm of Art and Literature we find the highest and clearest expression of what the mind essentially is. If there is even a fair measure of truth in the assertion, it is clearly important that we follow the development of the affective consciousness to this crowning example of the mind's attainment.

The subject we have just outlined is a fascinating one, but our purpose and aim is not that of æsthetics. Our goal is more strictly psychological, and it may be stated as an attempt to discover just why the qualities and attributes that students of æsthetics have assigned as the essence of beauty have the affective value they possess. But first, a brief summary of the principal characteristics of the æsthetic consciousness.

When we compare the æsthetic reaction to that of the so-called emotions, there are some striking differences seen, and some that have for this reason a direct and an important bearing upon the theory of the affective consciousness.

In the first place we would assent to, and emphasize the fact commonly accepted that the æsthetic reaction is more intellectual in character than are the "emotions" as generally understood. There is some difficulty in getting this fact in its right perspective. For art, all art in fact, must present itself under concrete sensuous form and

it might be contended that the secret of its affective significance is to be found in these sensuous qualities just as the beauty of the rose resides in its color and its odor. If the sensuous attributes of art are essential, as in fact they are, why look elsewhere or further for the secret of the æsthetic reaction we are interested to explain? But such, we shall attempt to show, is not an adequate interpretation of the facts, although such factors must be regarded as having a place in the total result. Works of art and natural objects regarded as beautiful are as objective as those that incite to envy, or anger, or fear. As such they imply the same sort of perceptual activity as does the perception of objects that excite the more dynamic emotions.

But beauty that stirs the mind most deeply and creates the characteristic æsthetic reaction is not found when the appeal is purely sensuous. There is, and must be something more. How, for example, can one who knows nothing of the refinements of the Parthenon, nothing of the marvelous and subtle appeals made to the eye in symmetry and proportion, in the order and function of parts, who sees nothing in it of the expression of a free people, nothing of the significance of the sculptured forms of the frieze and of the pediments, how, I say, can we expect a refined or even an intelligent response to elements that have a history and a meaning as well as an obvious bodily form? Art, we insist, has meaning as well as form, and the æsthetic response is dependent not upon either one alone but upon both. Say, if you prefer, that art is both sensuous and intellectual, and even that the intellectual appears in the sensuous, but do not forget that the highest forms of beauty are found where the meaning or significance assumes the leading rôle.

When it is affirmed, therefore, that the æsthetic reaction is intellectual this does not imply that the bodily, sensuous factors are not present and are not essential.

Abstract art is a contradiction in terms and so does not exist. All that our statement means therefore is that the intellectual factor must also be present to satisfy the mind and produce the response known as the æsthetic emotion.

The distinction is one of proportion. It takes little intelligence and no great experience to get angry or to show fear or disgust. But to appreciate Beethoven, or Bach, or Da Vinci, or Michelangelo, or Milton some considerable training and judgment in these various fields of art are indispensable. There are, we say, in every work of art sensuous factors with their appeal to eye or ear. But these factors are only symbols, the outward form that must be enriched, interpreted, made vital and significant by material drawn from the experience of him who perceives the outward form created by the artist. No mental device, no method has yet been discovered whereby the symbols either of language or of art can automatically create in the mind of the receiver the thought, the imaginative response, the emotion that inspired them. Both language and art imply two minds, the giver and the receiver, the creator and the appreciator, and a weakness or deficiency in either can deplete and impair the response desired. Thus it is that even the greatest art is often all but meaningless to thousands who go unprepared to receive it. The artist in such cases has done his part profoundly and well: but without knowledge of the symbolism he has used, or without acquaintance with the principles of life and of the experiences which the painting expresses, the result must be just what it so often is, a casual glance, a failure to feel any real significance in the ideas and forms portrayed, a perplexity to understand why such art is esteemed great, or even why it exists at all. If beauty resided in the sensuous form as such this would hardly be the case.

The proper psychological method of understanding the æsthetic reaction is set for us by these facts. Certain

objective forms, some created by nature, some created by man, with their sensuous attributes are apprehended by perceptual activity, but through a process of mental enrichment or interpretation are felt to have an ideal content that gives rise to an affective response known as the æsthetic reaction. But the meaning, the intellectual content is found *in* the sensuous elements not above them. Thus the sensuous factors, the thought content, and the emotional factors are bound indissolubly together as truly as is the pleasantness with the rose.

That the present tendency in art is to lay stress upon the sensuous attributes, rather than upon the deeper elements of thought is a fact, which, though we may regret, is not outside our ken. And that the stimulus-response theory in psychology, a theory that stresses the importance of the sensuous, is the dominant point of view to-day we also fully recognize. And yet neither in art nor in any simple perceptual act can the total result be understood or explained apart from those central activities that we know first and best, if not exclusively in forms of conscious reaction. In any such reaction, there is an enrichment of the present sensuous elements by memory factors that is indispensable for any true perception. There is a selective addition that alone gives unity and meaning; there is an analysis that resolves the experience into its prime factors; and an interpretation of the experience in terms of general principles that gives it new significance by elevating a mere fact to the dignity of a *truth*. All of this is not independent of the sensuous factors in the work of art in question, which is the objective stimulus for the reaction. But there is also the process of mental enrichment, of interpretation, of realization of what is at best only symbolically expressed in the sensuous form. The sensuous form, therefore, is the starting point, but not the completion of the æsthetic reaction.

Again, the æsthetic reaction we have characterized as being calm, contemplative, sedentary. In this respect there is a striking contrast between this form of the affective consciousness and that of the more primitive emotions. Anger, fear, curiosity, jealousy, are inherently dynamic, impellent, stirring. They demand action imperatively. So long as the emotion lasts, the call is present and insistent. But in an art gallery and in the theater, seats are provided. And an armchair or a hammock is the proper environment for a story, even for the most exciting type. At the theater also, when scenes are being enacted that would in real life demand the most drastic intervention, either in the form of active participation, or at least by sending in a call to the police, the audience sits spellbound, all bodily movements inhibited or restrained. So in music, the more effective the music (that is real music, not jazz), the quieter grows the audience, the more the appeal is, not to the sensuous merely, but to the intellect and the less it is to the bodily responses of rhythm. The habit of entering the room where the Sistine Madonna reigns alone, with head uncovered and with silence enjoined, rests upon a correct psychological principle. Great art everywhere not only makes its appeal to the intellect, but great art when intelligently appreciated brings a great calm, stills for the time the more blatant calls of sense, and lifts the mind for the time to Olympus and to fellowship with the gods. What Greek art tried formally to accomplish, all great art does actually. Not without truth is the art of Phidias characterized as that of *serenity, repose.* His was the ideal of philosophic calm carried to the highest degree, because he was one of the world's greatest artists. Follow the lead of great art at any age and anywhere, and there will be found in no small measure something of the quality of mind which the Greeks and Spinoza re-

garded as the highest, and the ideal attitude toward life itself.

That there is a causal connection between the two attributes of the æsthetic consciousness that we have given is a suggestion that can scarcely be avoided. Considered from the standpoint of obvious bodily activities, the intellectual life is one of calmness, of contemplation. In thought we turn from active manipulation of objects through which facts are discovered to the consideration of relationships and principles that come, we know not how, from attention to and reflection upon such data. We turn from the outer world to the inner, as it were, and results here are usually better achieved when the voluntary movements of the body are inhibited. The calmness which the æsthetic response implies, therefore, may well be the calmness of reflection, of mental interpretation as well as of the æsthetic emotion itself.

Æsthetic value, again, is regarded as an absolute, something that is inherent in objects and yet a value that cannot be interpreted or understood in terms of the practical, economic interests of life. I recall a remark made some years ago by the most popular professor of English literature at Yale, that in his twenty-five years of service he had not taught his classes a single "useful" fact. Æsthetic value like the value of wisdom is above rubies, and the exchange thereof is not for fine gold, although as some see it, one of the imbecilities of mankind is the amount of gold that some are willing to exchange for some masterpiece of art. It is possible that we shall see as we go on that beauty and wisdom are more closely related than we are accustomed to think. But for the present we are content to contrast beauty with utility, and to assert that it is in some sense *sui generis,* and its value is not to be identified or confused with the values that the "emotions," for example, conserve. They are

practical; the æsthetic response has in it a strong theoretical element.

There is another major attribute of the æsthetic consciousness that must also be emphasized. While the "emotions" are intensely personal and specific, the æsthetic consciousness in contrast to these is impersonal, unselfish, and universal in its inherent constitution. When my anger or fear or jealousy is aroused, the *self* centers vitally as one of the chief factors involved. *I* resent some specific act, *I* fear some particular evil or injury, or *I* am jealous of some particular person. Take away the self from such situations, and the matter becomes altogether negligible. But in the æsthetic experience, reference to the self is by no means so vital or so urgent. In the one case, the self forges to the front, in the other, one finds not practical or personal reference, but more impersonal, universal truth. So closely in accord with fact is this statement that there is a suggestive point in defining art as the representation of some abstract and universal truth under the form of the concrete. The Mona Lisa is not primarily the portrait of La Gioconda. We care little for the exact lineaments of great men or of women unless they typify something more profound and universal than the mere form of another member of the human species. Raphael's Julius II is not significant primarily for historical reasons, but for artistic ones, that is, we see in the keen reflective expression an attribute of human greatness that is true of all ages and of great minds everywhere.

And so it is in every art and in every age. The pose, the serenity, the repose of the gods in the frieze of the Parthenon, the absence of childish excitement in the maidens and the horsemen, these were then and they are still to-day the marks of mental maturity, mental greatness. So they sit quietly, reflectively, more busied with their own thoughts than with the procession that was the greatest festival of the city. Calmness, apparent in-

difference to the outside world may come from ignorance or deadness of mind, or as the crowning attributes of the philosophic mind. But the blank expression of the idiot is never mistaken for the repose of a mind that has found its place in the universe. Ignorance, superficiality, is the blank from which mind and life deliver us; philosophic calm, repose of spirit is the goal toward which age and wisdom are conducting us. In a very real sense then the Greek artist in these sculptured forms found and expressed a truth of life for the ages, significant for every individual, a truth attested by a flush of feeling in everyone who apprehends its profoundity and vitality. And so we might find illustration in every art, in literature where examples in multitudes confront us. But the obviousness of the truth makes needless anything more than an appeal to the reader to supply examples enough to convince him of the fact we are stressing.

In art, therefore, two great demands of human experience are met together, namely, the appreciation of the concrete, the specific, the perceptual or objective world, and the desire for the universal, the abstract, the typical. Without the first, the intellectual seems like the imaginary, real in its own way, but tenuous, ghostlike, lacking the tang of the objective world; without the latter, it seems, too ephemeral, too insignificant, of too little worth to justify any emotional reaction. Great art must satisfy this demand for value. The trivial and the commonplace are not fit subjects for art on its higher plane. *Genre* sculpture in Greece, *genre* painting in Italy, marked periods of decline. In spite of all the technical perfection in such art, and it may equal or even surpass that of the greatest periods of art, just so far as the subject is trivial or commonplace, lacks significance, so far will such art fail to attain complete greatness. Content, as well as formal qualities are part of the complete work of art, and defects in either will mar and detract from what

might otherwise have risen higher in the scale of a full-rounded, satisfying, effective work of art. The formal qualities: color, drawing, perspective, harmony, and all the rest appeal to the eye, but content appeals no less to the mind, and why, it may be asked, should the mind be insulted, simply because the eye is gratified, or why should the sensuous qualities be overlooked because a great theme is chosen?

Such are some of the characteristics of great works of art that must be taken into consideration in arriving at a just appreciation of the nature and significance of the æsthetic emotions.

Thus far, we have been giving more attention to the content of art than to the sense qualities that give it concrete, specific form. But without form, that is, concrete perceptual form, there is no art, and these formal qualities as well as the abstract conceptual ones have their influence upon the affective consciousness. This quality of art is not less absolute, and is, indeed, of the same nature as the duality of body and mind. And as we have learned that both must be considered in psychology, so is it true that both are significant in the æsthetic experience. Art is found in various media, in colored forms as in painting, in language, in marble or bronze, in musical tones, and in masses of stone or wood as in architecture. Each art, therefore, has its own technique, qualities that arise from and pertain to the medium in which the ideas are expressed. That is to say, there are crude, and more refined, more adequate ways of expressing the idea or of using the medium chosen. There are, therefore, principles or laws in connection with each art that relate not to the content or idea expressed, but to the way in which the medium is utilized in expressing it.

The attributes of the æsthetic consciousness as they have been stated are somewhat abstruse but they are so from the nature of the reaction itself, not from any fault

of ours. Perhaps it will be possible to make them seem a little more specific and concrete if we turn to some one of the arts to see how they are there exemplified and play their part in the total reaction. We can, at least, thus illustrate some of the principles to which we have called attention. For such an analysis we shall select the art which to-day by means of mechanical reproduction has come to assume such a large place in the life of the modern world, namely, music.

Were a questionnaire circulated to-day to ascertain which of the arts is most popular and most effective in exciting emotional responses, the decision would doubtless rest between literature, including the drama, and music. Emotionally these two are the most *powerful* of the arts, although we hasten to say that not all of the emotions excited by either are truly æsthetic. A novel or a drama may have melodramatic intensity, that is, be highly exciting, and yet be so crude and sensuous that it has little merit as a work of art. So also music, so called, as, for example, modern jazz is intensely stimulating but may possess only a modicum of those attributes which we have given as characteristic of the æsthetic reaction. Emotional potency is not to be confused with æsthetic value else were fear and anger the most beautiful things in the world.

Music is the least conceptual, the most formal of the arts, standing in this respect in sharp contrast to literature. The characters and actions of a novel or a drama are identical in kind with the characters and actions we know in our daily life. But in pure music such actions are not portrayed but only suggested by certain attributes that we shall note in our discussion. It is an interesting fact that emotionally, indefinite suggestion in the one art is not less potent than accurate representation and clear description in the other.

An analysis of the factors that constitute music will

help us to see wherein this æsthetic response is found, and to distinguish between what is primarily sensuous and what is intellectual. The component factors are four, namely, rhythm, melody, harmony and a particular tonal quality of various instruments and voices known as timbre.

Rhythm is of all these factors the easiest to apprehend and is the most direct in its influence over the emotional consciousness. Its importance in music is suggested by the fact that the character of the composition or parts of a composition is expressed in terms of the tempo or movement thereof. Thus we have such *"movements,"* note the term, as the Allegro, Adagio, Largo, Presto, Minuetto, and all the rest, where the emotional character of that part of the composition is determined by its tempo. In literature the emotional character of the work involved, whether comedy or tragedy, is determined by the scenes and situations pictured concretely by the words and ideas expressed. Concrete imagery here gives emotional character to the work in question. But in music, where the symbols have no conceptual content, emotional character is suggested, not pictured, by the rhythm or the tempo in which the composition is played. The remarkable psychological fact is that the tempo has much direct influence over the moods of man's mind.

How quickly, how surely the mind reacts to this sensuous factor! A few measures of a lively composition like "Dixie" and the whole organism from head to toe responds; a few measures of an Adagio or a Largo movement and both mind and body begin to take on the calmness that comes otherwise from the contemplation of the more serious aspects of life. Conditioning doubtless has something to do with the result, but the matter is more direct, more extended than simple association. There is an extended and a deep-rooted physical response so that the bodily organism keeps time in a very literal sense

with the rhythm of the music. This is what is meant by saying this response to rhythm is instinctive. Sound, more than sight, is the outstanding vehicle for emotional excitement. Thus there is an emotional potency in tones that far exceeds the movement of the conductor's baton.

No discussion of the rhythmic factors in music to-day can well avoid reference to that current popular form known as jazz. What are the musical factors emphasized in jazz that give it its particular character, and what is the psychological reaction that they produce? Jazz is produced not by any new element invented or discovered in recent years, but by a stress laid upon some of those named above. It is characterized, we may say, by an attempt to produce unusual, bizarre harmonic effects and by a pronounced syncopated rhythm, played in a fast exciting tempo. There is little melodic structure in modern jazz, that is, little balancing of phrase with phrase, of period with period, or the working out in an orderly, systematic, creative way the development of some theme or motif. Jazz is primarily rhythmic and harmonic in character, the harmonic factor seeking not so much pure consonance as unusual, often blatant combinations of tones, and impressive therefore, not for sensuous beauty so much as for their stridency and unusual sensuous effectiveness. Not richness of tonal effect is sought, but sensuous impressiveness; not sounds that express some idea or musical thought, but sounds all too frequently that defy the laws of harmony and of consonance. This in itself, however, is not enough to condemn it.

It does mean, at least, that the sensuous overshadows or supplants the intellectual, and that immediate impressiveness has been substituted for orderly and logical development of ideas which is the essence of the intellectual element in music as well as in every other art.

Jazz is artistically condemned, not because of the strength of these sensuous factors, but because of the absence of the intellectual. It is vapid, empty, meaningless, with all its *éclat* and effectiveness. It is not bad but poor art; it is impressive to the ear, but poverty stricken in musical thought. "Jazz," it has been said with some basis in fact, "is not an art but an industry."

The bizarre tonal effects of modern jazz we have said must be regarded as one of its characteristic attributes. What shall we say in regard to the psychological effects of this innovation? Certainly so far as it means novelty, new combinations of sounds, new possibilities in enlarging our appreciation of harmonic effects, praise not blame is due. Novelty is one of the virtues of thought, in art as in other fields of investigation and creation. Novelty is involved in apprehending new truth and without novelty there is no advance in any field. The nature of the novel effects, however, must temper our praise or blame. Not novelty alone, but new forms of beauty, or new measures of truth are the true criterion. Do these new combinations of tones, the clash of cymbals, the crash of sounds of various instruments, the disharmony so often introduced, the wailing of the saxophone, the whining of the stifled trombone or cornet, do these contribute something beautiful or significant, or are they effective only because of their unusualness and of their sensuous impressiveness? If Plato was right when he said that musical harmony of sound suggests and promotes harmony of soul, that is, self-restraint, order, law, self-control, there can be little question that these modern disharmonies suggest more of disorder than of order, more of abandon than of constraint, more even of license than of the beauty of the well-ordered, self-controlled life. How general this effect may be I cannot say, but I can witness to something of this disintegrating effect in my own case. In respect to this discordant blatancy, American jazz is

incomparably worse than music I have heard far up the Nile.

But it is time that we return from this detour to the main road we are following, that is to the subject of rhythm. For rhythm is, all things considered, the outstanding feature of modern jazz. Whether found in the heart of Africa, its natural habitat, or in our ballrooms, or whether it is imposed upon an audience as a substitute for music, this factor is the one indispensable attribute. There are two outstanding facts concerning the rhythmic element in this form of music, namely, syncopation and the fact that the tempo is almost invariably a fast, exciting one. By changing the position of the accent or beat in the measure attention is directed even more forcibly than usual to this factor, and it is made to stand out with unmistakable clearness by a stronger accent often secured by some instrument of percussion like a drum. Then the tempo as we have suggested is a fast, vigorous, exciting one so that the emotional reaction to all jazz is essentially the same. When used too exclusively, therefore, as is done, alas, too frequently these days, there is a deadly, monotonous emotional uniformity to it that is its greatest bane. It is as if all literature, all writing attempted to be humorous. Some humor is humorous, but too much not only ceases to be so, but becomes a weariness to the soul. Thus there is point in saying that the worst thing about jazz is that there is too much of it. If man cannot live on bread alone, he ought not to be expected to develop his musical selfhood on such a thin, though highly spiced diet as jazz used exclusively.

Whether jazz will develop into a genuine form of art and thus produce a real æsthetic effect is a question often raised these days. It is an innovation, a new development, a new form it is said, and new art can only develop from such conditions. Its newness and its novelty, however, are not enough. New pests, new diseases, new vices, new

anything demand no less. This much, I believe, can be said with complete assurance: if a new, a really artistic form of music is to develop from modern jazz, the intellectual factor which is now so sadly lacking must be reintroduced and given a prominence it does not now possess. Call the rhythmic and the harmonic factors the sensuous, and the melodic or thematic the intellectual, then it is safe to say that to become a true and significant form of art this latter must assume a more important place than it does in the jazz of to-day. Let the rhythmic and the harmonic factors remain pronounced if you wish, but utilize them not for their own sake but in giving expression to real musical thought, and the hope may be jusified. Ideas can be expressed in strong colors as well as in subdued ones, though greater skill is needed to utilize them in so doing. There is always danger that the idea will be sacrificed for the sensuous effect, as we see so often in modern painting. The intensity of the sensuous factor is in itself no criticism. The absence of the intellectual, or even the subordination of this to the sensuous appeal most emphatically is, and it is one that must be corrected before jazz can develop into a significant movement in the constructive history of music.

It may be helpful to point out briefly some of the various uses that rhythm subserves in music of different kinds. For after all an appeal to examples from music is here a better argument than conclusions drawn from psychological principles. Without insisting at all upon the limits of the classes specified, we may say that there is music in which the rhythmic factor is the one that attracts and holds the attention. Such is jazz as we have seen, and such compositions as jigs, that favorite song of the South, "Dixie," and others that shade off into the melodic type. The other elements are not wanting but the factor that stands out is the rhythmic, not the melodic or the harmonic one. Then there is the class of popular music,

ballads, folk songs and the like that are recognized and loved for their melodic characters. Here the rhythmic factor is present to accentuate the mood but the leading factor is distinctly the melody. All music must be rhythmic to be music. It is a question, however, which factor or factors assume the leading rôle.

As a transition between these two classes reference might be made to college songs, and patriotic ones, that still have a pronounced rhythm, but where this rhythm has some psychological justification. Since college loyalty and patriotism still have in them something of the martial or fighting element it is æsthetically fitting that songs of this type should excite an emotional reaction of this spirited character. So, also, in marches, dances, waltzes, the rhythmic factor must needs be pronounced. Rhythm therefore finds in such composition a justification for standing out unmistakably. And yet in the best compositions of this class there are also a beauty of melody and a richness of harmony that shares the attention of the intelligent listener so that it is at times difficult to say whether the melody exists more for the rhythm, or the rhythm to accentuate the melody.

Then finally in music of the highest type, in "classical music," so called, the rhythmic factor though present and always important, has become subordinate and even subservient to the melodic and the harmonic factors. In listening to one of Beethoven's sonatas, for example, it is not the rhythm or the tempo that monopolizes attention, but with this as a background it is the structural and harmonic factors that catch and hold the mind. The rhythm gives the appropriate mood or emotional background against which the melody and the harmonic changes play. And so it is in all good music whether in the simpler song forms of our best ballads or in the most complex forms of thematic music. Responsiveness to rhythm is probably instinctive, and hence natural, easy,

and requires but a minimum of conscious effort, or control. Responsiveness to structural factors, on the other hand, presupposes training, education, and the perception of relationships that are as abstract as those in other fields to which intelligence addresses itself.

The real structural, and the principal thought factor in music is melody, using the term to include both the simpler, unitary song form, and thematic music as well. Melody in its more common popular form may be defined as a succession of musical tones in rhythmic patterns expressing a complete musical thought. In the song form the structure is simple, phrase being balanced against phrase, and "period" with "period." All of this, however, has to do with the architecture of this art while our chief interest lies in the psychological effects produced by such a melodic form.

Fundamental for such an understanding is the principle of cadence, the return of the melodic form to the keynote of the scale in which the music is written, or, the principle being the same, to one of the more important notes in the scale such as the "fifth" or "third." It is this return or "falling" as the term implies, to the keynote which gives a sense of finality or completeness to the period or composition and marks one of the most striking psychological effects produced. The principle is fundamental, therefore, for the understanding of all musical structure and for the mental reaction to the architecture of musical form. Puffer in her *Psychology of Beauty,* I believe, quotes Gurney as saying that the infinite longing that some music excites is in fact but the longing for the keynote of the scale in which the composition is written. And so indeed it may well be so far as physiological stimulus is concerned.

Another problem that may be raised in this connection relates to the value that various compositions possess. Will an analysis such as we are making throw any light

on this obscurity? What is it that gives to certain compositions musical immortality, and condemns others to a deserved oblivion? For the sake of simplicity we shall confine ourselves to the earliest form of musical composition, the song form. Why is it, then, that ballads vary thus in popularity and in real musical worth? Consider two of the same general character having the same structural factors, and yet one rising to the heights of sublimity and immortality, while the other sinks into inglorious oblivion, unhonored and unsung. Is it the words or the music that has given to our old folk songs their unfading appeal. Their simplicity of structure helps us to understand their wide appeal, but wherein lies their beauty, be it only of simple form?

To understand this we must look to the diatonic scale, I believe, and its place in the mind of everyone who sings or hears these compositions. While every note in the scale is related to the keynote by a definite mathematical relationship there are some tones that have a favored place, such as the third and fifth for example. When a melody makes a larger use of these fundamental intervals the melody is easily learned, it sings itself as it were. Where the intervals are more unusual, including accidentals, there is not only the shock of surprise of originality but the expected order is not followed. Then, too, not every phrase ends with a full cadence, and so does not have the finality that such phrases and periods possess. Our ballads and folk songs thus have a structure that everyone feels though they may be unable to state in technical terms wherein it consists. Appreciation here as elsewhere is something far different from clear apprehension. It is an affective reaction, that may have in it but little of analysis or intellectual apprehension.

But musical art is not willing to confine itself to this simple song form. There are more complex forms to be created that make a greater demand upon the under-

standing. This is thematic music as exemplified in the sonata and the symphony. Without entering into a detailed discussion, a subject too extended for our present purpose, we only pause to suggest that here some simple phrase or theme or motif is expressed, and its rhythmic, its melodic, its harmonic possibilities developed with an intricacy that is baffling to the understanding of many, but to those who can follow it through, it stands as the finest, the highest, the most inspiring form of the musical art. Such appreciation is not simple and instinctive as in the response to music that is emphatically rhythmic but demands some education in listening, some experience in recognizing the theme under its various disguises.

Harmony, the third factor in modern music, means the simultaneous presentation of different tones of the scale so that the resulting sound effect is modified, enriched, given more sensuous character and beauty than any single tone would possess. Nor is it any disparagement of the value of this element to say that essentially it is a way of increasing the sensuous factor in music. In this respect it is like color in painting. The thought content, the emotional appeal of any picture can be given in black and white. Color thus is not essential for these two functions and yet when well used accentuates them, giving a greater effectiveness by addition of a new factor, a new element of beauty. And so it is with harmony in music.

The development of harmony is the contribution of modern times to the musical art, and it is a major one as well as the latest. So much has it added to music that simple melody has become the exception not the rule. Even in solo work, whether of the voice or of some instrument, an accompaniment, which is essentially a harmonization of the melody, is almost invariably present. Orchestration it is obvious is but a modification of this factor, in which not only different tones are utilized, but

the timber or tone quality of various instruments is further employed to enrich the successive sounds.

Such are the elements, the factors at the service of the musician, as he proceeds to build up this temple of sound which is a musical composition. Rhythm, that has in its tempo direct emotional effectiveness, melody for giving unitary form and order to the long succession of musical sounds, and harmony whereby the musician gives to each succeeding tone a rich sensuous beauty that makes them at the same time ends in themselves and more effective structural factors to embody the comprehensive thought of the composition. That there is not here some means for expressing ordinary conceptual thought is true, but such is not demanded in this form of art. It is true that words and music are often combined and the composition thus assumes that conceptual specificity that assists many in their appreciation. But such is not essential as our great body of instrumental music abundantly proves.

There remains to be noted what is after all the supreme test of the musician's skill and even genius. Rhythm, melody and harmony are inherent in symbolic form in the score the composer has written. These as thus expressed are the same for all. But to produce their maximum emotional response these symbols must be played with "expression." This has to do with variations in tempo, for no composition of real artistic worth should be played with metronomic uniformity; with variations in *force,* from *pianissimo* to *forte;* with the manner in which separate notes are played, *staccato* and *legato,* and with *phrasing,* bringing out the architecture of the composition, as it were. So simple are these in form that they may be produced by mechanical means, so powerful in their psychological effect that they serve as the finest criterion of the musician's skill. These constitute his interpretation of the composition.

The primary reason for the emotional potency of these

factors of expression must be looked for not in the modification of the stimulus of sound alone, but in the experience of the subject. The fact is that these elements of expression in music are the natural method under which emotional excitement appears in the vocal communication of one individual with another. Exciting emotions as we have shown produce an increased tempo in the whole bodily organism and this manifests itself in speech as well as in heartbeat and breathing. Forcefulness no less is a natural expression of such an emotional reaction. These attributes are conditioned to the emotions therefore throughout life and serve as a stimulus to such excitement when apprehended under any form of auditory stimulus.

Such are the factors that the musician utilizes in the creation of his compositions. Used aright they are capable of producing one of the most powerful, appealing and entrancing forms of beauty known to man. Used in other proportions and with the vital spark of genius wanting there results a humdrum form of music, without artistic appeal, music, in fact, that is little better as an emotional excitant than some form of physical stimulant.

Regarding music as typical of all art we thus see what the essential factors of beauty really are. Every art, every beautiful object, in fact, must have emotional appeal and this is derived from sensuous factors and from what we have called its intellectual content. The emotional appeal of literature is found in the actions and thoughts of the characters involved, and in the beauty of some significant thought well expressed. Large demands are here made upon the imagination and upon clear-cut conceptual ideas. In instrumental music the emotional response is secured not by definite pictures accurately portrayed, but rather by suggesting in certain tone qualities the physiological reactions that accompany these various emotional activities. In the former case the imagination is controlled by the word

picture the author has created; in the latter the reaction is only suggested, but that it is present no one who has listened to Damrosch's interpretation of the compositions he plays can doubt. Of the potency of these sensuous factors there can be no question. The problem of their artistic use is not to rely upon them exclusively, but so to utilize them that they accentuate and emphasize the intellectual factor that also is an integral part of every enduring work of art.

In this connection, it is pertinent to recall that almost the only effective criterion we possess for the real value of a work of art is this capacity for repeated enjoyment. The years only can tell whether this composition, this picture, is immortal. This attribute the masterpieces of every art possess. Moreover they possess it not by virtue of the fact of their primitive melodramatic emotional appeal, not by their sensuous impressiveness, but by virtue of the fact that they deal with themes that are intellectually significant, that they open up vistas for thought that are at the same time intellectually interesting and emotionally significant. Furthermore, music as a form of art has to the highest degree the attribute of sensuous impressiveness and beauty. Not only should it be remembered that this sensuous factor is the beginning and the condition of the intellectual component, but that it has also a character and affectiveness in its own right. A periodic musical tone, the basic element of musical expression, is pleasing in itself just as the odor of a rose or the taste of sugar is pleasing. With all the variety and novelty that come from the timber of various instruments, with the number of tones that the ear is capable of recognizing, and with the further enrichment of their sensuous qualities through harmony, it is doubtful whether there is any art that has a medium of such latent possibility in this direction as has music.

One further source of æsthetic enjoyment we have

to note. Skill in the use of the medium of an art, or technique, is a part of every art, and its absence or presence detracts or adds to the mental reaction of the beholder. Such a problem is this mastery of the medium of expression that it is safe to say that it has never been completely attained in any art. A perfect mastery of the violin, or perfect control of the voice, or of color, or of the use of language is a limit that may be approached, but never completely attained. Perhaps we value it so highly, because it is so difficult to attain. Now skill, we say, in expression in the use of the chosen medium for art is a true and a significant part of art. Expert use of color, or form, or language, or chisel, or brush, or pen, pleases the beholder because it is expert. The bungling artisan or artist so disgusts us that we refuse to admire or to appreciate his work until it is more adequately expressed. We would consign him to the minor league for further development before he appears in the company of true artists. The technical mastery of the medium, the attainment of a reasonable amount of skill, is a prerequisite for all art creation.

But to ignore the content, in favor of technique, is to be false to a fundamental psychological law, for ideas, too, have affective value as well as objective forms. A pig wallowing in the mud, however lifelike the pig, and however realistic the mud, does not stimulate the mind in its higher reaches of thought as do the masterpieces of the painter. To ignore this truth and to urge "art for art's sake" is not so much a justification for the value of the technical side of art, as it is a confession of the absence of true artistic genius. When Caravaggio began to paint such realistic pictures as the *Card Players,* the decline of art had come. But ideas, even profound ones, do not make art; the art must be expressed, given perceptual form, and skill in doing this is also gratifying, and has true affective worth. So long as efficiency is a

virtue, so long as there are better and finer ways of doing things, so long as objects have symbolic worth, so long as ideas are dependent upon, and are stimulated by objective forms, so long will the technical aspect of every art have affective significance, that is, a true artistic worth. What is most needed for a better, fuller, more adequate conception of the psychological character of art and of beauty is not so much additional stress given to any one of these feelings as it is to show more clearly how each plays an essential part in the total reaction to such forms of beauty.

There is another variety of beauty sufficiently diverse from works of art to suggest some new phases of the æsthetic experience. Nature, as well as art, has its æsthetic appeal, and may be even regarded as having the final word in some aspects of beauty. So many are the objects in nature that may be properly regarded as beautiful, so diverse are they, that it may at first seem confusing to look for any common principles. Such diversity, however, is wholesome as it will insure a comprehensive consideration if it does not result in some one definite formula. Thus there is the beauty of the morning that Corot so loved, the beauty of midday and of evening, the beauty of moonlight, of mist and fog that Whistler painted, the overpowering majesty of the sea, sometimes tumultuous, forbidding, threatening, sometimes slumbering and only the deep slow breathing of the tides suggestive of life; there are the towering mountain peaks, or the more graceful countryside such as Claude and Constable saw and loved, and forms of flower and ferns and trees, the rugged oak or the graceful elm, the sinister form of tiger threading the jungle with a grace and ease born of great strength well controlled, the birds of the air, the fish of the sea, all are to the discerning eye forms of beauty manifold and yet most positively real.

That the ancient world did not get as full a measure

of meaning, as rich a portion of enjoyment from nature as does the modern world seems from the facts at our command to be a safe, as well as a significant statement to make. Hannibal regarding the Alps only as an annoyance, an obstacle to his designs, is the classic example of this æsthetic obtuseness. The æsthetic response, like all mental reactions, is a dual affair, object and subject are both involved, stimulus and response, fact and its interpretation, truth and its felt significance. That minds not prepared, not rich in associations, not broadened by insight, not trained to look for and to appreciate the more subtle aspects of the objective world, pass by unnoticed the riches of the world around them is an elemental truth and holds true in the intellectual realm as well as in the æsthetic.

Nature in some of her moods and in some of her aspects is a tremendous stimulus but this by no means raises her above the mental law we are discussing. Even such forms as are here found must be enriched by thought to be significant and therefore beautiful. The mountains must be as Olympus to the Greeks, or suggestive of elemental forces, or of the handiwork of God, or reaching above the turmoil of earth to the peace and purity of heaven to attain their highest æsthetic significance. The stars may be regarded as whirling worlds in abysmal space, or as the "forget-me-nots of the angels" and still minister to a true æsthetic response. But all of these factors are not enough unless they be translated into the language of the emotions. Intellectual facts as such are science not art, but truth thus transmuted is productive of the purest and the richest emotional response. Thus the restless sea reflects the heart of man, its raging (the very term is human) power unconfined, its placid bosom the peace of slumber, its broad expanse the mystery of the great beyond. Take away all such ideas and reduce nature down to the bare sensuous reality and it will be

regarded with no more wonder, no more interest, no more emotional response than we see manifested in the lower animals.

If, therefore, thought without objective reference is æsthetically barren and impotent, forms that do not exemplify ideas, principles, truth that is more comprehensive than simple fact, are likewise æsthetically barren and inert. If, as we have said, the æsthetic response is intellectual, contemplative, it must find in the objects that awaken it something to contemplate, something for the intellect to exercise itself upon. Likewise the mind that reacts must be interested in this particular type of response, or the cares of this world and the deceitfulness of riches will prevent any fruit of this rarest quality.

> Flower of the crannied wall
> I pluck you out of the crannies
> I hold you here, root and all, in my hand
> Little flower—but if I could understand
> What you are, root and all, and all in all
> I should know what God and Man is.

Thus do the poet, the artist, the sculptor, find in forms that to others are simple forms and nothing more, meaning, truth, significance that is as deep as reality, and indeed of its very essence and the emotional response has in it something of the same character. Skill in expression, masterful technique there can be in trivial affairs as well as in matters of more moment, and skillful work is admirable wherever found. But the sublime in art is attained only when the theme is worthy of the most perfect expression and when the expression does justice to the theme. The Golden Age in painting, it is well to recall, was characterized by dignity, repose, by a choice of themes that were intellectually significant. Maturity, not youthful beauty in forms and faces, was chosen as the vehicle for expression of the ideas to be portrayed. Art was then serious in purpose and in form.

Art for Truth's sake was the accepted principle. Decadent periods in painting and in literature are due to a poverty of ideas, not to loss of technique in creating masterpieces of sensuous attributes.

But it is time that we pass on to a consideration of the functional value of the experiences we have sketched, to see whether the æsthetic emotion runs true to the form and function of the affective consciousness. The emotions we have shown are dynamically impellent, pragmatically useful: how can we class with them the æsthetic reaction which we have said is calm, not dynamic, contemplative, not exciting, introvertive, not extrovertive? The appreciation of beauty, properly enough, is usually regarded as a fitting recreation or employment of leisure time, to be exercised when the practical demands of life have ceased to bear down so heavily. Sociologically and psychologically it seems to be of a different order from the typical form of the emotions. The contrast is indeed a striking one when we consider the intimate and palpable relation that these latter emotions bear to some crisis in the life of the individual or to some immediate, practical need, and the æsthetic emotions with their quieting, impersonal, if not altogether non-economic character. This contrast we wish neither to deny nor to minimize. It is a real distinction that has existed from the prehistoric times when the caveman saw and recorded the shapes of his fellow denizens of the wild, to the highest creations of our more sophisticated times. It is quite as difficult to see any practical value in these drawings as it is in the caricatures of Da Vinci. And yet the impulse to observe and to express, and even to create what was only remotely, if at all, of practical value, was there and has remained one of the most significant aspects of human endeavor. But to recognize the characteristic differences between this and other forms of the affective consciousness is not to deny it an equally important place in the

higher mental life of man. Until man can in some way transcend the immediate needs of his body, he has hardly become human at all.

If we are to find the value of the æsthetic consciousness, it seems wise to look for it in connection with those attributes that are characteristic, and not to be obsessed with the idea that its value like that of the other emotions lies in the pragmatic or economic sphere. The contrast here is so striking and so fundamental that such an attempt seems not only futile, but positively misleading. While art and beauty in its various forms are found in the actual world of human experience, and therefore have manifold relations to everyday life, it does not follow by any means that their real significance is to be found in the realm of man's practical, economic needs.

Neither is it most helpful in finding the solution we seek to look backward to the more primitive expression of the motive in the lives of men. The true significance of the automobile, or the telephone, or wireless, is best seen, not by looking back to the first faltering success, but by considering them in their perfected forms. Invention both in nature's sphere and in the human is necessary and it is a great day when something capable of developing is devised. But why, when we have the *Leviathan,* turn back to Fulton to understand the possibilities of steam propulsion? The economic and social significance of the automobile can only be adequately apprehended when it has risen to its perfected form and to general use. Without denying or even discounting the practical significance of beauty, therefore, let us follow the lead of the remarks above and see if by so doing we do not find sufficient warrant for regarding the æsthetic consciousness in its own way and in its proper sphere one of the truly significant forms of human consciousness.

The æsthetic experience is initiated, as the stimulus-response theory holds, by some objective sensuous form.

But in all the higher mental processes, the pathway from stimulus to response is a long and an intricate one, and it is quite possible that the modifications along the way play fully as important a part as does the original stimulus itself. Since the cerebrum is to be regarded as in some functional way a storehouse of experiences that are available to enrich and intensify, to supplement, or to interpret any given sensuous stimulus, the whole reaction can scarcely be determined by a consideration of the stimulus alone.

The intellectual character of æsthetic demands is further emphasized, if we turn to the list of attributes usually regarded as the æsthetic virtues, unity, harmony, symmetry, balance, congruity, originality and the like. While they all must appear in the sensuous form of the work of art, and thus must be apprehended through the senses, their appreciation and their evaluation are matters of a more central, more intellectual apprehension. Take, for example, that greatest æsthetic virtue of them all, unity, and it is a question not easily answered whether it is more an æsthetic demand primarily or a purely logical one. Certain it is that it is at every point an ever-guiding principle of the higher intellectual life. To unify experience by finding common laws, common principles, is a basic purpose both for science and for philosophy. The countless worlds around us must be regarded as a uni-verse; the laws of physics and of chemistry and of life in the midst of a baffling multiplicity are held to be uni-form. Both philosophy and theology as they become reflective become mono-theistic. Uniformity in nature is the basic postulate of all scientific investigation and experimentation. The demands of the practical life and of the theoretical as well find satisfaction in nothing less than an underlying unity. Little wonder is it, therefore, that the same idea, the same ideal should take its place as an indispensable attribute of beauty. Thus do we but

give dignity and honor to an attribute that is indispensable in the world of thought. The problem is not so much to see the logical relation involved as it is to understand psychologically how the affective consciousness with so sure a hand should have given its approval to what is most fundamental in the intellectual life. There are those to-day who, like Thomson in his *System of Animate Nature,* are disposed to find the solution of this problem and of others, by frankly admitting that Beauty is not merely a subjective ideal of man, but an underlying objective principle. For our purposes we are content to rest with the assertion of a vital, causal relation between the intellectual and the æsthetic reactions.

As we have already stated, the affective consciousness for some reason extends from the most primitive forms of sensory response, as pain and pleasure, to the highest forms of intellectual activity to which man has yet attained. And in different circumstances, and in different ways, there is little question that the function of such consciousness remains the same, namely, so to give worth or value to certain forms of experience that they have a preferential value, a stronger impulse to expression and to realization in the objective world. The emotions are impellent, dynamic, because they are the types of reaction suited to the occasion that calls them forth. The æsthetic situation is aroused by conditions far removed from these, and so fails to duplicate the emotions in certain respects. But that this form of emotion is adapted also to the needs of the mind we shall now attempt to prove.

There is, we are quite ready to admit, in the second characteristic of the æsthetic emotion named above an apparent contradiction to the usual order of the emotional reactions. Calmness and contemplation are just the qualities that the "emotions" do not usually exemplify. But this contrast is accentuated because we are inclined

to think of fear and anger, of jealousy, and the like as the type for such forms of mental reaction. This is just where the synoptic, the comprehensive view of the affective life serves to correct this false perspective. If we regard the affective consciousness as an integral part of all mental activity, and can find the function of this component, there will be less tendency to regard some one manifestation as the form to which all others should conform. The æsthetic consciousness is far removed from the turbulence and stress of fear and anger, but it is connected with a form of reaction and of adjustment that arises from other conditions than those in the latter cases. What such an objection overlooks is the fact that thought, reflection, imagination is as much a means of adjustment as is concealment, or fighting or escape. Though the process is indirect, preliminary to action, analytic, abstract, it is none the less effective and important. It is by this means that inventions are made, discoveries are promoted, that new and better modes and methods of living are effected. Here is, in fact, the very workshop in which human progress is conceived and means provided for its attainment.

The other descriptive term used, namely, "contemplative," is one more directly suggestive of the inner character of the æsthetic reaction. When observing a work of art or any beautiful object æsthetically, the end is not information or understanding but *appreciation*. This, however, implies more than open eyes or ears. The full content and significance of any object of beauty is only suggested not explicitly stated in its objective form. Æsthetic appreciation, therefore, implies a definite reaction in the observer. Besides the formal sensuous attributes relating to the medium of expression for their own sake, there is the thought content with subtle, often profound relationships to life to be apprehended and their significance appreciated. The mind is receptive, it

is true, but æsthetic reception at the same time implies interpretation and understanding realized under the form of imagination. Only as some such reaction is excited does the affective component arise to vivify and give worth to the presentation.

Between art appreciation and art creation there are profound psychological differences. In creating a work of art the mind is launching itself upon an act of real creation where no trails are found, no foot has trod. Such ability is rare, as rare as genius, as precious as art itself. Where one can thus create, ten thousand can follow and appreciate. It is one thing to see and appreciate a truth once expressed—although no mean or inconsiderable mental activity is even here involved—but to discover and give adequate expression to some new artistic truth, to create some significant form of beauty, that is a glory reserved for genius and for God.

But the impulse to action, the drive toward objectivity, the essence of the affective consciousness as you have contended, where does this appear, you may ask, in these experiences with beautiful objects. The impulsion of the emotions proper, it may be admitted, is obvious, but where is it in looking at the Sistine Madonna or reading a novel or even in listening to the most impressive tragedy? We are ready now to meet the inquiry and to affirm that the impulse is present when the idea has been elaborated and perfected and the sense of worth and value have been so attained. Not only so, but we would contend that it is not less potent and unmistakable than in anger or fear of curiosity or jealousy, or in the case of pain and pleasure. When Michelangelo had once conceived the pictures for the ceiling of the chapel that he has made famous above all others, the impulse to expression burned in his soul almost as a fury. Up to the very limits of a strong man he labored, so that when it was completed, he felt that his health was broken.

In Raphael, the impulse to expression burned less intensely, it may be, and yet so strongly that the world is amazed by the amount of work he accomplished in the too few years of his life. And is not the world burdened with an output of poetry, books, pictures, musical compositions, to say nothing of social reforms, panaceas for physical and social ills, cults, religious denominations, that, having been conceived, accepted and *felt* as good, are forthwith to be incorporated and to take their place in the realm of the actual workaday world of human affairs. After full credit is given for fame or recognition, there is still left over something real, if intangible, potent though subjective, that we may call the desire or impulse for self-expression. That so many of these creations are mediocre or worthless may proclaim the character of the minds where they originated, but it takes away nothing from this impulse to expression. So was the theory of Marx studied by Lenin, accepted as true, felt as a good, and the impulse to realize it in the concrete was born, burned almost with fanatic zeal, discounted other values of life and so took its place as a great social experiment. But without this fervor of feeling, without the belief in, and certainty of its inherent value, I doubt whether either selfish lust for power or class feeling would have sufficed for its propagation.

Who, for example, who thinks broadly and profoundly would discount deliberation, contemplation, reflection and creative imagination in favor of reflex action or even of the principle of conditioning, as a method of meeting the more urgent social and economic problems that face mankind to-day? But to be effective, to be made objective realities, to take their place in the stream of efficient causes, these ideas, too, need the urge, the worth, the drive that comes from the affective consciousness.

This calmness, the absence of intense bodily reaction,

it should be noted is the very condition for the most effective thought but it is in fact the calm before the storm. Action there will be, dynamic impulse in the proper season and direction, but the calmness of æsthetic appreciation is the calmness of thought, of fuller appreciation, of fuller realization of the significance of the form in question. Such activity is inherently introvertive and does not require the intense bodily reaction so obvious and characteristic of the emotions as generally regarded.

When we speak of an impulse to expression we must needs realize, also, that expression may take divers forms and the impulse is not always identical in its call to bodily action. The child dancing exultingly in its joy is not with all its bodily action so accurate or so significant an example of expression as a Greek stela, or as *In Memoriam,* or even the Revolution in Russia. The drive that comes from the pure æsthetic reaction is derived from the felt value, the perfection that is conceived to inhere in the object or the idea presented by the artist in concrete sensuous form. To regard an object as beautiful is to say that it exemplifies not only the mere obvious sensuous attributes that give more or less a sense of pleasantness, but it is to find there also an intellectual content that is suggestive and satisfying to a mind that finds books in running brooks, sermons in stones and good in every thing. Thus a new scale of values is added to experience, new ideals of perfection are established, new goals are set, new conceptions of unity, order and harmony are formulated, and thus are man's eyes and his purposes enlightened and fixed upon standards of beauty that at the same time satisfy his intellect and delight his heart.

If thought, therefore, plays any part in life, if progress or future adjustment is in any way dependent upon relationships intellectually apprehended, if truth is practically valuable to any appreciable degree, then ideas and

conceptions that are thus authenticated need this propulsion of feeling, this drive toward objectivity, to secure their realization in the objective world. Thought, even in its most abstract form needs the dynamic of the affective consciousness as truly as do those simpler activities apprehended through sensation and perception. To find beauty in an object as in an idea is to affirm its right to exist, its right even to supplant other objects and ideas that fail to exemplify this attribute to an equal degree. Thus beauty is a feeling of value, of worth, partly sensuous, partly intellectual, that comes from the affective consciousness, and plays its part in life no less significantly, no less truly than do sensuous pain and pleasure.

Take away from the world to-day all the ideas and ideals that art has contributed, the conceptions of unity, order, and harmony and a sense of their value, the enlarged and enriched conception of human nature and its possibilities that writers and painters of all ages have crystallized in their art, the love of nature, the appreciation for the lyrical factors in life, the appreciation even for abstract truth made concrete in art, take away, in a word, man's appreciation of the beautiful in its various forms and leave him with his practical economic interests alone intact, and it were a sordid, sorry, uninteresting, uninspiring world indeed. And if what we have said be true, the drive, the longing, the zeal for progress and for truth would be no more.

REFERENCES

Moore. *Pain and Pleasure.*
Langfeld. *The Aesthetic Attitude.*
Puffer. *The Psychology of Beauty.*
Edman. *Human Traits,* Chapter XIII.
Langfeld. *The Rôle of Feeling and Emotion in Aesthetics.*
Feeling and Emotion, The Wittenberg Symposium, pp. 346ff.
Britan. *The Philosophy of Music,* Part III.
Marshall. *Aesthetic Principles.*

PROBLEMS FOR FURTHER STUDY

1. In what respects is a consideration of the objective or sensuous attributes of a work of art apt to fail in providing an adequate theory of the æsthetic emotions?
2. In what respects is a purely emotionalistic explanation incomplete?
3. Does the stimulus-response theory give adequate place for the thought factor in art?
4. Enumerate the various sensuous factors that are present and important in music, painting, sculpture, architecture and literature.
5. Compare the several arts as to the relative importance of the thought factor present in each.
6. List the various arts in terms of their emotional potency comparing results obtained from various members of the class.
7. Where is the psychological basis for the source of value that attaches to the æsthetic emotion? Can the principle of conditioning explain it?
8. How upon the basis of utility would you justify the dynamic character of the various emotions and the contemplative character of the æsthetic reaction?

CHAPTER XIV

THE RELIGIOUS EMOTION

THERE remains one other type of emotion to be considered, the religious emotion, a type distinctive enough to merit separate treatment, important enough to justify its place in any discussion of the emotional consciousness of man. That the affective consciousness appears in various forms, a constant accompaniment of the diverse types of cognitive activity, we have shown to be true. From pain and pleasure, the affective component of simple sensation, up through the various emotions to the æsthetic reaction we have followed it in outline. Pain, pleasure and displeasure are the simple affective tone of any sensory stimulation and require no interpretation or meaning. Pain is its own interpreter, and as simple sensory fact has all the meaning required to serve its function as a means of inhibiting the stimulus producing it. In the various emotions, there is still the direct, urgent impulsion, although doubtless at times there is some consciousness of meaning included. Fear is more than a blind impulse to run or to conceal one's self; it is a fear of injury or of some object sometimes but vaguely, sometimes quite clearly understood. The imagination, we have shown, is not so much the cause as it is the means of emotional stimulation. It is the means by which we pass from direct sensory stimulation of the emotions to stimulation through the use of ideas or representative factors. By this means the sphere of possible experience both for weal and woe is tremendously enlarged. And finally, we have found in the æsthetic consciousness, without how-

ever transcending dependence upon the sensory form, the introduction of vital intellectual facts and principles as proper stimuli for emotional reaction. The source of the religious emotion must lie somewhere between these two extremes. But the religious emotion is not a mere composite of sensuous and æsthetic factors; it, too, has its own distinctive attributes which are not included in any of the forms discussed above.

In our discussion, it may be well to consider the religious emotion from the point of view of the stimuli by means of which it is excited. From this standpoint, there is one fact that stands out as final in the matter. *The supreme object of the religious consciousness, and of the enlightened religious emotions, does not appear in any sensuous, objective form to the perceptual faculties of man.* God, however real he may be, though nearer than hands and feet, is not and never has been a perceptual fact. His form is not seen, his voice is not heard by the physical senses of the bodily organism. Here, then, we are face to face with a fact that cannot be evaded nor denied. It must therefore be reckoned with, and any theory of the religious emotion must be reconciled with its logical consequences. If any genuine emotional experience is dependent upon some direct physical stimulus arising from some objective reality, then Hume's nihilistic conclusion concerning the idea of God would hold also concerning the emotional experience. And even if it be true as all psychologists to-day assume, that the primary stimulus for an emotional reaction is some objective reality sensuously apprehended, then the religious emotion must be regarded as a secondary product at least once removed from the object that it typifies. Much, therefore, depends upon the validity and the significance of this assumption.

Is it true, then, we must ask, that an emotion that does not originate directly in some perceptual object is

ipso facto proven illusory and logically meaningless because contentless? The assumption that this is true, it is evident, rests upon a gross materialistic theory of emotional stimulation, but that by no means invalidates it until this philosophy is cogently and finally refuted. If nothing but a physical stimulus, and that taken literally and purely physiologically, can awaken a true or a significant emotion, then we must admit that no such stimulus for the idea of God can be found, and here the matter ends. But such a point of view ignores all representative and all ideal factors as emotional stimuli, and this may be an oversight as potent in the production of error as being a little too credulous about matters not fully understood. In such a case the best evidence is a direct appeal to fact.

Concerning the emotional potency of the perceptual world, all are agreed, and furthermore, for all who accept the fact of mental evolution this form of stimulation must be regarded as the elemental, basic one. But this conclusion while it is fraught with important consequences by no means implies that such stimuli alone are effective or representative of reality. To imply as much is to fall a victim to a fallacy that is all too common these days, namely, the tendency to assume that what is primitive, elemental, earliest in its manifestation, is more significant, more real, than the later more refined expressions of abstract developed thought. Emotional experiences are by no means confined to sensuous or perceptual reactions, but are an accompaniment, or better, an integral part of every form of mental reaction. Concepts, ideas, propositions, mental situations, as has been shown in the chapters above, have also an emotional content just as truly, and no less significantly than do the objects of our perceptual world.

Thus, while we are ready to admit that perceptual experiences, since they are primary and logically antedate

representative activities, are basic, we must refuse to concede that it follows in any way that they are the only significant form of apprehending reality or of giving rise to emotional experiences that are vitally significant. This fact, therefore, while it by no means negates the religious experience or detracts from its significance, even in its purest, most abstract or spiritual form, does help us to understand the tendency of men everywhere to give bodily form to their idea of Deity and to worship Him under some form of nature. It throws light also upon the function and value of ritual and of relics of the saints, so potent emotionally with the naïve and unsophisticated mind. All that this proves is that the power to conceive of God as an incorporeal reality and to be affected by such a conception is a function of the higher mental processes and until such a fund of abstract ideas is at hand, this mode of apprehending deity is necessarily wanting. The psychological reason for idolatry, that is, for conceiving God as in the form of some material object, natural or manufactured, is that by so doing, the Godhead becomes more easily apprehended, more definite and concrete, and in this sense more real.

The æsthetic appreciation of any significant work of art will serve to call attention to some important attributes of the religious emotion. By way of contrast, it may be noted that the æsthetic experience arises through sensory or perceptual activity. A work of art or an object of natural beauty is always a concrete, specific, objective sensuous form and this, as we have just observed, God is not. Not that the beauty is wholly sensuous, but the idea, the conception that we find so stimulating emotionally does find its expression in this sensuous medium of the art in question. For some, these sensuous attributes seem so important that they are said to comprehend all that the artist strives for. The phrase, "Art for art's sake," was formulated to express just this point

of view. But this point of view however important is inadequate and incomplete both from the standpoint of æsthetic theory and psychologically. Idea as well as form must be given its place before we can find or justify the evaluation put upon our masterpieces of art. But the supreme object of the religious emotion does not appear under perceptual form. Consequently the religious emotion is one of the most forceful, most eloquent illustrations of the emotional potency of ideas and of the power of the imagination to excite the mind to an emotional response. What is the significance of this fact for the religious experience? Does it gain or lose thereby?

There is a distinct gain in emotional potentiality in the fact that the religious emotion has as its object the supreme object of abstract philosophical thought. God as conceived by man, whether in his primitive stage of development, or in his most advanced, most logical attainments of theological speculation, is an object fraught with the deepest import for his temporal and eternal welfare. Man's destiny is inseparable from the concept of God. Such is the assumption of all religions and the emotional import of such an idea is strictly commensurate with its intellectual. In primitive life this emotional potency rests in the fact that the gods were regarded as holding in their hands the outcome of every act having to do with human welfare. Upon the good will of the gods depended the success of every warlike expedition, of the hunt, of food supply. Birth as well as death was under their control and diseases real and assumed as in witchcraft were sent at their behest. In our most developed thought God is regarded and often defined as the controller of human destiny by guaranteeing the supremacy of man's ideals. Thus at both extremes God was conceived as having a vital part to play in the existence and well-being of man.

On the other hand, the emotional development both

of the individual and of the race has been through interaction with objects, and as a consequence there is a sense of vitality to such experiences that abstract ideas possess only with prolonged experience. The golden calf of the Israelites, for example, supplied for the people just this perceptual form that made real to them the conception of deity that otherwise seemed so tenuous, so remote, so intangible, as hardly to be real. One of the conclusions that students of religion are finding confirmed on every hand to-day, by the way, is that even the material forms of their gods are regarded not as the actual divinity, but rather symbolize or typify something that is otherwise hard to apprehend. But however idols be interpreted there is no question that man is assisted emotionally by having some concrete objects to fear, or revere, or to worship, whether that object be an Ark, a calf, a sacred bull, an altar or a temple. Even in our best attempts to conceive of religion in spiritual terms, we still find use and even need for various forms of religious symbolism and ritual to which the religious emotions have become conditioned.

It is in the light of this principle of the emotional poignancy of objective forms and situations that we can understand the significance for the unsophisticated mind of religious relics. Thus there is for the naïve mind an emotional import in some relic, the bone of a saint, or even the Holy Grail, or a fragment of the Cross that is rarely equaled by some far more significant, intellectual but abstract logical conception. Was it not true, indeed, that the Crusades were fought to recover from "defilement by infidels" one of these physical objects associated with the death of Christ? Such objects, because they are perceptually real, have a tang of reality that is vital and keen and strong, and thus have a power to give body to the imaginative reproduction of the scenes implied, and so excite in a very realistic way the emotions of him who

thus lives representatively the facts that his eyes have never seen.

This is a tendency of the naïve, unsophisticated mind, we say, but it is a tendency that men do not outlive or mentally outgrow. Rather must it be concluded that, in the sluggish, undeveloped mind, objective stimulation of some sort is necessary for such emotional excitement, whereas to the more developed consciousness, ideas as well as objects can rouse the mind to a vital emotional reaction.

On the other hand, it should not be forgotten that the direction of all mental development is away from the sensuous toward the abstract, or if not away from the sensuous at least toward finding in the sensuous illustration and expression of laws and principles that are abstract formulations and generalizations of reflective thought. Religious development conformable to this principle grows in its essence more spiritual and less and less sensuous. To depend entirely upon the sensuous for emotional stimulation is to proclaim one's self still mentally immature, ill at ease, and incapable of dealing effectively with abstract ideas, the instrumentality through which all man's higher attainments have been reached.

How far and how effectively these abstract subjective factors can take the place of sensuous objective ones is more a matter of training and intellectual development than it is of the nature of the affective experience. But that certain minds with their training and habits are assisted by the symbolism and ritualism of the church they are accustomed to attend is as certain as it is that the sensuous factors play an important part in the æsthetic experience. That this symbolism does not express the heart of the matter is likewise as certain as it is that intellectual factors have also a part to play in such experience. What the sensuous appeal in religious worship

does accomplish, is to make concrete, though only symbolically, what were otherwise mere abstraction, and to crystallize and focalize the experience in connection with objects that have been repeatedly associated with the emotional reaction in question. Thus the building itself, the church, or cathedral, the organ, the music, the windows, as well as the more symbolic form of the worship in the Catholic service, all of these become endowed with association and significance that we sticklers for simplicity and spirituality fail to experience and so fail to realize. A crucifix may be to one disciple the most sacred symbol, to another the object of iconoclastic impulse, and to another a form of idolatry. But whatever the reaction, the sensuous object is the most effective means of exciting it because a sense stimulus is the primary form of stimulation. To depend upon mere abstract truth is too esoteric to be effective with many, although it is the goal, the ideal for all.

What our discussion does seem to impress upon us is the fact that to make even such tremendously spiritual facts as God, salvation, redemption, love, most effective over the minds of men it is helpful, if not indispensable, to give them concrete bodily form. That Michelangelo's picture of God with His inimitable gesture of command is more effective emotionally than the word "omnipotence," there can be no question. Were it not so, there would be no place or true function for art. So also, while mathematical truth can be most accurately expressed by algebraic formula, I notice that teachers in this abstract subject do not hesitate to use cubes, pyramids, and real conic sections. And is not the parable one of the best, if not the only method of making the way of life so plain that the wayfaring man, though a fool, need not err therein? To embody any truth in a material form is to assist the mind to a fuller, clearer, and a more realistic conception of its meaning, and to emphasize it by an emo-

tional accompaniment that makes it live and makes it last in the mind of him who has thus experienced it.

It is in the light of this same principle, also, that we can understand psychologically the dependence of every higher form of religion upon intermediaries between man and God. Jesus, Mary, and the saint, or Mohammed, or Gautama, these are beings like ourselves, though superior, but with enough of our common humanity to make them more comprehensible and so more real.

The part that the imagination has played in religion has always been a major one. Paulsen in his *Introduction to Philosophy* was not far from a great truth when he said that religion is a product of the poetic, that is, the imaginative function of the mind. Certainly, without this mental tendency to picture situations in the concrete, the course of man's mental life and of civilization itself would be radically changed, if it were not wholly lost. But this function of thought is no less important for the emotional life than it is for the practical. Imagined forms and situations affect the emotional consciousness only a little less effectively than do real ones. This function of the imagination is demonstrated once and forever by the place which literature and art occupy in the mental life of mankind. A reality that is nonsensuous, nonphysical, that does not directly affect the senses of man, if apprehended at all, must be apprehended either through the imagination or through the higher powers of conceptual thought. It is, I trust, needless to say, that we are now speaking not of fancy, of groundless phantasy, but of imaginative activity that is no less than reason itself a practical instrument of truth and of adaptation. Imagination is a means, not of transcending reality, but of sounding its depths when eye and ear have ceased to function. Imagination, as Wordsworth well says, is "mental exploration." To play fast and loose with facts seems to some to be the function of this mental activity. But

this is only idle dreaming, pure fancy, and is recognized as such by every student of the mental life. This is not the mind critically seeking truth. But there is another kind of imagination that is a real servant of truth and of practical human progress in every line of human endeavor. This fact, however, is too often lost sight of, while for the emotional consciousness, it is of the utmost significance. In all exploration and experimentation, it is only the *final* product that is mentally satisfying, that is, emotion producing in the best sense of the term.

Not until these products of mental creation have passed from the stage of make-believe to that of belief does the imagination play a serious part in emotions that affect conduct and action. So it is with the scientist with his atoms and electrons, and so it is in religion. But when the transition has once been made, when thought is regarded as representative of reality, then make-believe is ended, and the concept becomes an emotional stimulus of the first order. Witness the quarrels, and contentions, and even conflicts and bloodshed that have arisen not only in the religious realm, but in the political as well. Not from mere fancies and imagination do such disturbances arise, but from ideas and concepts believed in, and accorded a place in the very warp and woof of reality.

Such a conception of the function of the imagination gives both opportunity for, and significance to, its formulation and expression of the religious experience. Emotional significance does not await the discovery of absolute unchanging truth. It is enough that imaginative activity conforms to what is believed to be true. To picture Heaven and Hell concretely as did Milton and Dante, because such formulation expressed the best ideas of their age, gave to such word pictures an emotional poignancy that is different from the reaction of our own times. To-day the sense of reality with these ideas is feigned, then it was real as a possibility, if not as a fact.

We still react to them as literature, but Heaven, as it is there pictured, is not a hope, nor Hell a threat. There is fancy, there is phantasy, there is daydreaming under the impulsion of some desire, there is a feigned reality, fictitious and unreal, but the emotions that accompany such mental activity reflect this same sense of unreality, as we have shown above; but emotions that accompany the scientific imagination are as vital, as poignant, as impulsive, as practical as is the thought content that gave them birth. Religious persecution, for example, is impossible to-day because man is less sure of the specific dogmas that he accepts. Calvin and Knox and the rest believed absolutely, accepted completely, the doctrines for which they stood; consequently the emotions that clustered around them were as real, as vital, as much a matter of life and death, as were the concepts that they so earnestly believed.

There is with the concept of God a paradox that exists no less for the affective consciousness than it does for the cognitive. If the concept of God is purely psychological and subjective without any objective reality corresponding to it, but is still believed in, it would account for all the phenomena of the religious experience; but if it is regarded as, or admitted to be, only subjective, it at once loses all its power to influence either the thought or the lives of men. For the idea of God to have any practical significance conceptually or emotionally, it, like any other idea, must be regarded as representative of something, an influence, a force, a power that makes for righteousness, an object in the objective realm where nature is actually at work. We do, it is true, find emotional stimulation in contemplating ideas of our own, pure fancies they may be, but even this is due largely to the fact that they are regarded as possibilities in the actual objective world. And so it is with the idea of God; if I have the idea of a supreme being, the Creator of the world and

of all that is therein, and regard such a being as objectively real, that would seem to be all that is demanded to explain the various emotions that arise from the presence of such an idea. But as soon as we conclude that the idea is after all nothing but a subjective product, it at once loses all of its emotional potency. This fact, therefore, reflects the truth stated above that the emotional reactions are primarily reactions to objective conditions and situations. Whether there is any logical significance in this fact that may be adduced for the objective reality of my concept of God, we may well inquire into.

Before the concept of God can satisfy even in its primal essentials, the demands for a proper emotional stimulus, to say nothing of the intellectual interests of mankind, God must be regarded not merely as an imagined reality, but as in truth the *Ens realissimum*. Imaginary characters may in their sphere and way possess a certain reality and effectiveness as emotional stimuli, but such characters do not walk off of the stage and retain the traits and personalities represented thereon. Characters in literature are in fact imprisoned by the covers of the books in which they live and move and have their being. But religion to be significant must affect real life, real action, and not be confined, as are art creations to the realm of the subjective. Whence comes then this sense of reality that vitalizes religion and makes it, as in fact it is to so many, a dominant force in the actual lives of men? Is God a fictitious, imaginary being, as some contend, or is He a reality, objectively no less than subjectively? Does man create God, or do men progressively discover Him? The first phrase implies just this subjectivity that takes from the concept all that makes it vital, and the second implies mental activity, it is true, but suggests as well an independent objective existence. The distinction is fundamental, both intellectually and emotionally. While the imagination can do remarkable

things in making the unreal seem real, there are limits beyond which it cannot go. And religion for the most part lies beyond these limits.

The imagination, therefore, we conclude is a factor in the production of the religious emotions. How else indeed can a being that is nonsensuous, nonlocalized, nonperceptual, serve as a stimulus for the emotion we are now discussing? But the imagination here in its best estate is not merely fanciful or fantastic, it is more of the nature of the scientific imagination where the attempt is made to picture in concrete terms what is in closest accord with fact and principles of intelligent thought.

The affective life and the intellectual have in human experience been strictly and uniformly correlated. The more acute the intellect becomes, the more reflective and rational man's cognitive processes, the higher rise the conditions for effective emotional stimulation. Even that extremist in pure conceptual thinking, the mathematician, does not rise above the emotional in the pure air he breathes, but finds a glory, a perfection of order and of system in his most complex formulas. Stimuli that are emotionally effective for the child mind are no longer so for the adult. Refined literary taste, and genuine appreciation of great works of art both imply and demand a capacity for refined and subtle thought.

A keen sensibility and power of discrimination there must be, an acquaintanceship also with the ideas expressed, so that the mind from its own experience can fill in the picture, interpret it in all its richness and in its relationships to life. And this close relationship holds in connection with the idea of God. All along the way of man's development the intellect has been busy with the idea of God, critically examining it, rationalizing it, enlarging, refining, perfecting it. So persistent, so zealous has been this reaction that it is safe to say there is hardly a concept of science that has been so consistently under

discussion and critical examination as has this concept that lies at the foundation of man's religious life. While the religious attitude of mind is not critical, rather credulous, if you please, logical criticism has not been wanting since the days when reflective thought began, and slowly, but none the less surely, the idea has been purified of logical contradictions, of ethical and æsthetical weaknesses. An irrational God is a manifest contradiction, and while there are some who still swallow logical camels with a disconcerting facility, there are others who strain painfully at the gnat. Up to the full measure of any person's intellectual habits of thought, if not of his capacity, the concept of God must be purified and rationalized. Otherwise, it must fail to meet this prime condition of emotional stimulation. The world to-day does not get excited over Jason's fleece, or the Hesperides, or the fountain of perpetual youth, or even over the thought that Jerusalem was for so long under Mohammedan rule.

But it may be objected, there are so many people to whom the religious emotion is a vague, a shadowy unreality, if it is even experienced at all. Does not this fact better accord with the thought that religious emotion when it is experienced is a product of imagination pure and simple, than that it is a result of some definite intercourse with a spiritual reality? That such an explanation is a possible one must certainly be conceded. And yet the fact that there are so many minds of unquestioned intelligence and with such high standards of scientific accuracy and of logical proof that accept the idea of God, implies that the concept is not only capable of meeting rigorous requirement in this direction, but that it fills a logical requirement not otherwise supplied. Certainly it seems easier to explain the lack of such emotional experience on the part of those where it is not found, than it is to regard the belief in such a being as mere superstition, or tradition, or desire raised to the point of belief. Appre-

ciation of any significant idea or work of art is a matter of mental development and of education, and the fact that the beauty of some picture, or musical composition or poem escapes the mind of some individual, as a matter of fact indicates rather some defect of nature or of nurture on the part of him who fails to see and to respond to the beauty or significance of the work in question. Lack of appreciation for ideas that are profoundly significant is the normal condition of the undeveloped mind. Appreciation, and this implies a vital sense of reality in the object apprehended, is a real mental attainment. The fact that the normal eye apprehends color and form at a distance is better argument for their objective existence than is the fact that the blind man is unconscious of them for their nonexistence. However, we do not argue from the sense of reality that so many find in the religious experience to the objective reality of its object, but we would maintain that this sense of reality demands some explanation. Certainly it is not enough to prove the idea illogical, absurd, to admit that the imagination has been active in its formulation. Neither can we pass logically and with all confidence from this sense of reality to the reality of the object itself. The best evidence of the existence of God is doubtless logical, not emotional. And yet logical proof does produce this feeling of conviction.

With this apology, or as we are disposed to regard it, with this justification for holding that the religious emotion is as real, as vital for life as any other of the higher forms of emotional reaction, we shall without further words pass to a consideration of the emotion itself. In our discussion we shall follow essentially the same order that we have followed in our treatment of the other emotions, calling attention first to some of the characteristic traits of the emotion itself and then to the drive or impulsion that it excites. We shall for the most part have in mind this emotion in its latest highest forms

referring to primitive expressions chiefly by way of contrast or for purposes of emphasizing some particular factor.

That there is an æsthetic element in our conception of God is a conclusion of all who have reflected upon the matter. God, as he is conceived by religious thought to-day, is the most perfect, the only perfect being conceived by man. There is a very real, a very logical foundation for the "beauty of holiness." Holiness is wholeness. Truthfulness is sincerity, God is perfect unity, order, internal harmony not in sensuous form, it is true, but conceptually. The Greeks were but following out a requirement of logical thought when they would represent the gods first as physically perfect, then as more and more moral in character. Sin is ugly, discordant, self-contradictory æsthetically, as well as morally reprehensible. Such are the logical demands for the Godhead, and perfection here is æsthetically pleasing as truly as it is in any form of stone, or temple of sound. In God, therefore, we have æsthetic attributes raised to the *n*th power and the emotion is commensurately increased.

Man's reaction to such attributes, however, you may insist is æsthetic, not religious. Does not the argument if it is accepted discount rather than increase the significance of the religious emotion? To this we reply that the real essence of the religious emotion does not lie in this æsthetic response although it may well comprehend the latter as a component factor. The æsthetic emotion we have seen in the strictest sense is intellectual, impersonal; the religious emotion is personal in the most profound sense. The æsthetic reaction is my reaction to an idea, the religious one is a communion between persons.

Let us make this distinction clear. When I contemplate a work of art, I myself, in the sense of my practical and even intellectual interests, sink into the background. Philosophic pessimists like Schopenhauer have always

found in art relief from a dissatisfying world. For the time being the will to live, to strive to accomplish is quieted in the contemplation of the idea the artist has expressed. But the æsthetic reaction, it should be noted, is mine, *I* contemplate the work of art, *I* react to it, *I* feel its beauty and its value. But this I do not in terms of economic values, not in terms of my usual desires for successes, or fame, or wealth, but impersonally, intellectually, in terms of abstract principles. The picture or the characters are not regarded as personalities with whom I may converse, react reciprocally. They are there once for all, fixed in their unresponsiveness. They are to be appreciated as they are. If they mean much or little to me, that much or little I draw from my own mind. The artist has conceived the thought, has expressed it in its appropriate medium, but the appreciative reaction is mine. The fact that I find suggestions of deep import, of universal application, a new interpretation of life, does not make this a message direct from the artist, does not give it a personal character, as it were, but rather increases the sense of its impersonality.

The religious experience is, on the other hand, inherently personal in a twofold way My own, individual practical interests are here involved, *my* health and prosperity, *my* present and *my* future, *my* family and *my* friends, *my* country, to say nothing of my ultimate destiny, and the destiny of those attributes that I have come to esteem as ethically valuable. While religion has transcended fear as the great incentive it remains no less an individual matter than it was when this particular personal motive was prominent. In this respect, therefore, it stands in sharp contrast to the æsthetic experience.

But the thought we wish most to emphasize is the fact that religious emotion is personal in the sense that it implies a reaction of mind upon mind; its duality we may call it. It is felt to be more than subjective, more than

my own individual response to a situation or an idea. Religious emotion is a communion, a contact of mind with mind. In the sense in which we are using the term "personal," a dog may become in a very real way my personal friend. If, for example, I wish to play with him, he meets my desire and at once takes the play attitude in spirit and in action. His growls, his barking, his biting, have lost their sting. When I go for a walk, this spirit responds and there is nothing else he so much desires. If I offer him a tidbit, he tells me most emphatically that he wants it. If I am worried, he comes in soberness of spirit and lays his head upon my lap. In each case he meets my advances, responds, replies. Here in the sense we mean mind meets mind. These same reciprocal responses of mind to mind, are also the essence of friendship and of love. So do my friends and family respond to finer shades of conduct, to higher forms of feeling, and share with me my aspirations and my joys. But in all of this the inner truth is that mind thus meets mind, the "I" has become "We."

Now while it is far from correct to say that this sense of fellowship, of communion, is found in all religious experience, it is usually regarded as a factor in the deepest form of religious emotions, as in religious ecstasy, and is indeed the innermost essence of prayer. "Communion" is the holiest rite of the Christian Church because it is the most characteristic fact of the religious experience. God is no longer a God of fear, someone to be dreaded, and avoided so far as may be, but a Father to whom we may turn as children, sure of fellowship. Nor is this a mere figure of speech, or pious self-deception; it is the very essence of religious truth as it appears in, and is guaranteed by the emotional experience. Whether the guarantee is adequate is no part of our present discussion. We are only asserting that this consciousness of another mind in contact with my own is the

postulate of all refined religious emotion and thus comprises the innermost essence of this form of emotional experience.

There is, in the content we have found in the religious experiences, an explanation of the tremendous hold it has had over the lives of men, and of the great part that religion has played in human affairs. Even when religion was essentially fear, it rested upon the most direct and strongest motives ministering to self-protection. And where it has developed so that God is regarded as a God of love, it is based upon even a stronger motive than fear. Stronger in its highest estate than love of family, more universal in its import, embodying all that is highest and most ideal to which the individual has attained, a social motive that is not limited by family, nation, or race, or time, it has given to men the most sublime heroism as in the case of Father Damien, the most unselfish devotion as with Livingstone, the highest consecration as with Gordon or Grenfell, and the most powerful inspiration for purity and holiness in the lives of men in all ages. Take from the object of religious worship, however, those universal and æsthetic attributes of perfection, unity, intelligence, greatness, love, and this capacity to inspire is gone.

A tribal god is potently and openly partisan and a partisan spirit is obviously prejudiced and not to be honored or worshiped. Take away that personal factor, that contact of mind with mind, that alone generates love, and religious rules of contact become nothing more than marching orders, military regulations, commands not to be accepted and adopted as my own, but to be obeyed. Without this element of love the sense of personal obligation, of free participation is lost. No motive yet devised can compare actually or potentially with love either in strength or in possessing in itself not only its own compelling sanctions, but in its capacity to focalize all the

energies of mind and body for carrying out its behests. But love in its highest estate is born only of contact of mind with mind. Without this fact of contact of mind with mind it is difficult to see how this conception of God as love could have arisen, and a thousand times more difficult to justify it.

There is another question relating to the religious emotion, too fascinating to be overlooked or ignored. Is the religious emotion one, identical in its essence in spite of the various means employed for its excitement, or does it reflect the differences in the various religions and denominations that fill the religious world with such confusion? Are the emotions of Catholic and Protestant, dependent, as they are, upon different orders of worship, different rituals, or of Fundamentalist and of Modernist with stress laid upon different intellectual concepts and tenets, are the emotions of Christian and of Hebrew, and of Brahmin and Mohammedan essentially the same or are they as widely divergent as their religious practices and beliefs? Does the order of worship, for example, with emphasis laid here or there reflect itself in some modification of the resulting emotion?

Such minor differences we can only conclude are inconsequential. My love for my friend is not altered, either lessened or increased, as I approach him from one side or the other, or from the front or the rear. My love is determined on the other hand by the concepts or ideas I hold as to his interest in me, and by former experiences that I definitely recall, or vaguely feel as my thoughts center upon him. And so it is in religion. Whether I think of God's love as represented in the mass, or finding expression in discourse or prayer, or in silent meditation; whether I find Him only in a son divinely conceived and miraculously raised from the dead and ascended physically into Heaven, or in the laws and forces of nature, or even in an evolving world, matters but little in deter-

mining the nature of the emotional response, however important these questions may be for theology. Provided the capacity to respond emotionally is there, the particular concrete stimulus that calls it forth, it will be recalled, plays but a minor part in the excitement of any emotional reaction. Anger can arise through insult or injury, either to myself or to those I love, and yet it is anger in any case. Fear is called forth by a hundred different objects and causes and yet it is the same terrifying disturbing, exciting response. And so it is with the religious emotion. Whether that emotion is awakened by one ritual or another, whether in crowded cathedral or alone, whether through some representative on earth or contemplating Him directly, the emotional reaction is essentially the same.

The conditions really essential for the excitement of the religious emotion are two, one subjective, the other objective or seemingly so. Subjectively the religious emotion implies a mind sensitive to religious stimuli. And this in turn presupposes some exercise or experience in this direction. The mind unaccustomed to respond to such stimuli will fail to experience the emotional response just as certainly and as necessarily as he who knows nothing of art will fail to experience the æsthetic reaction. Religious emotion implies and demands education, active exercise, a mind grown sensitive to these forms of stimuli as necessarily as does any other form of emotional reaction.

Objectively, or conceptually, if you prefer, the way in which the Godhead is conceived does influence profoundly the resulting emotion, as the history of religion so abundantly shows. God conceived as a tribal god can scarcely fail to induce conceit, and a sense of superiority that hardens the heart toward other tribes and races. God regarded as a jealous or avenging god evokes religious fear, as naturally, as inevitably as any other source of

possible suffering. God regarded as primarily the rewarder of the faithful has always inspired fanatic zeal. God regarded as a God of love, as righteous, as holy, in the same way evokes our adoration and our loyalty. Given this basic conception and the resulting emotion follows. But whether this love be manifested in a son who gave his life as ransom for our sins, or more generally in the long and slower process of evolution, all of this is incidental to the underlying idea and hence inconsequential so far as the nature of the religious emotion is concerned. Much more so must be those still lesser differences that appear even in the most widely divergent sects of the Christian Church.

There remains to be considered the impulse that arises with the religious emotion. For if our conception of the emotion is correct, there is an impulse to expression, to action in the case of religious emotion no less than in the case of fear or anger or of the æsthetic emotion. We might generalize and say that religious observances in all times and places are the expression of this impulse. And in a perfectly valid sense this is true. But the nature and character of these observances are legion. As the concept of God has changed, so has the impulse to expression. When God was regarded as an angry, a jealous God, the primary impulse was to pacify His ill will by gifts, or offerings, or sacrifices; when, and so far, and so long as God was considered as a tribal god, appeals to His wrath upon His enemies and yours was altogether logical and proper. All care must be exercised not to offend, consequently auguries must be read and divine sanction obtained for all expeditions and even for the ordinary observances of life. But all of this you will say is religious archæology. It is. Nevertheless, it is religion running true to psychological form and illustrates how human conduct at every stage conforms to psychological principles, and that our generalization is valid between

wide extremes. What we desire is to identify some of the most important factors in the impulsion that comes with the religious emotion as we find it in man to-day.

If the central note of religion at its best is love, good will toward men, not fear, the motive of fear and its impulsion toward safety will be supplanted by the motive of love with an impulsion that is as radically different as are the two emotions themselves. Mind is inherently social in its make-up, is, in fact, complete only in contact with other minds. Finiteness, therefore, is tragedy without infinity, humanity is frailty without divinity, time is completed only in eternity, and these poles, religion contends, do not stand forever unrelated, and forever separated. That this contact of mind with mind is not confined to the human sphere is the postulate of all religion. But mind here meets mind not in eternal opposition and undying enmity, but in a spirit of friendship, of cooperation, of an ever-increasing comprehension and appreciation. That such a change in the mode of regarding the Godhead, and of man's relation to Him will profoundly affect the impulsion that the emotion generates, is as evident as cause and effect in any other sphere. Let us see, therefore, how in actual objective results fear gives way to love.

What, then, are the basic traits that grow out of and express the inner character of friendship or love between two individuals? It is in these that the impulsions we seek have their source. Faith, hope, love are usually regarded as the three prime attributes of the Christian religion. Regarding religion as, in essence, friendship between God and man, there are two other traits that must be added. Friendship or love implies loyalty no less than faith, and gives rise to a desire for, and enjoyment in the presence of the one beloved. To love friend or sweetheart, child or parent, or God Himself is to find pleasure and satisfaction in the presence of the person loved, that is, in

communion with that person. Thus it is without question in human relations and thus it is also in relation to God. This is, in truth, the basic fact that makes man a social being. Let us see how these appear in the religious experience.

Loyalty is essentially an attitude of mind but it is an attitude that expresses itself in action in a hundred ways. To be false to one's friend is to be at heart a traitor and to destroy the very foundation upon which true friendship rests. Objectively, to be loyal means to regard the interests and welfare of your friend as your own, aye, as even more important than your own. Love is not perfect that stops even at equality: perfect love always says not my will but thine be done. Loyalty as an inner attitude of love, therefore, in religion means devotion to the aims and principles that are comprehended in the idea of the kingdom of God. So has religion become one of the great institutions of society, as definite in its aim, as material in its equipment, as real as a social force, as typical in its organization and methods as government or education. So under another and less intelligent interpretation this loyalty expressed itself in the futile and needless Crusades; so in another enthusiasm it filled western Europe with cathedrals. To-day it finds its finest expression in missionary enterprise, and in work undertaken for those in direct need. Loyalty means dedication of one's powers and self to the carrying out of what we believe to be God's will on earth. "Consecration," is the religious term to connote the idea. The practical concrete objectives of the Church to-day are the visible expression of this loyalty to God and to His purposes and ends as they are understood. Love that does not find expression in action is psychologically imperfect and incomplete. It is as futile, as subjective, as useless in the workaday world of affairs as are the tears that flow for some tragedy or story or drama on the stage. Thus loyalty to the Jesuits meant

implicit and unquestioned obedience to their order, to the martyr it meant immolation of self, to the average true-hearted adherent to-day it means fidelity, and active participation in the work of the organization to which he belongs.

Faith in any religion is important but in none more so than in the Christian religion. Here it is quite properly held to be one of the three supreme Christian virtues. The reason is that in no other religion is the personal relationship between God and man quite so close, quite so intimate, quite so essential. Here faith is represented both as a duty and as a prerequisite of power for accomplishment. Even a little faith can work wonders, and lack of it means impotency. Now it is possible to conceive of faith as a kind of occult power whereby we can draw upon the infinite resources of God for the miraculous accomplishment of some startling modification of the laws of nature. And many indeed so conceive it. Psychology, however, like any other science, is most interested in the normal, the regular, the invariable. What, then, we ask is its place in this personal mind to mind relationship to which we have pointed as the essence of the religious experience?

Faith, as we interpret it in the more common sphere of human relationship, is belief in the right purposes, the good will of other human beings in their relations to me and to my interests. It is a social relationship existent only between individuals. We do not, properly speaking, have faith in the sun, in gravitation, or in electricity. Knowledge has here supplanted faith. It is in essence a form of belief, belief not only in the power but in the good will of another being. Religious faith, therefore, is the call to a belief in the personal and moral attributes of God, and even to a belief in the goodness of His eternal impersonal forces found in the world around us, even though they sometimes work us temporal ill. God, for

faith is an ever-active principle in the world to-day as in the past. He is Energy, and Life, and Power, and Purpose. Thus does He manifest Himself to human intelligence. For faith He is all of this and something more. He is for religion a Comforter, a Friend, a Companion, a Father, who has my interests, my eternal welfare at heart. He is a being with whom I may share my deepest and purest aspirations and desires.

Distrust, on the other hand, is the most positive enemy of good will and of personal friendship or love. Lack of congeniality may hinder the development of friendship, but distrust, or lack of faith, is a blight that kills this fairest flower in the garden of the gods. Faith, therefore, is an impulsion to draw near to God, to regard Him as the Great Friend, to commune with Him, and to find in that communion an exaltation of spirit, an inspiration to achievement that is as high as the Person upon whom it is fixed. If love means service and joy in serving, then faith is the condition for love, and love gives the inspiration, the incentive for the concrete activities that religion promotes.

But as we look around us and see religion at work to-day, the fact of regular religious worship must be regarded as one of the most tangible expressions of the impulsion of the religious emotion. While there have been in all ages variations in attendance, and, as always, there are those who assert that religion has lost its hold over the minds of men to-day, the fact that the practice has continued through the centuries, speaks eloquently of the reality and force of the impulsion in this direction. What is the psychological foundation of such an institution, and what does it tell us of the nature of the religious experience?

The strongest impulse in connection with friendship or love, if it be not to promote at all costs the interests of the one beloved, is desire for, and delight in the actual

presence of the favored individual. Love is attraction, and attraction is the desire to be in the presence of, and for communion with the one upon whom the affection is fixed. To love, therefore, whether its object be another person or the Deity, implies desire to be in the presence of the one beloved. And if this contact of mind with mind represents a basic need both for the intellectual and the emotional life, some impulse there must be to guarantee this need being met. This, it is needless to say, is the ideal, the logical justification for religious worship, the limit that has never been attained. In the concrete, what men want and why they attend services of this sort would require a different explanation, and a different terminology. And yet as religion develops these other factors tend to decrease, and the one we are emphasizing to increase. Religious worship and prayer are the acts in which this desire for communion is formally met. Motives, however, rarely come to the surface and show themselves in all their stark reality. And yet while they are discovered only by analysis, they are nevertheless one of the deepest and most vital forms of psychological or mental reality. So there are times when nothing less than communion or fellowship with this cosmic consciousness will dispel man's feeling of loneliness and satisfy this deeper nostalgia of the soul.

Whether God be personal or impersonal, a being with whom I can communicate, or impersonal Law has always been, and is to-day, a vital problem for religious thought. That the personal Christian conception of God may in the end give way to the impersonal pantheistic one is possible; but if, and when it does, one of the surest and most profound changes in the religious consciousness that will result is just this loss of what we have regarded as the essence of the religious experience. That Spinoza found an intense and a satisfying emotion in such a conception of God is true enough, but it was an emotion that was essentially æsthetic, not religious in its essence. He

himself spoke of it, it will be recalled, as the "intellectual love of God." Such may even be the philosophical ideal; but religion which is practical, whose purpose and function it is to translate the abstract in terms of the concrete and thus to give the finite an ever firmer hold upon the infinite, can never accomplish this end without the emotional factor as well. If it be true that religion would both lift man to God, and interpret God to man, and would introduce into the lives of men an impulsion toward the things that are above, that is, toward activities and ends of a social and ethical character, it cannot, so far as the author can see, dispense with the emotional factor in religion, for this, as we have shown, is from first to last, the way in which the abstract, the intellectual secures an effective impulsion toward objective expression. To understand, to feel a sense of value, to express in appropriate action, is the psychological order in all the higher forms of mental life, religion included. To leave out any one of these factors destroys the end for which they all exist.

REFERENCES

James. *Varieties of Religious Experience.*
Hocking. *The Meaning of God in Human Experience.*
Pratt. *The Religious Consciousness.*
Whitehead. *Religion in the Making.*
Coe. *The Psychology of Religion.*
Niebuhr. *Does Civilization Need Religion.*
Wieman. *The Wrestle of Religion with Truth.*
Gruehn. *Feeling and Emotion in the Psychology of Religion. Feeling and Emotion, The Wittenberg Symposium,* pp. 372ff.
McDougall. *Social Psychology,* Chapter XIII.

PROBLEMS FOR FURTHER STUDY

1. What are the attributes of music that have made it such a common and such an effective factor in religious worship?
2. What are the relative difficulties in getting men to feel their relationship to the Supreme Being and to their fellow men, in obeying Jesus' first commandment and his second one?

3. Is man naturally and incurably religious?
4. Which is more easily acquired, knowledge of a subject, or a proper emotional attitude toward objects?
5. What is the source of a child's ideas of God? Of his attitude toward such a Being?
6. Make a list of the sensuous factors utilized by the Protestant and Roman Catholic churches to stimulate the religious emotion.
7. What are the fundamental ideas used for the same purpose?
8. To what degree is the character of the emotion dependent upon the nature of the stimuli exciting it?
9. Upon the principle of "conditioning" can superior worth be justly attributed to spiritual factors?
10. Wherein lies the greater motive power of religion as compared with the æsthetic reaction?

CHAPTER XV

EMOTIONAL ATTITUDES

In the chapters above we have contended that the primary function of the affective consciousness in all its forms is to instigate the bodily organisms to action; action that is in general adaptive or useful either for the individual or for the species to which it belongs. This it accomplishes by giving a preferential worth or value to certain experiences by virtue of the pleasurable component that they elicit in consciousness. While some aspects of the emotional consciousness, because of the emergency character of the crises they are designed to meet, do show incoherence and lack of system, there still may be a certain organization and unity even here. At first sight, there seems to be little coherence or unity recognizable in the emotional life. Something awakens my anger or fear, I react, the emotion disappears and I pursue the more even tenor of my way until some other situation, often far removed from the previous experience, excites the emotional reaction again. The emotions are episodal, contingent, stand in little logical relation to the character of the stimulus and seem rather to defy unity and coherence than to express it. And yet organization and dependability there is, as is witnessed by those fixed modes of response, permanent interests and attitudes, that are at the foundation of what is known as character in the broader sense of that term.

If there is any one certain and significant fact that can be formulated concerning the affective life, it is that the response cannot be predicated from the character of the

stimulus alone. A harmless insect or an innocent animal may generate a greater fear response than some deadly peril. Words that may be a deadly insult from one individual may be a harmless jest from another. We have apparently well learned the fact that the intellectual significance of any thought functioning as a stimulus, is dependent upon the reaction of the receiving mind. The same lesson, though in a different form must also be accepted as true of affective responses. If we are looking for unity and coherence in the affective life, we can find it not by a direct study of stimuli and responses, but by turning to certain emotional attitudes that are acquired by every individual in the course of his experience with the world with which he is in such constant intercourse. For these affective traits or habits of response we are using the term emotional attitudes.

Certainly any psychology that attempts to understand human nature or human experience without giving consideration to man's likes and dislikes, his loves and his hates, his hobbies and his aversions, his antipathies, his enmities, his loyalties and ideals, is in itself an open confession of inadequacy and omission; an omission, moreover, not of things that are incidental and trivial, but basic and fundamental. The objects around us as such are by no means on a par and capable of being substituted one for another. Similarity and even identity are conceptual ideas and may satisfy the demands of intelligence but not of the affective consciousness. To science one atom or molecule is as good as another. They have no history that differentiates one from another. They are impersonal counters in the business of intellectual comprehension and explanation. But for the emotional consciousness one child is not equal to another, one church or college as good as any, my friend exchangeable for yours. Emotions come in the course of time to cluster around my home, my family, my country, my dog, my college, my

church, my club, my friends, and substitution will not replace what I may have lost. As a matter of fact society, whether in the small or in the large, is not a mere aggregate of individuals, one as good as another, all of equal value. Rather, it is for every individual a hierarchy of values, some individuals being regarded as inestimably valuable, some regarded with indifference, some negatively valuable. Upon this basic fact society is divided into groups, large and small, some individuals regarded with favor, some with disfavor. Groups are thus bound together by common interests, common hopes, common aspirations, common enjoyments. Through these interrelationships are developed all sorts of affective phenomena, rivalries, antipathies, class feeling, friendship, common loyalties, and that finest human relationship that now and then gives credence to the idea that marriages are made in Heaven. This then is the social order in which we actually live our lives, play our part, and find expression for the emotional capacities that we possess. A world of uniformity for our emotional nature is a flagrant abstraction, untrue to fact, and positively erroneous for any theory of human conduct. It is an ideal best suited to intellectual comprehension, but leads us away, as often as toward the real forces that are shaping the lives of men.

The very essence of the affective consciousness from its beginning in sensuous pain and pleasure to its highest expression in the æsthetic reaction is differentiation, evaluation, distinction of worth, preferential selection. If the supreme goal of the intellectual consciousness can be regarded as unification, the ever-present tendency of the affective consciousness is differentiation. And yet all of this is not out of harmony with organization, and with certain habitual ways of evaluating the various experiences of life.

If then we live in a world in which objects, and institu-

tions, and individuals have different affective worth, what is the process by which the differentiation is made? Why is it that the organism comes to assume in some cases a favorable, in other cases an unfavorable, attitude toward such objects? Is it a process that can to any degree be directed and controlled, or are we here at the mercy of circumstances? As bearing upon these problems in a general or statistical way, we note that there is among the individuals of any particular community a marked similarity, not to say uniformity, in these emotional reactions or attitudes that obtain. The same general standards of conduct are found in every group, especially in regard to these codes and manners that are conventional or moral; there is the same evaluation of various institutions and duties, and the feelings of approval and disapproval are so widely distributed that we speak of "public opinion" or "social" approval or disapproval. If I am interested to look for that which is common to human nature, I have no difficulty in finding much upon which Gentile and Jew, Greek and Mohammedan, rich and poor, patrician and proletariat can agree. We all share in a certain common fund of emotional reaction that constitutes our common humanity. These, since they approach universality, might seem to be innate or inherent. And yet not necessarily so. Even these may be potential, called out and developed under an environment that is as essential as the capacity itself. And when we come to that which is individual or social only in a limited sense, the case for experience and the influence of the social matrix seems almost demonstrative. Thus there is uniformity in emotional attitudes as well as individuality. To try to understand both is the purpose of the chapter in which we are now engaged.

To explain the constant attitude that man assumes toward the various objects of his environment McDougall, following out and developing a suggestion of Mr. A. F. Shand, formulated his doctrine of the "sentiments."

A sentiment as the term is used by these two writers is not an emotion among others, but such a modification and organization of the inner affective tendencies that there is a predisposition to experience certain emotions in connection with the particular objects upon which they are focused. There are two classes of sentiment, "love" and "hate." The former predisposes us to emotional reactions that are favorable to the person or objects involved, the latter to emotions unfavorable to its object. Thus with a sentiment of love for a person, I am predisposed to find pleasure in his company, to be interested in what he is doing, will rejoice in his welfare, will be slow to wrath, not envious, will fear for his safety, but have all confidence and trust in his attitude toward me, etc. With a sentiment of ill will or hate, I will be quick to resentment, distrustful, will not grieve at his misfortune, and sympathy and pity will not flow forth in such generous quantity as it will toward those I love. All of this he explains in connection with the various instincts and the emotions of which they are the subjective expressions.

Now it were idle to deny that we have here attention centered upon an important aspect of human nature. Facts are facts, and must be accepted. The explanation, however, offered for these facts is a different matter, and must be evaluated upon different grounds. And so it is with the case in hand.

The difficulty with McDougall's explanation is that it applies too rigorously the instinct theory, and so he is led to extremes that seem at best artificial and inept. For example, to regard the favorable attitude toward one's own college or country as an expression of the "tender emotion," the subjective expression of the parental instinct, is a somewhat far-fetched use of the instinct that is so concrete and personal in its normal excitant. But for the formulation of the problem there is little criticism to offer. We are inclined to use a different term because

"emotional attitudes" seems to express more accurately just what the problem is. It also suggests that the presence of a favorable or unfavorable attitude is a matter of training and of experience, as I believe that it really is. Thus loyalty to one's country is common, but not necessary, loyalty to one's church common but variable in the particular direction it may take. And even the religious attitude of mind while common to Barbarian and Greek, to Gentile and to Jew, is not something that can be taken for granted, as if it arose independent of teaching and training in childhood and in youth. Some of these emotional reactions will in the course of normal human experience arise, but their silent presence in the social environment is by no means a sufficient guarantee that they will be awakened in the mind of every individual who breathes this atmosphere.

All things considered, therefore, we are here on the threshold of a problem that is fraught with the deepest practical consequences. If character is to be regarded as consisting of the sum total of attitudes that we take to the various situations of life, then the problem of character formation is here involved. In the formation of favorable and unfavorable attitudes, we are determining the future interest of the individual, enlisting his support or his opposition to certain objects and ends, fixing his modes of reacting to various situations, and establishing the subjective values that will dominate his conscious and his active life.

In any consideration of man's emotional attitudes toward the objects of his material and spiritual environment, attention is soon directed to the fact that they may all be classified under one of two heads. There is thus in all affective consciousness a natural dichotomy, so that the attitude toward objects, or ideals, natural phenomenon, or products of human acts or thought, is always one of approval or disapproval. Sensuous stimulation is

either pleasant or unpleasant, objects, when perception gives them as distinct entities, are attractive or repellent, beautiful or ugly, with indifference as a theoretical limit somewhere between. People call forth our love, or good will, or dislike in varying degrees. Institutions social, political, economic, religious enlist our fealty or our distrust and disapproval. Even such comprehensive organizations as our political parties are based upon this same psychological distinction. One party favors Protection, or a more extended Federal control, the other is opposed to this and in turn prefers Free Trade and States' Rights. And as it is with objects so also is it with our mental activities. Imagination with one content is enticing, alluring, with another depressing; ideas, and ideals are regarded with the strongest emotional approval or disapproval. Thus through the whole gamut of human experience where there is any affective component, it can be classified as favorable or unfavorable, pleasure giving immediately or *in futuro,* or displeasing actually or potentially.

Doubtless this classification rests primarily and primitively upon economic or biological factors and can be traced back in unbroken series to the positive and negative reaction of the lower organisms. While we must think of this affective factor as a selective principle existing for the sake of adjustment or adaptation, in its higher expressions it is a servant not of direct economic needs, but as we have shown, of the higher intellectual and ethical interests of life. How far removed these interests may be from primary biological needs is suggested by the fact that they may even lead the individual to risk his life for some ethical or intellectual interest that is at best but a forlorn hope. These two attitudes may be characterized in language as the "Yes" and the "No" reactions. The "Yes" attitude means continuation of the present reaction, approving and affirming the present stimulation, or

active effort toward the realization of an end not yet made real. The "No" reaction means cessation, avoidance, rejection. These manifest themselves in the responses we make to simple sensory stimuli and in attitudes that are favorable or unfavorable toward certain objects, ends and purposes in life. For the organism they are as fundamental as Hamlet's "To be or not to be." They are in fact the same problem expressed not in language but in active inner tendencies and impulsions. They relate not merely to simple sensuous stimulation, although they have their origin in this field, but they keep pace with man's mental development and apply to purposes and ends that are both ideal and altruistic in the finest sense.

The aim of modern psychology, however, is not attained when such generalizations are formulated or even established. What it seeks is such a detailed description of the process that it can not only be understood but controlled.

But just what essentially do we mean by love for another individual? Love for another whether in the form of friendship, of romantic love, of parental, or of the broader, more inclusive Christian type is in its essence an active interest in the welfare and happiness of the other person or persons involved. It is in its last analysis "good will." Objectively it means interest in what the person is doing, solicitation for his or her safety and welfare, active effort, when opportunity arises, to promote that welfare. McDougall has called attention to the fact that under a sentiment of love the instincts are directed to action favorable to the object upon which the sentiment is fixed, while under a sentiment of hate the effect upon the instinct is the opposite. We can accept the explanation without reservation so far as the favorable or unfavorable reaction is concerned, and also as it indicates the widespread influence of such an attitude of mind.

Thus love does make us quick to resent any injury or

insult to its object, and hate or dislike deadens this reaction. We fear for the safety of the person we love as we do not for our enemies. We are more interested, show more curiosity, in what our friends and loved ones are doing, than in persons that we dislike. Sweethearts can write and receive a letter a day without satiety and mothers proverbially are inclined to talk of their children. Accepting for the time McDougall's instinct terminology we may formulate the mental effects of the two opposing sentiments as follows:

Love (Good will)	*Instincts*	*Hate (Ill will)*
—	Anger	+
—	Fear	+
+	Curiosity	—
+	Parental	—
—	Disgust	+

Thus with those we love we are slow to anger, we have no fear, we are interested in what they do, our help is easily enlisted, and we are not easily moved to scorn or disgust. Toward those for whom we have developed a sentiment of ill will we are quick to take offense, are filled with distrust or fear, are not interested in their doings for their own sake, although we are glad to hear of their misfortunes, our sympathy and help are not readily called forth and we are quick to criticize and to regard their actions with disgust. In this connection Baldwin's definition is worth considering:

> A sentiment cannot be felt all at once. It is a general susceptibility to manifold kinds of emotions varying with circumstances. Thus friendship is a sentiment, and is manifested in the sorrow of parting with one's friend, the joy of meeting him after prolonged separation, jealousy of those who engross his interest so as to exclude us from it, hope for his success, fear where he is in danger, anger against his enemies—all these emotions belong to the sentiment of friendship.[1]

[1] Baldwin, *Dictionary of Philosophy and Psychology, Vid.* article on "Sentiment."

Love and hate are therefore pervasive, the one directed to social good, the other to social ill. Love is constructive, promotes coöperation and social solidarity, hate acts as positively in the other direction. Psychologically as well as ethically there is adequate foundation for regarding love as the greatest thing in the world. It means a pronounced mental set, an inclusive and pervasive reorganization of one's bodily and mental powers to promote the welfare and interests of the person or persons, the institution, or ideal concerned. Let us see, then, whether we can sketch briefly the process by which such an attitude is developed.

For such a study we turn for pedagogical reasons to the common but little understood subject of romantic love. Can we identify even in outline the steps by which this intense, and relatively permanent attitude toward another person is formed?

In such a case as this, the theory of conditioning, it seems to me, shows an inadequacy to explain even the primary facts involved. This theory if it is to apply in such an experience would be somewhat as follows: The presence of some member of the opposite sex when we are, for some other reasons undergoing a pronounced visceral and sexual excitement, would serve to condition this emotional response to that individual, so that after a few repetitions of this experience the person comes to serve as an excitant for this response. Such an explanation, it will be noted, would serve at its best only to explain how the individual would come to call forth a mental reaction already complete in itself. Furthermore, it offers no explanation why the reaction is so uniformly conditioned to a member of the other sex, to say nothing of age, color, social status and all the other conditions that are so often involved. While the development of romantic feeling is often strong enough to defy reason and common sense, it is after all not so utterly irrational

and irrespective of social, moral and personal considerations as this explanation would make it to be. That something of this sort does occur occasionally we do not deny, but when it does we regard it as infatuation and to a large degree as abnormal, not typical. Thus conceived Cupid is not only blind but an imbecile as well,

That there is in romantic love, a love between members of the two sexes, an instinctive basis in the sex relation is a basic fact recognized in all discussions to-day. The tendency to-day is to overemphasize, not to underestimate its importance. To regard sex attraction as the sole factor involved is to get back to the caveman stage of human experience, not to rise to the full possibilities of man's present emotional interests and capacities. To expect the sexual element alone to control all the various activities and interests of life, or to find in it the explanation of the real affection so often found in the conjugal relationship is evidence of both credulity and shortsightedness. Sex excitement does not look to the interest of the other person involved, but to its own gratification. And when this end is attained there is often the greatest indifference to the welfare of the other participant. Such were the facts in the days of Amnon and such are they to-day. Romantic love may and does include this factor, but it does not find its full or adequate explanation in this alone. On the other hand we would not discount this factor in every normal human life. For the present, however, we are more interested in the splendid structure that has been erected and superimposed upon this basis than we are to insist that this is the foundation stone of the whole development.

The most outstanding point of distinction between a true emotion and a sentiment is first that the former relates to some specific act while a sentiment is, or may be all inclusive. Thus the sex impulse while normally intense is directed to one specific act, while true love embraces

every interest that leads to the welfare of the one beloved. Then again, the true emotion is but a temporary fleeting reaction while a sentiment is a relatively permanent, abiding interest in the person involved. How does the latter develop from the former is the question we seek to answer.

The first question to arise as we seek to understand this common form of human experience relates to the stimulus that excites the reaction. Surrounded as men and women are to-day by scores of individuals of the other sex, why is it that some one individual becomes the focus for an emotional reaction, and around that person rather than some other this romantic attitude is formed?

What is it that gives to one individual rather than to another a preferential worth in this direction? That the matter is obscure, if not highly mysterious, is evidenced by the fact that it is next to impossible to predict in a group of any size just which individuals will be attracted to each other. Prophecies in this direction are hazardous in the extreme. Before we attempt to answer this inquiry, however, there are one or two points that it will be well to keep in mind.

If there is such a thing as a sex instinct, as I am inclined to believe there is, this will serve to direct attention to certain characteristics of the reaction that must not be overlooked. Assuming for the moment the reality of the instinctive factor we can say that the principal reason why people fall in love, to use a popular phrase, is because it is the normal, the natural thing to do. Man is so constituted both physically and mentally that at a certain age, interest in persons of the other sex is as natural, not to say as inevitable as hunger. The subjective factor no less than the objective must be reckoned with if we are to get an adequate understanding of this particular form of human behavior. High explosives, if we may use such a comparison, require the most refined, the most exact

application of chemical law for their successful preparation. Through a long series of operations, the ingredients are prepared, passed through stage after stage, washed, weighed, mixed in exact proportions, brought at last into intimate chemical union, placed where wanted and a fuse attached. This union, however, is a fragile one: apply the proper stimulus, insignificant though it be, and a tremendous energy is set free. The important point for an adequate understanding of the reaction is more the nature of the explosive than it is of the fuse. And so it is in the case before us. Moreover this holds true whether we hold to the extreme instinct hypothesis, or that of experience and habit. In the former case, it is nature that has prepared the elements, combined them, proved them through the ages, and so guaranteed the result when some vision of loveliness, some deed, or even some insignificant word or act unlocks the stored-up energy of the emotional life. Under the latter theory it is experience that builds up the complex machinery and explains the reaction. But whatever the theory accepted to explain it, the fact stands.

Without this inner factor recognized and understood, love is a mystery, a paradox, a madness. To respond to so slight a preferential stimulus with such a tremendous outburst of emotional energy is an anomaly, an act beyond apparent sanity and common sense. Even with this inner disposition recognized and given its due weight, it is difficult at times to account for the preferences of our acquaintances and friends. And whether all of this is a process of maturing of inner factors or the result of experience, does not affect the result as we are now considering it. This much, however, is clear; with the reservoir of energy rising through the years of early youth to higher and higher potentiality, whether as a product of inner nervous development, or through the influence of suggestion and intercommunication, it becomes a simple

matter to find circumstances that will serve to unlock and even direct this emotional overflow.

If this explanation be true, there is no necessity for uniformity or even similarity in the stimulus that first calls forth this emotional reaction. Given this inner predisposition in its pristine vigor and all that is really essential is some stimulus that will receive a preferential attention, and following this, some slight nourishment for the emotion thus begun. As an effective stimulus to the reaction, popular verdict would perhaps award first honor to personal beauty. A beautiful face, however, by no means has the value often assigned to it. It may serve as a first call to our attention, but by no means is sufficient to hold man's interest in the absence of other mental attributes. It is, furthermore, by no means indispensable, nor does it in any way add to the intensity or permanence of the affection felt for its owner. In its absence and often when it is present, chief dependence is found in other qualities of mind or character. The characteristic reaction to beauty is admiration, which may or may not be transformed into the tender passion. Beauty failing, musical ability, vivacity, brilliant conversational power, a display of physical strength, or athletic prowess, acts of heroism, a manifestation of sympathy, some little act of courtesy, a smile returned or word of greeting, some little mannerism, and far beneath these more solid virtues, the accident of social position, or wealth, or beautiful clothes, or stylish ones, any one of these may serve to attract favorable attention, and the imagination can do the rest. The first act of the drama is easy and in many cases often repeated, the later stages are the uncertain ones.

The one safe statement that can be made about this process of "falling in love" is that *attention* must in some way be focussed upon the object of this emotional reaction. Not that this is enough, but it is psychologically indispensable. For an emotional reaction, attention is as

necessary as it is for an intellectual one. Until attention is thus directed to a person, a work of art, a natural object, or to an idea, there can no more follow a pronounced emotional response, than there can a highly refined and abstract logical reaction. The first step, therefore, in the development of romantic love is as easy as it is clear, but it does not carry us very far. The greater problem is not to attract attention, but to hold it. The real problem is how so to influence the consciousness of the individual that the imagination will be active even in the absence of the individual, for it would be a fair approximation to the truth to say that the imagination is hardly less potent here than it is in the appreciation of a work of art. When in hours alone, the imagination brings back moments of keen joy, and begins to paint visions in which this person plays the leading rôle, then does the vital part of the emotional reaction begin.

But this first call is by no means the whole or the adequate account of a true and enduring love. A lifelong attachment and a deep and lasting emotional attitude cannot rest upon such a fragmentary and fleeting basis. Not such is man's affective life even in its most instinctive and impulsive forms. The thrills of yesterday lose their poignancy, and true affection thrives best upon a regular diet. The mere sex appeal, therefore, however intense, is not inclusive enough to serve as a sufficient foundation for a mind that is intellectual, religious, political, artistic, parental, social, ambitious, studious, mirth loving, and all the rest. Man does not, Freud to the contrary notwithstanding, live for sex alone. It is only as these factors enter into the relationship between two individuals, and as courtesy and consideration are constantly shown, only as purposes are unified and mutually held, only as common interests are found and striven for, only as joys and sorrows are mutually shared and endured that the physical is transcended and the spiritual unity attained.

Romantic love is not some magical, permanent attitude of mind gained in a week, or a month, or a year, a love so deeply ingrained in the individual that it defies monotony, boorishness, coarseness, dullness, neglect. Point out for me those attributes of character and of intelligence and of personality, those personal habits, those fresh surprising slants of intellect that enliven any topic, that ever-active sympathy, that community of interest and of taste that are essential for a true and lasting friendship between any two individuals and I will name for you those qualities of mind and of character upon which a permanent attitude of love depends. In the one case, these may function alone, and in the other, they may be superimposed upon sex attraction, but in either case they form a vital, component part of the total attitude. Sex attraction in itself is emotional, temporary, ephemeral, an emotional attitude is something fixed and relatively permanent. The Brownings, for example, were great lovers, because they were great and congenial minds.

The solution we seek, therefore, cannot be found completely by reference to the one factor of sex, however basic and powerful it may be. The sex motive may be the inner impulsion that first directs attention to a member of the other sex, and even the foundation of a true and lasting affection for this person. But any building needs superstructure as well as foundations, else the dwellers therein are not far removed from the status and modes of life of cavemen. And so it is in the case before us. The principles of the affective life that we have discussed above apply here as well as in the specific fields examined.

There is one other factor that we must not fail to mention in connection with the development of this romantic sentiment. We have already attempted to show what an important factor the imagination is as a form of emotional stimulation. And it assumes, we contend, com-

mensurate significance in the case under discussion. It is a question not to be settled offhand, whether the actual presence of the party is more effective in arousing the gentle passion than are the visions and daydreams, that come to consciousness in his or her absence. The experience coming as it usually does in the adolescent period when the physical and mental fires burn with pristine ardor, there is no theme quite so enticing or so alluring for the imagination as visions of moments or hours spent together. Such visions, it is needless to say, awaken an emotional reaction, which though based upon imagined facts, is nevertheless regarded as potentially real. Indeed, it would not be far from the truth to think of the sex factor as efficient primarily by just this control of the thought and imagination of the subject involved. If some general statement is desired, it might suffice to say that romantic love has its roots in every major interest of life, sex, home, family, social enjoyment, economic interests, desire for fame as well as in those personal relations found in friendship, sympathy, mutual service, courtesy, and all the rest. Wherever some real interest is actually promoted, or even supposed to be by this close personal partnership, and pleasure results from the consummation of such desires, then and there a new bond of union is established. To be lasting and firmly established love must be anchored by roots that spread out in all directions and reach the manifold interests of life.

In the development of any emotional attitude time also is a factor that must be taken into consideration. Here as in many other activities it imposes conditions that are absolute, "Love at first sight," in other words, is psychologically as impossible as maturity at birth, or education "while you wait." It is true that an emotion can be excited almost with the speed of reflex action, it is of their nature and function so to come to their majority: but a sentiment, an emotional attitude like other habits, de-

velops only from repeated experience. Doubtless there are instances of emotional attraction at first sight and from this has developed an emotional attitude that has proven to be life's major passion. But attraction at first sight and an affective development that takes into consideration all of these major interests of life are as different in their character as being inoculated with a few bacteria and the final results of this inoculation.

One other illustration of the development of a favorable emotional attitude we shall give, an example all the more illuminating because there is here no question of any instinctive factor as its starting point. We refer to that rather unique and significant attitude of mind known as college loyalty. What is the process by which a freshman, without any pronounced emotional bias, comes in the course of a few months or years to build up in his mind a distinct and a favorable emotional attitude for this *Alma Mater* that may live and help to mold his reaction for decades? The situation is ideal in many ways for psychological analysis; there is no instinctive factor to be considered, the change comes normally in the four years open to observation, it is an end consciously aimed at or at least desired and expected, and the routine of college life is regular and relatively unvarying.

It would be incorrect to say that all freshmen arrive on the campus free from all emotional bias. The college has prestige of some sort we may assume, age, size, prominent alumni, athletic prowess, and tales favorable to the college may have been recounted by teachers, or fathers or some alumnus who takes his scouting duties seriously. Thus the mind is not emotionally a *tabula rasa,* but little more has seldom been done than to prepare the soil for the seed soon to be planted.

An enumeration of the chief factors that are operating on the life of the average college student is not difficult

to make. There is classroom work, the prime factor for which the college is supposed to exist. There are the friendships formed, the mingling of men and women of congenial tastes and common interests. Those friendships are, by the way, some of the most intimate and most lasting of life. There is the fact of daily association with a group, not the more personal fact of friends, but the formation and participation of very definite and very strongly accentuated social groups, the class, the college body as a whole and the smaller bodies, fraternities or the various clubs, that have both an intellectual and a social background. Then neither last nor least, so far as present explanatory purposes are concerned, athletics. Besides these more or less characteristic factors there are all those little daily experiences, social functions, that while not of the college life directly, are associated with it closely enough to leave a pleasurable impression that is incorporated into the total reaction to college life.

From the point of view of permanent emotional results, the classroom routine and study do not, except in unusual cases, loom large. With a student of keen intellectual interest and one who has specific intellectual problems to be solved, a course in that subject may be the occasion for an intellectual awakening and a fixation of interests that is epoch-making in his own individual life. But sudden transforming intellectual conversions are even more rare than deep and lasting but sudden religious ones. It is not so much the subject usually upon which the emotional life is centered, as it is the man that has appeared in his subject. Furthermore, the intellectual facts gained at college are destined to be depleted in two ways; first, by being forgotten, and second, by being soon transcended. Classroom work, therefore, we must conclude, is not well adapted to serve as the basis of a deep and permanent and even partisan interest for one's *Alma*

Mater. The routine involved in this phase of college life is also designed more to counteract than it is to initiate strong emotional reactions.

Furthermore, classroom work in physics or astronomy, or psychology, or biology, at Harvard or Yale or Princeton, is not subject to the impress of this campus connection. There is no Harvard physics or Yale psychology, or Princeton biology. Classroom work in our colleges is done, not under the inspiration of a college name or seal, but under the common and more comprehensive name of Science or Art or Philosophy. While the mere fact that this is done on one campus and under the environment of one college or another does establish certain associations, still, only rarely is the emotional reaction to such intellectual activity pronounced enough to account for the attitude we are seeking to explain.

But if classroom work and its attendant preparation, what President Wilson at one time called the main ring in the circus, is not sufficient to explain this fact of college loyalty that soon awakens in the mind of the student, its source must be looked for in the other activities of the student body. Some of these have been enumerated above; it remains to call attention to the process by which they are made to yield returns in the development of this permanent emotional attitude. First, as to college friendships; this must be regarded always as one of the potent factors. The congenial life together of men and women of like tastes and interests, the comradeship and fellowship together, whether in fraternity houses, or clubs, or friendly evening discussions in their rooms, discussions of the major problems of life and of reality, or the lighter entertainment of evenings of rollicking frivolity, these all help to bind individuals together and by association or conditioning develop at the same time a feeling of friendliness toward the institution under whose ægis these experiences were found. Friends, as Stevenson has told us,

are one of life's greatest treasures, and it is one of the oldest and most basic facts of the mental life that both pleasures and pains are conditioned to the place where they were experienced. Thus the sharing of these experiences together, the excitement of athletic victories, the hope of future ones even in the shadow of defeat, the interest aroused in great discussions, the anticipation of life so keenly felt at this period of mental development, the thrill that comes from intellectual victories, the joy derived from expressing one's own ideas, the satisfaction found in various sorts of self-assertiveness for which college life offers manifold opportunities, these all are found in the normal life of the college, and all leave a residue of feeling associated with college life and so conditional to the institution where they were experienced.

But we cannot in this discussion pass by without specific notice that great American institution—intercollegiate athletics. From a purely psychological point of view, what shall be said of the value of this form of athletics in the formation of the attitude of loyalty and allegiance to one's *Alma Mater?* We venture the following statement: Had a group of our wisest psychologists been asked to devise some means of engendering and of promoting this feeling of interest in and loyalty to the institution, I doubt whether they, with all their lore regarding human conduct, could have devised a more effective means than this one that has grown up from its own inner impulsion during the past half century. A college loyalty that is based upon interest in athletics alone is far from being the most desirable type. And yet what it lacks in quality is partly compensated for by its intensity. Few are the college interests that call forth such enthusiasm, such zeal as those connected with intercollegiate contests; few are occasions when crowd excitement reaches the height that it does both in anticipating and in celebrating an athletic victory; few are the interests that will elicit from the stu-

dent the same concentration, the same discipline and self-control that training for such contests demands.

For men to be bound together with active enduring ties it is now generally conceded that something more than mere association and propinquity is needed. The complexity and diversity of intellectual interests of our universities to-day is more divisive than unifying. What is needed to solidify the student body into a coherent social group is some objective in which they will all participate emotionally. This demand athletics supplies and is in this respect a moral substitute for war. That college loyalty is notoriously a partisan feeling, and is not justified by facts, does not discount its intensity or its influence over the minds of alumni. Doubtless there is here a generous amount of rationalization. By all the practical economic, or intellectual standards of value involved, what difference does it make whether one team or the other wins the game? The business of the country will go on unperturbed, the work in classroom and laboratory will, after a brief interruption, be calmly resumed. Is not the real significance of a victory rather accurately portrayed by the fact upon which it rests, namely, that a piece of inflated pigskin was carried over a particular line of lime?

But the emotional interest! that is something here as elsewhere that is not proportional to the practical or economic or intellectual interest involved. To contend, however, that the effect of intercollegiate athletics is emotional, not practical, so far as the emotional attitude of loyalty is concerned, is in no way to discount its effectiveness. As a matter of fact we have here but one instance among many where the ultimate value rests not in some material practical benefit, but in its capacity to excite some pronounced emotional response. Why, for instance, should college professors, men with keen, active intellec-

tual interests pick up the daily newspaper and in all probability turn first to the sports page, rather than their scientific journal? Why will a prize fight or a football game attract thousands and draw gate receipts up in the hundreds of thousands, when the brightest mind of any age working on the most momentous problems that confront the human race, would do well to get the hundreds only? The answer is that human beings have two standards of evaluation, one intellectual, the other emotional, and they are willing to pay more for satisfaction for the latter than for the former. Little wonder is it, therefore, that emotional factors, not rational ones, play such an important part in explanation of human behavior.

In the consideration of the factors that are productive of a favorable and a relatively permanent emotional attitude toward country, or college, or toward the object of religious worship, it would be the grossest oversight not to mention the influence of music as exemplified in patriotic songs and hymns. I say a favorable attitude, for it seems to be a fact that hostile attitudes rarely are sung. Now and then under some strong incentive a hymn of hate may be written, but one must look long and carefully to find a good example of real enmity appearing in the form of music. In the production of an emotional attitude toward country or college or toward God, it is possible that no one other single factor counts for more than the songs that are sung, that is, for the ideas and sentiments that are found in verse and sung to music appropriate to such a content.

There are several reasons for such a belief. In the first place the words or ideas expressed have a conceptual connotation favorable to such an emotional reaction. And words do mean something, however mechanically they may be repeated in singing. Then again, singing is active participation in a general or group action. Group singing

is, in fact, an illustration of the most concentrated action and coöperation known in human experience. The thoughts of the group are thus perfectly synchronized by the words of the song and by the rhythmic factor. The emotional pulse beat of the individual thus becomes identical with that of his companions. All of this is further accentuated by social facilitation, the presence of others experiencing the same emotional excitement. College songs, therefore, are potent means of accentuating and solidifying the emotional reactions that cluster around one's *Alma Mater*. The same facts hold true in regard to the sentiment that one builds up for country, or church, or other social institutions. A college without its songs might presumably by other means develop the same degree of loyalty and of love. But in such an attempt it would be giving up one of the most direct and effective means of securing this attitude of mind. Harvard without "Fair Harvard," or Princeton without "Old Nassau," or Yale without "Bright College Years," might remain the same in campus and teachers and equipment, but it is doubtful if they would still live to an equal degree in the hearts of their alumni.

The two illustrations of emotional attitudes, the development of which we have sketched, have been given not because they are necessarily the most important but because these are typical of many others. The first is personal in its character and save for the instinctive sexual element is representative of others formed toward individuals. Under this personal category would be included love for pets, for children, for friends, and, in more abstract form, even Christian or humanitarian good will for mankind. Under the other category would be included the emotional attitude for home, for country, for school, and church, for clubs and business organizations, fraternal orders and the like. What, for example, is the process of Americanization but the formation of an attti-

tude of love favorable to the country adopted as one's own?

What then are the essential factors in the development of an habitual attitude of good will or ill will toward a particular object or institution? Certain facts stand out from our whole discussion with sufficient clearness to justify the formulation of one or two conclusions. If our position concerning the function of the affective consciousness has been well taken, then pleasantness and unpleasantness in some form are here principles of selection and play an important rôle in the formation of these emotional attitudes. Stated in a rather crude way it might be supposed that the firmly established emotional attitude is a kind of summation of affective experiences with this or that particular person or object. The solution, however, is not so simple as this, a problem of addition and subtraction merely. Quality as well as quantity must also be considered.

It must not be forgotten, therefore, that man is not a simple sensory being with some sort of registering apparatus for affective reactions. Simple sensory pain and pleasure are not a safe or a sufficient basis for this evaluation and fixation. Such has not been nature's method, and such it cannot be made. With the lower animals it may possibly be as simple as this. To feed a dog is the surest and most direct way to his affections. But man has other interests than his stomach and even his bodily welfare. Some of these we have outlined in the chapters above. It remains from the practical, economic and biological points of view, an anomalous or even inexplicable fact that man so often sacrifices his economic interests for some intangible ideal or purpose. Above these basic needs for sustenance and life lies the realm of man's intellectual interest which also is possessed of an affective component, commensurate not with its pragmatic significance but with its logical. But in the lower as well as the higher,

in the economic realm as well as the realm of ideals, there is an affective component that cannot be neglected or denied.

To establish a permanent emotional attitude, either favorable or unfavorable, toward any given object or ideal, therefore, it is essential that the individual experience some affective reactions of pleasure or displeasure in his intercourse with the object or ideal in question. The affective component, to be really effective in this direction, must be appropriate to the given object or ideal. The only way for a teacher, for example, to develop in his students a real love for his subject is to lead them to see its beauties, its significance. To be merely entertaining himself or to make his work easy is the surest way to fail. Such associations as are thus made will relate to the teacher himself rather than to his subject. There is, in other words, a severe and exacting logic in the affective consciousness no less than in the intellectual. With such intelligence as man possesses at his best these emotional values are not often confused. There is one value for physical well-being, as there is for economic independence: but there is still another for man's higher intellectual and creative activity. The first, Stephenson, for example, never had, but the last he possessed, and it was both to him and to the world a choicer gift than the former alone would have been.

But it is time that we give an answer to our question: What is the process by which these affective experiences of daily life become so organized in the individual as to create a permanent disposition either favorable or unfavorable toward the particular object or institute involved? The answer that can be suggested is as yet all too meager, but such as it is, it constitutes about all that can be offered in the present state of information on the subject.

In the first place it should be remembered that emo-

tional experiences are as states of consciousness, remarkably impressive and arresting. When an emotion is excited it monopolizes attention for the time being, and this in all mental reaction is one of the determining factors in retention and recall. Experiences lacking interest or other affective components are the ones that are soon forgotten; those possessing this emotional quality remain subject both to involuntary and to voluntary recall. The affective factor may be regarded, therefore, as evidence of a deeper process of mental assimilation. When a series of emotional reactions of a similar tone have been experienced in connection with some given object or institution or idea, it is to be expected that there will result not only from time to time this conscious recall, but that some process of incorporating such experiences in basic modes of reacting toward that object will also occur. This is but a rather complex form of learning, an adjustment where the affective factor plays its normal part of preferential selection.

Emotional attitudes are formed, therefore, around those objects and institutions with which the individual experiences repeatedly some pronounced affective reaction. The affective factor gives them a potency that focalizes attention, stimulates the imagination, makes them the object of reflection, and enlists the active energies of mind and body for carrying out the impulsion that the affective factor creates. The principle of summated stimuli is here involved, although it alone is not sufficient to explain the facts.

The other principle involved in the formation of an emotional attitude, whether favorable or unfavorable, is the principle of organization or integration. A sentiment of love or of hate is not only an increased susceptibility to some one or to several forms of stimuli, such as can be explained by the law of exercise. It is all of this, but it is something more. The objects of such affection are also

foci of intellectual reactions as well as for emotional ones. Here again the energies of the whole organism are enlisted for service, favorable or unfavorable, as the case may be. Parental love manifests itself not only in quick sympathy, active effort in times of stress, but in planning for its object's future good as well. Love quickens every reaction that will promote the welfare of its object. This means essentially that the organism functions as a unit, not after the pattern of the simple reflex. There is toward the object of this sentiment a mental set, a fixity of purpose that expresses itself not only in habitual tendencies, but also in an attitude of mind that is ready to incorporate new ideas, new reactions in promoting the interests of the person or object involved. In all of this, in the eye keen to detect immediate weal or woe for the loved one, in a mind that anticipates for its welfare as truly as for one's own, in the selection of the best possible means leading to this end, in willingness to sacrifice something, sometimes everything, in the monotonous daily tasks devoted to this end, there is a new focus for one's interest and even for one's life itself. Such a love is in truth a reorganization of one's mental life.

The conditions under which a sentiment is found, therefore, are simple, while the explanation of the reasons is complex. The one essential condition is that pleasures must be experienced repeatedly in connection with the object upon which the sentiment is fixed, if the sentiment is to be a favorable one. But certainly it is true that pleasures passively received are not so effective in this direction as pleasures that result from participation in strenuous activity connected therewith. While the advice is capable of a wrong interpretation and mistaken application, there is truth in the maxim sometimes heard, that the best way to get a person to care for you is to have them do something for you, not to shower them with attention and favor. In the formation of a favorable atti-

tude toward a person or an institution it is more effective to give than to receive. This fact indicates that the problem is not to be solved by a mere summation of affective experiences, but that the organization is one of far greater complexity than this simple formula would suggest. The mother gives constantly and generously but receives only a limited return, and yet her love toward her child stands as the world's best example of this sentiment of good will.

The factor that this mere summation of affective experience overlooks is the active employ of all of one's powers for the attainment of some good which the mother so often exemplifies. Earned pleasures are more potent than pleasures passively received. Pleasures that result directly from one's own efforts, be they but simple ones, leave an impress upon the individual that easy victories and satisfaction do not. There is truth in the maxim that "He who gives most loves best," as well as in the statement that "He who loves best gives most."

That we are here in the establishment of these emotional attitudes on the direct way to character formation is a fact that a short look ahead abundantly justifies. If character, as Dewey and Tufts in their *Ethics* defines it, "is the body of active tendencies and interests in the individual which make him open, ready, warm to certain aims, and callous, cold, blind to others, and which accordingly habitually tend to make him acutely aware of and favorable to certain consequences, and ignorant and hostile to other consequences," the formation of these favorable or unfavorable attitudes can hardly be anything else than the actual process by which a given character is formed. It is the process by which the raw material of native and primitive interests is converted into interests and tendencies that are more comprehensive in their scope and which minister to needs that are vital for both individual and social welfare. Furthermore, if what has been said be true, character is largely a matter of training, a by-

product, as it were, of living and of actual experience with concrete situations. Training, not teaching, is here the keyword, and living, not thinking, the source of those interests and values that we utilize in our daily intercourse with objects and companions.

And yet if affective reactions are made, as we have contended they are, to words, ideas, thoughts, even teaching and thinking are not wholly futile. Representative experiences and imagery which are so largely under control, as well as direct perceptual ones, are productive of affective reactions, and these are building stones that are always found to cap the finest structures of human creation.

REFERENCES

Shand. *The Foundations of Character,* Chapters III, IV.
McDougall. *Social Psychology,* Chapter V.
——— *Outline of Psychology,* Chapter XIII.
Allport. *Social Psychology,* Chapter XIII.
Robinson and Robinson. *Readings in General Psychology,* Chapter XIX.

PROBLEMS FOR FURTHER STUDY

1. What causal factors can be identified in the formation of a friendly attitude of a dog toward its master?
2. How is the relative permanence of a "sentiment" compared with the ephemeral character of an emotion to be explained?
3. What were the principal factors that led to Mary Antin's love for America?
4. To what degree, and in what specific ways, does hazing Freshmen affect their loyalty to the college?
5. In what respects is a favorable sentiment for some ideal identical with and different from a sentiment for an individual?
6. Outline some suggestions based on the chapter for promoting patriotism.

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