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Title Origins of the Sense of Beauty

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THE ORIGIN OF THE SENSE OF BEAUTY

SOME SUGGESTIONS UPON THE SOURCE AND DEVELOPMENT OF THE ÆSTHETIC FEELINGS

BY

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PREFACE

A BOOK of these dimensions, with a title that seems to suggest many and heavy volumes, needs, if not an apology, at least an explanation. It may, therefore, be stated at once that no attempt is made to investigate the highly complicated question as to what constitutes beauty in the various forms of art, or to formulate any kind of laws which have to be satisfied in order that an object may rightly be described as beautiful.

The chief object of the book is to maintain that our artistic likes and dislikes, however difficult to explain, must be based upon instinctive preferences originally necessary for survival, and, as in the case of the other instincts, in some faculty that can be traced in a rudimentary form among the lower animals.

That is to say, that taste—the feeling by which we discriminate the beautiful from the ugly—can no longer be considered an ultimate inexplicable faculty, sufficiently explained by the statement that we are born with likes and dislikes, beyond which fact inquiry is idle.

However little conviction the suggestions put forward here may carry, the object of writing the book will have been attained, if it helps to the

recognition of the fact that some reasons ought to be found to account for the æsthetic feeling as an actual and direct factor in the struggle for existence.

The book begins with an introductory chapter discussing generally the nature of the beautiful, and stating the problem. This is followed by an account of simple sensations, feelings, and emotions and their origin; after this an examination of instincts and their development, with special reference to those that might be held to be the origin of the appreciation of beauty. Finally, a consideration of the art impulse and the higher intellectual faculties concerned in artistic feeling, imagination, and inspiration.

An apology must be made for the introduction of a certain amount of elementary psychology; but as the whole argument depends upon the gradual development of the higher intellectual pleasures —from the rudimentary organic tendencies—it is necessary that there should be in the mind of the reader a certain freshness of acquaintance with the method in which feelings and ideas arise, in order to discuss the psychological aspects of art appreciation. Should the book fall into the hands of those already conversant with the facts set out, we hope they will pass, not too impatiently, over such details.

FELIX CLAY.

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THE ORIGIN OF THE SENSE OF BEAUTY

CHAPTER I

INTRODUCTORY AND GENERAL

"Beauty, like wit, cannot be defined, but is discerned only by a taste or sensation."—HUME, *Treatise of Human Nature.*

A DESCRIPTIVE definition of beauty that had any approach to completeness, would not only give us the conditions which an object would have to satisfy in order to be beautiful, but would tell us how, why, and when beauty came to take the place it occupies; reveal the secret of the relationship between such qualities in the object and the excitement of the æsthetic sensibilities, and show the reason of the development of this sense for the beautiful in the struggle for existence. Definitions of beauty are as a rule confined to the first of the above requirements, taking for granted the fact that we are pleased by objects that satisfy the necessary conditions.

Beauty, which we propose to investigate, is that effect of appearance in the aspect of an object

that stimulates an immediate emotional response accompanied by a feeling of pleasure, which pleasure is considered due to some quality in the particular object; the emotional thrill with which a beautiful setting drives home some simple truth or idea, which stated baldly would pass unnoticed; that indescribable physical sensation which turns the water of an intellectual cognition into the fiery wine of feeling. We may fully recognise the great merit, the skill and genius, shown in a work or performance, but if it fails to arouse and stimulate the feelings, it is, however inspiring for others, a failure for us. Emotional consciousness, that is to say, pleasure and pain, whether physical or mental, is the essence not only of beauty but of life. We might imagine a highly complex, and even civilised, community, in which the persons were but animated automata, having sensations but no emotions or feelings, no sense of pleasure, or the reverse. Natural selection would have developed all the necessary actions and reactions; danger would be avoided, but there would be no feeling of fear; it would be avoided as it were by unconscious impulse—so would food be obtained and eaten, mechanically. Such a society might develop a very high degree of organisation, and yet there would be no deliberately sought for end, for nothing would be desired. Something of the kind, indeed, we see in an ant's nest, a perfectly organised socialist community, but only made workable by the complete absence of individual desires, of personal likes and dislikes, with nothing

apparently but an irresistible unconscious impulse to do what is necessary.

We, looking at this world of mechanical human beings, might, and indeed probably would, imagine objects and desires for them, and credit them with pleasure in success; but the shadow of desire only would be there, the reality absent. They would be a race of pure intellectuals, in whom the changes and processes of nature would be mirrored without any feeling. Events would be noted, the relations observed, the appropriate actions undertaken; but all would be done without desire, pleasure, or regret. Nothing would be repulsive, nothing pleasurable. In such a world all value, all worth would be absent. For the existence of good, not merely consciousness but emotional consciousness is required. We may be quite sure that there cannot be value apart from appreciation, and no good unless there is preference for that good over some other less good.[1]

The appreciation of beauty is a perception of an immediate good or satisfaction—that is to say, æsthetic judgments are judgments of value, as contrasted with intellectual judgments, which are judgments of fact; and if the latter have any value, it is only in so far as they may in some way be brought into connection with our pleasures and pains. A feeling of pleasure of whatever kind expresses the value that an event, an object, or an idea has for us, while anything that has or can be the means of such a satisfaction, has so far value.

[1] See "The Origin of the Sense of Beauty," G. Santeyana, p. 16.

Æsthetic pleasure is intrinsic, based upon the immediate experience, and is not properly concerned with any conscious idea of eventual utility. That is to say, that no matter how large a part may be played by ideas or association in arousing and intensifying the emotion, beauty in the first place is a simple direct appeal to feeling—to instinctive taste.

Æsthetic theory, influenced perhaps by the popular feeling of the unworthiness and inferiority of things purely emotional, has, in revolt against the idea of the complete subjectivity of the phenomena with which it deals, woven a subtle metaphysic of beauty, as something possessed of semi-transcendental reality, of which glimpses can at times be caught by man; and to enhance its dignity has conceived of an objective external beauty not relative to us, as also of an external right and wrong; of which our moral and æsthetic feelings are the discoverers. We are still hardly ready to admit that to these disdained feelings the whole world of perception owes its value. Things are interesting only because *we* care about them, valuable because *we* want them. If our intelligence did not work to provide satisfaction for our feelings, there would be an end to thought—high or low.

"A judgment is not trivial, because it rests on human feelings; on the contrary, triviality consists in abstraction from human interests; only those judgments and opinions are truly insignificant which wander beyond the reach of verification, and have no function in the ordering and enriching of life."[1]

[1] "The Sense of Beauty," G. Santeyana, p. 4.

The response to beauty in any form lies deep in the non-rational part of our nature—that is to say, it is one of the emotions, drawing its strength from old, deep-seated cravings and desires, born, developed, and firmly fixed by the long struggle for survival, some stronger, some weaker, some still necessary, some no longer needed, but surviving like rudimentary organs, only manifest in indefinable desires and vague pleasures or discontents. These feelings—irrational, capricious, at times uncontrollable—form the stream of tendency in character, stimulating all the activities, and helping to form those curious motives so impossible to analyse. The various tendencies and instinctive cravings sometimes neutralise each other, sometimes by joining increase that strength; ramifying into the endless complications of mental process; always a source of the value and pleasure in life. These manifold tendencies, working as it were subconsciously, form our intuitive likes and dislikes, our prejudices and our preferences, making a background unnoted as a rule by conscious perception. When, however, something appeals vividly to the emotional side of our nature, they burst into the conscious mind, and, if very strong, may sweep away the tissue of elaborately planned action, thought out and determined upon by the intellect, and carry away the person on a tide of uncontrollable feeling to actions at which no one is more astonished than the performer himself.

It is because beauty appeals to this instinctive subconscious part of the mind that we find artistic

effects made use of whenever a state of emotional excitement is required, martial songs and music raise the courage of the soldier; songs and dances are well recognised incitements to love, which calls on every art to stir the feelings of its object; beautiful architecture, stained glass and pictures, combine with music to produce emotional excitement—to inhibit the calculating reason in favour of impulsive action.

We spoke above of moral and æsthetic judgment, but we shall avoid much misunderstanding if the distinction is kept clear. The relation between the "beautiful" and the "good" is no doubt close, so much so indeed, that it has at times been considered possible to use them as convertible terms, but there is an important difference. In the perception of beauty—*i.e.* of æsthetic value—our judgment is formed by the immediate sense experience, and not by a conscious appreciation of some subsequent utility, while judgments of moral worth are based upon consciousness of the benefits that should ensue.

As Spinoza expresses it, we do not desire a thing because it is good; it is only good because we desire it. The value, or the good, of beauty is due to the reaction of innate tendency, so that in considering wherein lies the primitive, basic, value of beauty, we must eliminate intellectual judgments of facts, or relations; however great the part they may play in arousing all the other, and often stronger, emotions that so quickly supervene, and confine our attention to

the first feeling of pure delight in the sensuous effect.

The age of an object, its historical association, and other suggestive attributes are not true æsthetic qualities. We see, for example, this substitution of fact for value, when correctness of drawing, and truth to the thing copied, is made the sole criterion of beauty in some work of art. Truth of representation plays no doubt a very important part, and may in itself give rise to pleasure of no mean order; while want of truth or correctness, if of a degree recognisable by the spectator, may be sufficiently unpleasant to destroy all appreciation of the beauty that the object might otherwise have. In some of the early painters the drawing is naive to grotesqueness, yet there is in some of their works an effect of beauty—that is, to those to whom it appeals sufficiently strong to overcome the effect of want of technical skill. Comparative truth and correctness of representation is only one of the conditions favourable to the existence of beauty; for a perfect, scientifically accurate representation of anything is not thereby necessarily beautiful; nor does beauty consist in imitation alone, although it has at times been considered to represent art. Leonardo da Vinci held up the mirror as the portrait painter's master. Aristotle's conception of art was a mimetic representation of the world in the shape that it takes for normal action,[1] stating shortly in the *Physica*, II, 2, that "Art is the imitation of nature." We find this idea continually repeated;

[1] "History of Æsthetic," B. Bosanquet, p. 28.

from Seneca,[1] and Longinus,[2] up to the present day, the artist is always bidden to go to nature, to copy nature, to reproduce nature, to take nature as his guide, and so on. This view of the close dependence of art and beauty upon nature is so universal, and appeals to our feeling as so obviously right, that it seems gratuitous trouble to ask why this should be so. Yet why should natural forms and shapes have an instant appeal to the æsthetic sense? Why should we look to nature for the satisfaction of our æsthetic desires any more than for our moral, ethical, or religious ideals? The operations of nature in their naked simplicity do not, at all events as we see them, agree with our moral standards, and so we form our own ideals; but æsthetically we regard nature as the ideal, and we find that the more nearly the spirit of nature can be caught, the deeper the appeal to our æsthetic feeling and the more simply beautiful the result.

As long as the appreciation of beauty is regarded as an intellectual process, such as the recognition of unity in variety, the ideal within the real, or any other form which attributes the effect to expression, it would appear that there should be no æsthetic appeal until the natural form had been altered so as to convey the idea, and that we should require the forms and spirit of nature to be transformed before they could be beautiful, as much as they have to be modified and idealised to suit the moral

[1] "Omnis ars imitatio est naturae." *Epistola*, lxv.

[2] "Art is consummate when it seems to be nature." *De Sublimitate*, xxii. 2.

ideal. But it is obvious that however much greater the appeal that is made by the artist's rendering, and the way in which he can increase the total pleasure, by the meaning he puts into it, it is all the same true that "nature unadorned"—simple, untouched natural arrangement, beautiful landscape, skies, flowers, trees, the beauty of the sun and moon, the delight of the early dawn, and the mysterious charm of night and the stars, every kind of purely natural effect—can stir deeply the æsthetic feeling. We have a strong conviction that after all nature cannot be improved upon, and that the way to improve our art is to go continually back to the fountain-head,—nature. Thus we demand from the artist whether he wishes to convey some message, or simply to impart his feeling to make the form it takes beautiful, by selecting for us those natural forms that have the strongest appeal to our æsthetic emotion. It is the very fact of this instinctive response to nature, to the forms and spirit of the environment, that suggests the likelihood of finding the feeling for beauty based in the early and vitally useful instincts.

Pleasure is of course the essence of the perception of beauty; and all pleasures are perceptions of values, but all pleasures are not perceptions of beauty. Æsthetic, like other pleasure, has its physical seat—the mechanism of the eye and ear is necessary, as well as the processes, conscious and unconscious, of the brain. Pleasures of sense, except those of sight and hearing, are referred to the particular part of the body stimulated, but in

the case of the eye and the ear, there is no prominence given to any bodily organ. We are indeed hardly aware that a sense organ has been stimulated at all, as we listen to music, or hear or read the words of a book, or look at a picture—it is the message, the idea conveyed, upon which the attention is fixed; while in the case of the lower sensations it is the organ in which the stimulation takes place that becomes prominent. It is no doubt due to this that the pleasure of the eye is so universally considered to be intellectual; it leads so directly to the brain that the fact of the sensation being present is overlooked. Small wonder that we consider the eye and ear the higher senses. The organs of our æsthetic pleasure take us directly to the object without intercepting the attention; giving a suggestion that the soul can, as it were, escape from the body, if only for the moment, and have direct dealings with the beautiful. This illusion is stimulating, and seems to lead to the higher ideals —away from the grossness and selfishness of the flesh—though the unselfishness is more apparent than real.

It is often said that in æsthetic pleasure we are enjoying a good that we do not wish to possess, and that our pleasure is disinterested; while in other pleasures we are selfishly gratifying our own senses and passions. The distinction, however, is one partly of coincidence and partly of degree. As it happens, the enjoyment of a beautiful picture, or building, does not prevent its giving a similar pleasure to any number of others; but if it could

be only enjoyed once or twice, it is certain that æsthetic pleasure would be as selfishly pursued as any other. We do not formulate the desire to purchase any picture that causes us great enjoyment, but the desire to have it is closely related to our appreciation; and if we really like it, and had the money to buy it and the space in which to hang it, we should certainly get it in order that we might be always having the delight of seeing it. In one sense it is true that æsthetic enjoyment is disinterested, in that in seeking æsthetic pleasure we have, or need have, no further pleasure in mind —that it is not sought with ulterior motives and calculations; the object with the pleasurable emotion that is aroused is sufficient. This, however, may be said with equal truth of all pleasures, of all primitive intuitive satisfactions.

The idea of the disinterested nature of our love of beauty is probably due, in part also, to the belief in its universality. When we say that a thing is beautiful we imply that it is, as it were, beautiful in itself, and should therefore be so to everybody. In the case of other pleasures we admit the personal equation—*de gustibus non est disputandum* — but in æsthetic pleasure, due no doubt to the theory of an ideal beauty, we assert that the particular thing is beautiful, and support the statement by an appeal to the established canons and laws of art; we treat the perception of beauty as a judgment, instead of a feeling. There are, of course, many points in æsthetic matters upon which there is a general concur-

rence of opinion, due to the similarity of origin, nature, training, and experience of many people, which tends naturally to bring about an identity in feeling. But this is far from saying that a particular object or scene ought to be beautiful to any particular person. Of two men, one may be roused to ecstasy by something that is imperceptible to the other; one may perceive a number of things in such a way as to form a coherent whole; the other is only aware of an unmeaning aggregate of facts, objects, or sounds—obviously we cannot say that a man ought to find pleasure in something that he cannot perceive. The origin of our saying that a man *ought* to find a particular thing beautiful lies in the fact that he would do so, if he had the nature and training that we think he ought to have had. There is, too, something disturbing to ourselves in not finding our opinion supported by one who has, as far as we can judge, similar feelings and experiences to our own, while we find an immense comfort in finding our own choice and opinion confirmed by the support of others. We are not able to explain the basis of our taste by examining our own nature and experience, nor do we even look for it there, but eagerly grasp at some law, or theoretical touchstone that will enable us to find some indisputable support for our like or dislike. When we are sure of our opinion, and confident of our reasons to support it, we tolerate easily the different views of other people; just as is the case with religious belief—when it is weak we cannot bear even to

discuss it; a fanatic will argue any point with any one. So, people who have no strong feelings upon art questions cling to the taste of the many, and claim universal appreciation as a proof of beauty, in order that they may prove the rightness of their view by pointing to the fact that it is held by so large a number. As the nature and training of men is on broad lines similar, so it is natural to suppose that there would be an actual unity in æsthetic pleasure as there is in all others; but as a principle it is untenable—nothing has less to do with the real merit of a work than the capacity of all men to enjoy it. The greater the work of art, the wider is the appreciation likely to become; it will appeal more strongly to the most deeply planted, and therefore most widely distributed feelings.

It often happens that an art may appeal very deeply to the age or nation in which it flourishes, and yet have hardly any æsthetic appeal to other or later nations. Thus the music of the East will appear monotonous and dreary to a Western mind, just as their philosophy of the essential undesirability of a continuance of earthly life revolts the active energy of the West. In the great epochs of art, opinion is apt to be very intolerant of the efforts of other ages, owing to the very strength of the conviction that the present style is the only good one. It is one of the principal signs of a weakness in an art when it seeks to find inspiration in copying, in archæological accuracy, trying first one and then another method, able to be intellectu-

ally pleased with accurate work in any style, and carefully appreciative of the old, only because it is old. When architecture was a more strongly felt art, there was no hesitation as to the superiority of the style of the day, and though in periods of great architectural activity the designers destroyed many beautiful old buildings and marred more, yet their very want of respect was a tribute to the thoroughness of their æsthetic sincerity. They had no doubts as to what was, and what was not, beautiful.

Our much wider and more tolerant views are in many ways an advance, showing by a more catholic appreciation a wider culture and knowledge; but there is the possibility that a less learned and just power of criticism might lead to greater effectiveness. It is the enthusiast who cannot see that there is a second side to a question who gets things done.

To return a moment to the question of universality of beauty, there is little doubt that much of the feeling that other people ought to perceive the beauty with which we are impressed, is due to the belief in its objective existence as an entity, and, so to speak, capable of isolation. We cannot believe that the cover of a book which appears red to us may be green to another person, and so, as beauty is felt to be an actual part of the object, we cannot believe that it may be different or invisible to another. The notion is, of course, untenable. Beauty is a value, it cannot be conceived as having a separate independent

existence, it exists in the perception. A beauty that is not perceived has no more existence than a pleasure that is not felt. It is, of course, a convenience for language, and the process of thought, to regard certain of our sensations as belonging to the objects with which they are connected; it is a survival of the primitive tendency to make every effect of a thing upon us a part of its nature.

There are as many definitions of beauty as there are writers upon æsthetics, but nearly all will be found unsatisfactory, owing to the limited field to which they apply. We may find by consulting various authorities that beauty consists in symmetry; in order; in proportion; in harmony; in unity in variety; in the fitness of the whole to its parts; in the ideal within the real; in the correspondence of the idea with its sensuous embodiment; in the normal fulfilment of function; in the typical form of the object; in perfection; in imitation; in expression; in its power of association; in the one in the manifold; in truth; that it is a characteristic of any complex form producing apprehensible unity; that only that can be considered beautiful which is permanently pleasing in revival; the idealist will tell us that it lies in the intuitive recognition in objects of part or glimpses of an absolute ideal beauty; the materialist lays stress on the simple imitation of nature; and so on. We may consider that every one of the above expresses some side of beauty, but in each case it is only a partial description. The conclusion

suggested is that each definition is due to the temperament of the writer, who, making the aspect of beauty that particularly strikes him represent the whole, accepts it as an adequate definition, and hurries on to the more congenial task of dealing with the philosophy and history of art.

A definition of beauty must be wide enough to cover all men's tastes, however various; it must not apply only to the "fine arts," but must suggest the possibility of a wider application; for it is not only in work definitely undertaken from artistic impulse but in all products of human industry, in his choice of locality, in his dwelling, his clothes, his implements, and the objects he chooses to have round him, that man shows clearly how he is affected by appearance, by something beyond, and outside, immediate utility. Of two objects equally useful, one is preferred to the other, and if this preference reach a sufficient pitch of intensity, the preferred object is called beautiful.

In common everyday use the epithet *beautiful* is applied to anything that arouses a sufficient degree of pleasurable feeling in the observer. Oblivious of definitions and æsthetic limitations, the pathologist speaks of a "beautiful" specimen of diseased tissue; the mathematician of a "beautiful" solution of some abstract problem, and the hungry man of a "beautiful" dinner. The word *beauty*, however, standing by itself, is generally connected with the fine arts and æsthetic enjoyment, and, in spite of the wide application of the word, there is always a tendency to apply

it to characteristics that cause pleasure by their appearance. This is a natural result of the tendency to think of beauty as a quality inherent in the object, since such objectification of a sensation is particularly marked in the case of the eye, where the actual sensation is so slight as to be disregarded, so that the impressions gained are at once referred back, and considered as innate in the object. It is, of course, a psychological commonplace that whenever feelings are connected with an object there is at once a tendency to project them outwards and consider them as qualities of the object; unless, of course, it does too much violence to reason; for example we are quite ready to consider the brightness, hardness, and colour of a needle as objective qualities belonging to it, in the particular form that our sense organs show them, while its further quality of painfulness, sometimes exhibited, we accept as subjective.

As we examine the various elements of consciousness, we find that whenever it is possible for the understanding to objectify a pleasure that it perceives, as a quality of the object with which it is connected, we have beauty.[1]

It may seem as if this description of beauty must exclude music, since sound has no spatial character, and the pleasure of the ear, therefore, be difficult to consider as the quality of a thing; but a musical composition, with its comparable pitches and durations, its relation of parts, and its recognisable elements and their combinations, may be as truly

[1] G. Santeyana, "Sense of Beauty," 1905, p. 33.

said to exist as the most solid table or chair. To the critical philosopher any object is but a possibility of sensation; objectivity can accrue to any mental creation that has enough cohesion and individuality to be describable and recognisable, audible ideas are as capable of these qualities as spatial.

This book will therefore approach the question of beauty by inquiring into the origin, and of the use or advantage to the organism in the struggle for existence, of this pleasurable sense response to certain qualities in the appearance of things—that is to say, into the origin and value of taste; for primarily æsthetic appreciation is a matter of like and dislike. Beauty exists in our power of discrimination, and if all things were equally beautiful, nothing would be preferable to, or affect us more than, another. This question of the origin of taste has been much neglected, and yet it is the very core of the problem of æsthetic judgment. In a book lately published, "The Essentials of Æsthetics,"[1] taste is curtly dismissed in a few lines at the end of the chapter on beauty, as

"That within the mind enabling one to recognise an artistic effect, and to judge in some way of its quality."

An explanation of this physical subconscious response to beauty is all that is wanted, and would render unnecessary the elaborate definitions that usually refer it to some complicated form of intellectual concept.

Taste is generally treated as an ultimate inexplic-

[1] By G. L. Raymond. 1907.

able fact, and taken as a starting-point behind which all inquiry is idle. Take, for instance, this statement from Ruskin in "Modern Painters."

"Why we receive pleasure from some forms, and not from others is no more to be asked or answered, than why we like sugar and dislike wormwood. The utmost subtlety of investigation will only lead to ultimate instincts and principles of human nature, for which no further reason can be given than the simple Will of the Deity that we should be so created."

The progress of science has at least shown that the power of discrimination between suitable and unsuitable food would be quickly developed by natural selection; so that we can put the explanation as to why we like the wholesome sugar and dislike the poisonous wormwood a good many stages back. An analogous origin in utility ought to be found for the other organs of sense.

As long ago as 1880, Grant Allen[1] traced clearly the connection between colour and sound and the organs of sensation, by showing that the mechanism in the eye and ear, by its sympathetic response to vibratory stimuli, falling on it with suitable intervals for recovery, gave rise to pleasurable feeling, and further, how harmonious rhythm causing enhancement of function would increase the pleasure. This established the fact that the pleasure or the reverse was directly traceable to physical structure. Why such a structure should be developed, and why it was advantageous for an animal to have a feeling

[1] "Physiological Æsthetics."

of pleasure in certain forms more than others, he did not investigate. But to-day, when we realise with ever increasing clearness that every function with the necessary structural modification is developed in response to the need for better adaptation to environment, or for some quality that will confer an advantage in the life struggle for the individual or the race, and that pleasure is the concomitant of activities useful or advantageous, and so leading to their repetition, we are bound to ask how these particular qualities, *i.e.* æsthetic feelings, could have been useful; what form their prototype could have taken, and in which of the early and primitive instincts we have the original basis of the artistic feeling?

The study of beauty must now start from the assumption that it is an object of human longing and desire, determined as to its actual essence by the qualities of human nature. Not that it is a semi-transcendental reality, but that it is one manifestation of the instinctive feelings, tendencies, and impulses of the physical being, that go to make up enjoyment and interest in life.

This "naturalistic" view will render possible the avoidance of many difficulties. Beauty considered as "pleasure objectified" embraces not only the highest forms of art, but goes back to the simplest and most primitive form in which the instinct can show itself. The sense of beauty is subjective, growing with the growth of the individual, widening and expanding with his increase of understanding and powers of perception, the standard rising

always with his progress to a higher life, until what was once only a physical pleasure becomes transformed into an ideal delight.

Is there, then, such a thing as an ideal beauty—an absolute—towards which our efforts and attempts may be considered to be tending, of which glimpses are at times vouchsafed to man? Once the relativity of beauty is accepted, this question does not exist, or, to put it pragmatically, it does not matter, it has no practical significance. Beauty, as we know and feel it, is due only to the particular arrangements and functions of our sense organs, evolved in, and developed to suit a particular environment. We cannot imagine anything of which we do not receive the suggestion in our sense experience; if our environment had been different, it is probable, or at least possible, that we should have developed different senses or a different response to things, in which case beauty would lie in a different direction — be something different from what we know.

As Mr. Balfour, in his address as President of the British Association at Cambridge in 1904, expressed it:—

"Eyes, ears, and all the mechanism of perception have been evolved in us by the slow operation of natural selection, working only through immediate utility. Our organs of sense perception, upon which are based all our intellectual powers, were not given to us for the purpose of research; nor was it to aid us in meting out the heavens or dividing the atom that our powers of calculation and analysis were evolved from the rudimentary instincts of the animal."

Exactly the same line of argument applies to our faculty of appreciating and creating the beautiful; it is a higher process derived from originally useful and necessary functions. We have no right and no need to deny an absolute beauty, but all that we know shows that beauty is relative to us, existing in our perception of it, not that it is something having an objective existence that we may, or may not, be able to see.

We can see an instructive and illustrative analogy in the sense of the ludicrous. I may see a man dressed in a way that is to me irresistibly funny and moves me to laughter; to himself and his countrymen his appearance is normal and satisfactory, and he may think me equally absurd to look at. In neither case can we consider the ludicrousness to be in the object, and though we naturally enough describe the thing or person as funny, we are quite ready to admit that a thing is only ludicrous to the person who sees it as ludicrous. So, exactly, has an object beauty—it is beautiful to those in whom it arouses the responsive thrill, just as a thing is funny to those who feel amused or inclined to laugh at seeing it; in both cases the effect is purely relative.

An object may be beautiful to one, ugly to another; probably anything might be beautiful if the right perceiver were there. Are we then at liberty to say that all things are equally beautiful, or would be, if we had enough knowledge, because any one thing may in appropriate circumstances be attractive? Obviously not; it is, as we have

already pointed out, only by the faculties that enable us to discriminate, that beauty exists at all. We can sweep away with a feeling of relief, only to be appreciated by those who have gone through the discouraging experience of trying to read works on æsthetics, all the cumbrous and complicated definitions of beauty. A thing is beautiful to me because I like it, and it moves me emotionally in a particular way. I do not like it because it is "beautiful," because it conforms to some abstract laws of composition to be discovered by research. Laws of composition are after all only the sum of what is found successful, and theory lags but slowly after practice. We may take a parallel from another sense, one which has not been able to rise and serve the higher intellectual functions. I like a certain food, and call it nice. I do not know that it contains suitable body-building constituents; I merely like it, and, like Oliver Twist, ask for more. That thing is beautiful because it has, or suggests, qualities that, in some way, or at some time, are, or have been, suitable or useful. I am quite ignorant of the fact. I merely like it. In both cases, of course, knowledge of its useful character may affect the total feeling; in both cases we may make mistakes, and the more artificial the conditions, the more we trust to intellect and less to simple feeling.

A further question arises here. Are we to consider art as nothing more than the outcome of man's love of and desire for the beautiful, with no further function than to satisfy that desire, and that consequently art is not art when concerned

with any utilitarian end or purpose? No small part of the difficulty in dealing with the problem of the origins of art lies in an assumption that it is essentially, and necessarily, something apart from the practical needs of life. Because at the present time much of the highest art has apparently no aim beyond the gratification of the æsthetic sensibility and the more idealised instincts, therefore art, we are to believe, has not, and never could have had or served, any useful function.

The view that the æsthetic emotion must necessarily be traced to some form of activity not directly useful in the struggle for existence has led those writers who are convinced of the intimate connection of emotions and feelings with tendencies of an instinctive origin, and therefore of value in determining survival, into great difficulties, when they attempt to suggest a possible origin. Are we justified in separating and grouping certain of our feelings and emotions, labelling them æsthetic, and then, upon the ground that art and the pursuit of beauty are purposeless activities, put them in a class by themselves and look for a different origin? M. Ribot, for example, in his admirable and suggestive study of *The Psychology of the Emotions*, after showing most clearly and convincingly the origin and rise of the feelings and emotions from primitive instincts, thus opens his chapter upon the æsthetic emotions:—

"While all the emotions hitherto enumerated have their origin and their *raison d'etre* in the preservation of the

individual as an individual or as a social being, the æsthetic feeling as we know, differs from the rest by the fact that the activity which produces it, aims, not at the accomplishment of a vital or a social function, but at the mere pleasure of exercising itself."

A little further on he asks the question—

"Why was it evolved? In fact, by its nature, by its definition, it seems to have had no utility as a stimulant, since it springs from superfluous activity and is not bound to the conditions of individual existence. The persistence and development of the individual social, moral, and religious emotions explain themselves through utility. The intellectual or scientific emotion, also, was at first entirely practical, and therefore useful: knowledge is power. The case of the æsthetic emotion stands alone."

Grosse, again, in *Die Anfange der Kunst*, points out that—

"The æsthetic faculty is not engaged in for an end lying outside itself, but is its own end . . . it is opposed as the exact opposite to practical activity, which always serves an end outside itself."

The same idea is stated more or less explicitly in Kant; Schiller, who suggested the widely popular theory of its development from the play instinct; Spencer, Hennequin, Grant Allen, and many others. It is hardly too much to say that this view of art, as an activity that must be divorced from all connection with a utilitarian purpose, is the one point of agreement among the many and astonishingly divergent theories of art and beauty. It was vigorously

combated by Guyau;[1] and other writers, such as M. Hirn,[2] have demonstrated the difficulty or rather the impossibility of maintaining this idea of art. Grosse[3] himself draws attention to the "curious fact" that even the lowest races in the scale of civilisation, who have hardly learnt to supply themselves with the necessaries of life, are found consecrating much time and energy to this useless pursuit. He gets over the difficulty by allowing that there is a secondary practical value over and above the direct æsthetic stimulus and satisfaction; though it is difficult to see how the secondary result would account for the primary stimulus.

This desire to consider nothing as a true work of art that has any direct connection with utility is a very fruitful source of misunderstanding and confusion; for, taking this as a test, we proceed arbitrarily to cut off certain forms of workmanship, some branches of skill, a few particular varieties of intellectual enjoyment, and to label them the æsthetic or fine arts. By a not uncommon process of reasoning, we have come to believe there is a real difference because they have different names. Psychologically there is no difference between acts of creative imagination that result in one case in a work of art, in another in mechanical invention. If we say that the former is a thing apart, and must be shown to have developed from some such useless activity as the play impulse, or superfluous energy and leisure, while the other is skill and industry applied to

[1] "Étude de l'Art contemporain." [2] "The Origins of Art."
[3] "Die Anfange der Kunst."

meeting human needs, and therefore the direct outcome of qualities useful in the struggle for existence —even though the particular invention may be of no actual service—we are simply creating a difficulty which need not exist. A workman may make some utensil or instrument concerned only, as far as he knows, with its use and suitability to its purpose; a subsequent generation will preserve it, not for its use, but for its attractive and pleasing beauty. In architecture, again, who is to decide where a nice adaptation of means to end ceases and art proper begins? Many a feature designed by the builder purely for constructional necessity has become an object of simple beauty to the spectator who knows nothing of the difficulty the builder had to meet: would his admiration be decreased if he were aware of it? How are we to know whether an artist in any given work of art was inspired by an object or not, whether he aimed at the creation of simple beauty, or whether he had some ethical or religious purpose? The conviction that the essential character of art lay in its independence of all external motive, of course, made it difficult to suggest an original cause, but an obvious parallel soon suggested itself. It is impossible to find any immediate utilitarian purpose for all the intense activity, mental and physical, that is devoted to sports and games. It is a matter of common observation that games, where the end in itself is all that they have to offer, exert as strong an attraction as other pursuits which aim at obtaining most substantial advantage. Can we then consider the

art instinct is the outcome of play, considered as a purposeless activity?—that surplus energy seeking for some outlet, some means to wile away superfluous leisure, gradually evolved art productions? This theory of the origin of art from the play instinct, formulated by Schiller and elaborated by Herbert Spencer, has become widely popular. It rests, however, upon somewhat insecure foundations—first, that the early art of primitive man was a mere display wrought with no further purpose than to please the producer and occupy his time—a form of play; and secondly, that play is equally a useless activity whether in man or animals. There are strong grounds for believing that neither of these assumptions is correct. Gros (*Die spiele der Thiere*) has advanced excellent reasons for considering play a highly useful activity for animals, as helping to strengthen the muscles and co-ordinate the movements that subsequently will be necessary to secure its prey or avoid its enemies. Recent research in anthropology now points definitely to the fact that in the great majority, if not in all cases, the early efforts at pantomimic dancing, the rough drawing, the rude ornament, so far from being an aimless amusement, were done with a most serious purpose; they were mystic signs and spells to avert some dangerous influence, to bring good luck, or in many cases ideograms conveying useful information; however intrinsically valueless their authors considered them useful, to the point of necessity.

Music, that at first sight seems of all the arts to be furthest removed from any utilitarian flavour,

has, at all events among primitive and savage tribes, an intensely practical side. As a means of insuring accuracy of concerted movement, maintaining discipline, rousing warlike ardour, music has an important part to play. As Dr. Wallaschek points out in his "Primitive Music"—

"It is this fact of the absolute utility of music in the daily life of people in primitive times that made it develop so late into an independent art."

And again—

"With primitive man music, and painting and sculpture probably as well, are not purely æsthetic occupations in the modern sense; they are most intimately bound up with practical life preserving and life continuing activities, and received only gradually their present more abstract forms."

Granting, then, that these early efforts were useful, how is it that they at once begin to take on more or less attractive forms, so that in many cases they can appeal successfully to our æsthetic sense of to-day? How did they come to have an artistic value?

Primitive man, as soon as he reached the point of conceiving gods and demons, naturally and inevitably imagined them as men of like passions as himself, and thus offered them the things that he found pleasing himself, never thinking that the gods would find a sacrifice of savoury meats less attractive than he himself would. The moment their rudimentary skill was devoted to making use of a chance-found colour, a sound or movement

such as dancing—with or without any conscious idea of expression—it at once took some rhythmical or harmonious combination, determined by the emotional response that it called forth—that is to say, a savage would by chance find that, say two particular bright colours in close proximity gave him more pleasure than some other arrangement; he would unconsciously copy that and develop it; movements or sounds falling into rhythm became suddenly moving and effective. This would, of course, be simple unconscious choice, explicable only upon the assumption that there was some innate tendency or instinctive feeling that gave rise to a feeling of more pleasure in some forms that he happened to make than in others, which would naturally tend to their repetition, and so to the development of greater skill; but the faculty of choice, and therefore of appreciation must have been in existence previously. The savage, feeling such things pleasing to himself, would offer them to his gods, and the desire of pleasing these usually malevolent demons would be an incentive to invent new devices.

The progress which we can trace all through the instinctive pleasures and emotions is pure utility, or necessity, in the first place, a gradual decrease of the utilitarian aspect until the end becomes lost sight of in the means; when the pleasure which the exercise affords is alone a sufficient inducement to continue it, the mind inventing new and more attractive forms, and carrying the process into the intellectual region. The sportsman cares no longer

for the quarry which he does not need, but the pleasure of the hunt remains, which accounts indeed for the attraction of many games; so the old instincts of rivalry and emulation remain and give a savour and a relish to many of our pursuits, mental as well as physical; and there is no denying the strong emotional effect of these secondary or derived forms of an instinct. It would indeed be a reversal of the history of evolution to find a particular function growing less and less useful as we traced it back until it ended in the animal in some perfectly useless activity. There is no need to deny the part that leisure and surplus energy would have in providing opportunity and spur to artistic activity, but we must clearly look elsewhere for its origin. No doubt there is a superficial resemblance between some of the forms of art and play; one important difference that we must note is that every manifestation of art produces something—the essence of it involves the alteration of matter in the creation of new forms. There is something left behind, something is made which survives.

It seems in some way to enhance the ideal and imaginative function of art to give it a purely disinterested aspect, and it is no doubt to some extent a protest against the common usage of the word to denote a quality that would more properly be described as skill, but probably it is much more due to the attempt to base a theory of art upon *a priori* principles deducted from general philosophical considerations. No work upon metaphysics

is complete that does not include æsthetics, consequently art is brought in, its field strictly limited, divorced, as far as possible from its physical and subjective aspect, and made to fit the rest of the scheme or system. At the period in which art philosophy was most actively engaged in forming and elaborating its theories, art practice, except painting, was not in a flourishing condition; music had not been able to force itself upon the notice of philosophers, the remarkable development that was to come had not yet given a sign. The formative arts were at a low ebb, the crafts were uninspired, particularly in Germany, where æsthetic inquiry was most active. The great periods of art were remote, so that they appeared simple, and the most salient points only emerged; everything was favourable to wide generalisation. Art practically meant painting and sculpture, and the monotonous repetition and careful adherence to certain arbitrary laws and canons of taste, by the artists, paved the way to theories which seemed to fit the few facts with which they had to deal; these were eagerly seized upon, and quickly elaborated by brilliant thinkers, who never considered it necessary to go back to facts. Psychology was still in the stage of metaphysics, resting upon pure deduction; experimental and physiological aids were unknown; evolution, with its suggestion of development by degrees of the faculties, was still in the future; so that there was nothing to check theoretical speculation.[1]

[1] "A History of Æsthetic," B. Bosanquet, 1892. "The Origins of Art," Y. Hirn, 1900.

With the growth and spread of the arts and crafts in all directions, it became more and more difficult to reconcile theory and practice, and the study of æsthetics became less popular. In place of general speculations on art and beauty appeared detailed studies in the technicalities of particular arts or historical research, the æsthetic emotion being relegated to a subdivision in works upon psychology.

There is no attempt in this book to go into the various theories upon art and the conditions of the beautiful, beyond the point that seemed necessary to make clear the question under consideration. There are many admirable works upon the different aspects and phases of art—its technicalities, its history; its social, moral, and ethical value. These matters are not affected by the question of the ultimate origin of taste, or the psychological process of, and the reason for, the enjoyment and creation of works of art. The main object in view is to lay stress upon the fact that there *is* this further question behind, and that our appreciation of the beautiful can be, and must be, traced to faculties that were at some time or other directly useful in the struggle for existence.

The two following chapters are devoted to the consideration of sensations and feelings, treated from the psychological point of view; in order to get at the elements that go to make up the æsthetic emotion, with a view to tracing, as far as possible, their origin in instinctive activities, and comparing them with similar tendencies in the animal king-

dom, in order to make some suggestions between some of the earliest forms of instinct and the appreciation of the beautiful. The remainder of the book attempts to deal with the more complicated aspect of the appreciation of beauty when the association of ideas and the intellectual factors come into play, in order to show how the highest forms of art and the love of the beautiful grow continuously from the original simple sensuous response.

CHAPTER II

THE PSYCHOLOGY OF SENSATIONS AND FEELING

IN a greater or less degree every one is a psychologist—we are always observing, calculating, and acting upon our estimate of the mental processes of other people; the material for such analysis being drawn principally from our own minds by introspection. We continually watch our own bodies and other bodies and objects; we notice that we can remember previous impressions, and reflect upon their relationship. We find that these perceptions and ideas give rise to feelings of pleasure or pain, desire or aversion, impulses to act in some particular way with regard to these objects; we further find that we can control or give free play to these impulses. We see other people acting much as we should under similar circumstances; they describe their feelings, which correspond with ours; we therefore assume without question that they enjoy similar experiences, perceive things in much the same way, have similar ideas, and are, generally speaking, actuated by similar tendencies and impulses to our own. We may further note that the actions of the higher animals show, by their actions and behaviour, that they too perceive similar things and are actuated by impulses, suffer-

ing pain and enjoying pleasure much as we do. Certain people, by making such things a matter of careful observation, analysing more fully their own experiences, and by attempts to systematise the various phenomena, laid the foundation of the science of psychology. Increasing knowledge of the nervous system, however, made a reconsideration of the method of research into the function of the brain and the process of thought necessary. As it became clear that normal organic working of the brain was an indispensable condition to normal thinking; that an insufficient supply of blood to the brain was capable of upsetting or profoundly modifying the whole process; that each part of the body was in close connection with the brain; that one set of nerves ran to the brain conveying the sense impression, while another different set carried the impulse to the muscles, &c.; it became increasingly clear that introspection, however acute, could not hope to arrive at anything like a complete understanding of behaviour, and that a knowledge of physiology was a most necessary part of the psychologist's equipment.

The discovery of the phenomena of reflex action, by which appropriate and apparently intelligent responses were made to stimuli even after the destruction of the brain, marked a further great advance. If a drop of acetic acid be placed on the trunk of a frog whose brain has been destroyed, it will be found that the foot nearest the place will be raised, and a movement made, to sweep off

the acid; and if that foot be held the other foot will, after a short interval, reach over and make a similar attempt. Although such movements may seem to be directed by some form of mental process, it is clear, since the extirpation of the seat of the reasoning powers does not interfere with their due performance, that they must be, in reality, determined by processes purely physiological. This conclusion is strengthened by the way in which reflex movements of great complexity may be excited in our bodies while the mind, under the influence of sleep or anæsthetic drugs, is in a state of complete unconsciousness.

This, however, is far from saying that if the nervous system of a man or an animal could be fully described, and a complete knowledge of the chemical and physical processes in it obtained, the conduct of the individual could therefore be accounted for, and his actions predicted. Such an assumption would mean that consciousness, perception, ideas, volitions, and feelings, as such, have no influence upon conduct; that they are due merely to certain nervous processes in the brain, and do not in any way modify or react upon action. The close connection that mind process has with physiological condition is shown very obviously in everyday life, by the almost humiliating effect that the state of the digestion, the effect of a drug, of fatigue or a good night's rest, has upon our mental outlook and general attitude of mind.

There is so much difference of opinion upon the actual details of the methods by which the mental

processes are carried on, that there cannot be said to be any generally accepted theory, and the following brief resumé is only intended to give an idea of the direction in which opinion is tending.

A few nerve-fibres connecting a few very simple sense organs with a few, also very simple, muscle-fibres, make up a nervous system in its simplest form; such, for instance, as in the case of a jelly-fish or a sea-anemone. When any external change of sufficient intensity takes place, as, for example, a solid body being brought into contact with one of the sense organs, a physical or physico-chemical change is transmitted from the sense organ along the nerves to one or more of the muscles, exciting in them chemical changes; this causes the muscles to contract, and so to withdraw that part of the body from contact with the object. That is a simple reflex, and is the fundamental type of all nervous action. It seems that the nervous system of any of the higher animals, including man, consists essentially of a series of nervous impulses conducted from the sense organs to the muscles. As the nervous system becomes more complex, we find in the higher animals a great increase in the number and variety of the sense organs, some of which become specialised for the reception of particular forms of stimulus, with a corresponding increase in the number and combinations of muscles. At the same time the arrangements of the circuits that connect the muscles with the sense organs become rapidly of an extreme complexity; instead of being simple paths by which an impulse is conducted

directly from each sense organ to one muscle, the numerous lines of conduction become connected together, so that an impulse originating in one sense organ may spread through the whole nervous system, or any part of it, and be transmitted to any, or all, of the muscles.[1]

In man and the higher animals there are two systems of muscles with their sense organs. One contains the set of muscles that are under the control of the will, the contractions of which produce movements of the limbs, organs of speech, &c. These are called the voluntary muscles, or the skeletal muscles, because they are for the most part attached to the bones of the skeleton; it is through them that relations are maintained with the external world. The muscles of the other system are placed in the various organs necessary to keep the body in a state of vital efficiency, to work the lungs, the digestion, &c., and are known as the visceral system, because they are chiefly in the thorax and abdomen; or, since their contractions are not under the control of the will, as the involuntary muscles. With them goes the great system of glands and secretive organs, also under the control of the visceral nerves. The two systems, one connected with the sense organs on the surface of the body, the other with sense organs in the viscera, stimulated by pressure and chemical changes in the inside, are intimately connected. The skeletal muscles are controlled not only by impulses from the surface organs, but by others initiated in sense organs embedded in the

[1] "Physiological Psychology," Professor M'Dougall, 1905.

muscles themselves, in the surrounding tissue, the sheaths of the muscles, the tendons, joints, &c.; these when stimulated by the various contractions and movements give rise to what is known as the muscular sense.

We may trace roughly the sort of way in which this nervous system probably developed. Man and the higher vertebrates seem to have been evolved from a simple segmented creature not unlike some of the annelid worms or the long-bodied arthropods. The little fish-like creature, Amphioxus, resembles most closely in general structure this hypothetical ancestor; fish, frog, rabbit, dog, and ape roughly representing the series of increasing complexity. The ancestral vertebrate may be conceived as a worm made up of a series of segments, each of which was practically a complete organism in itself, consisting of certain groups of muscles, covered by a segment of the skin connecting the sense organs scattered over each part. Within the ring of muscles of each segment would be a section of the alimentary canal, a pulsating artery, a kidney, and other viscera. The animal would naturally progress in the direction of its oral extremity, and thus the special organs taste, smell, sight, hearing would be developed in the neighbourhood of the mouth, since it is the nature of the object towards which it is moving that is of importance. As these special sense organs develop in the leading segments, the sensory circuits would become greatly increased in those segments; and as the movements of the

animal as a whole—*i.e.* all the segments—must be made to advance towards, or retreat from, the objects that have affected these organs, the nervous connections between the leading and remaining segments become multiplied. The ganglia of the leading sections become larger and more complex, special protection is required, and special muscles must be developed to move these organs; thus the oral extremity, containing the special sense organs, the rudiments of the brain and the mouth, becomes the head. The regular segmental arrangement of the rest of the body gives way to the developing fore and hind limbs, with their corresponding muscles and nervous connections. This stage is represented by the fishes and simple amphibians. We see in the spinal cord and the basal ganglia of man the parts that represent the nervous system of the early vertebrate. These contain nerve fibres to connect them with the later developed or higher parts of the nervous system.

In the brain of a child the various instinctive reactions are, from an early stage, fixed in systems that take form independently of individual experience; there is, however, present at birth a great mass of nervous elements which only gradually become organised, modifying and combining the congenital systems in innumerable ways, which constitute the acquired dispositions to modes of action characteristic of the individual. The greater relative size of the brain of man is chiefly due to the enormously greater development of the association, in comparison with the sensory areas,

which in the higher animals go to make up the greater part of the cortex. It is this great mass of nervous elements not congenitally fixed that provides the capacity for learning, and raises the mind of man so immeasurably beyond that of the highest animals.

The above rough sketch[1] of the development of the nervous system is, of course, merely a bald outline of the sort of way in which the process of thought may be conjectured to have developed; but it will perhaps help to make clear the point of view from which the various psychological questions will be approached in the following pages, and we can proceed to the consideration of the sensations through which all the material for thought and feeling is obtained.

Sensations may be considered psychical elements, which no introspection, however careful, will enable us to analyse further. "Hot," "cold," "sweet," "bitter," "hardness," softness," are, as far as we can perceive, ultimate qualities of sensation; but we cannot be sure that they are really primary, for experimental physiology has in some instances established the fact that certain apparently simple psychological phenomena really involve an intricate and complicated physiological process. There is, therefore, always the possibility that the apparent simplicity may be the result of previous combination below the threshold of consciousness.

The sensations form the basis, or starting point,

[1] From "Physiological Psychology," Prof. M'Dougall, pp. 15–40 (1905).

of all development, since communication with the external world is carried on through the peripheral sense organs. Sensation should be distinguished from perception, although it is probable that, at all events in adult life, a sensation is never experienced as a simple state of consciousness. The senses commonly combine with, and strengthen each other—we cannot taste as well in the dark; usually taste and smell are closely connected; many foods, such as junket or jelly, owe much of their attractiveness to touch, upon the delicate skin of the palate. Experiments which isolate the sense artificially will often prove that there is a great difference between the true and apparent sense of taste.

At any moment a great variety of different stimuli are playing on the various sense organs; rays of light are entering the eyes; waves of sound of all kinds upon the ears; clothes are touching the skin; other objects are touching the hands; the movements of the muscles excite the muscular sense; the various internal organs are subject to continual stimulation in some form or other. Some of these stimuli produce simple appropriate reflexes, others merely excite slight sensations; but all blend into a mass, and if attention be fully occupied in thought, no one of them is consciously recognised. Nevertheless all these various stimulations, excited by objects to which no attention is paid, are present to the mind in a half-conscious, obscure sort of way, making a field of undiscriminated sensations, which form a rich varied background upon which the object of attention at the

moment stands clearly out. This is a point to be kept prominently in view in thinking of the total effect felt in certain forms of artistic enjoyment—a great number of small apparently unnoticed details, perhaps only to be distinguished by a vague feeling of want if omitted, may greatly help, in the aggregate, to make up the massive feeling of pleasure caused by an object or work of beauty.

At the theatre it is not unusual to play soft music during some particularly moving passage, and if the attention is very intently fixed upon the scene that is being enacted, the music may go on for some time without any conscious perception of it, although the effect may be strongly marked in the increase of emotional excitement.

The fact that the threshold of admission to consciousness by any sensation is heightened during strong attention is a matter of common observation, and under such conditions comparatively strong stimuli may pass unregarded by the attention, but they are dealt with promptly and correctly by what we may call the subconscious mind; this is always at work whether the attention be attached to any particular object or not, the difference being that with the mind unoccupied the threshold is lower, and a very slight stimulus is able to catch the attention. The subconscious mind acts, so to speak, as the private secretary of the conscious mind with regard to sensations; it looks after the unimportant details and those for which precedents have been thoroughly settled; referring to its chief if any difficulty, or any point requiring decision,

arises. The mind, having deputed various departments to its private secretary, forgets the details, and is apt by interference to complicate matters, or do them less well, from ignorance of the usual routine; it is always handing over new sensations, as soon as they recur often enough, with instructions that any particular one is to be at once referred for consideration. The hunter goes to sleep with instructions that one particular noise of the hundreds that strike his ear is a dangerous one, or that he is to be awakened if any strange noise occurs. The ordinary man has a standing order that his attention is to be drawn to any allusion to his favourite subjects or himself, or when much preoccupied gives orders that he is only to be disturbed for really important matters. The value of this saving of energy by deputing all the routine matters to an unconscious or subconscious partner, and so leaving the mind free to deal with new and important questions, is so great, that the growth and increase of this power would, of course, be greatly fostered by the struggle for existence.

As experience progresses, the sense feelings undergo certain modifications: it is within the experience of every one that there is a falling off in the pristine intensity of sensuous enjoyment; most people can recall a deliciously intense feeling for colour and sound and rhythm, which experience seems to dull. This is obviously due to the growing preponderance of the intellectual or presentative consciousness. We grow practical; we attend to sensations, as a rule, only for what they mean, as

far as they are signs of things of importance. So growing experience tends to invest our sensations more and more with objective significance, and it is the thing referred to, not the sensation itself, that becomes of most importance. Thus, practical suggestions at once intrude, and, monopolising the attention, prevent a full appreciation of the sensuous attributes of the object. The artistic training, however, tends always to strip off these additions and to preserve the keen response to beauty in pure sensuous effect, which is often so strong in children. No doubt, too, to all people these effects are of importance in forming a background, whether attended to or not—stronger or weaker according to their temperament—in making up their general feeling at any moment. But we must remember that this loss of sensuous enjoyment is perhaps more than compensated for by other factors that the growth of experience brings to bear; for all the wealth of associative memory comes to enrich the feelings with agreeable suggestions. If the sky is not so blue, or the sun so bright, as it used to be, still we have a wider capacity for enjoyment in intellectual width and more varied knowledge.

There is an interesting example of this quoted by Höffding[1] from Goethe (*Briefe ans der Schweiz*), who is speaking of the sublime impressions of a journey in the Swiss mountains :—

"A youth who journeyed with us from Basle observed that he had not the same feeling as on the first occasion,

[1] "Outlines of Psychology," p. 282 (1904).

and thought the first impression the best. I was disposed, however, to say, when we saw such a sight for the first time, the unaccustomed soul expands, and there is a painful happiness, an excess of delight, which stirs the soul and draws out blissful tears. Through this process the soul becomes greater without knowing it, and is no longer capable of that first sensation. Man thinks he has lost, but he has gained; what he loses in pleasure, he gains in inner growth."

As a rule, by an effort of attention we can isolate any particular sensation, bring it into mental focus, and by making it the prominent object proceed to analyse it, thus distinguishing many features that were previously undiscriminated. We may, after selecting something — say a wall-paper, having picked out one that we liked at first sight—proceed to consider wherein the preference lay, and find it in a pleasing combination of colours, the form of the pattern, or perhaps in a particular shade of green. We have split up the general appreciation into particular sensations which we cannot analyse further; the basis of our preference is the simple sensation. In the same way a trained ear can upon hearing a note struck upon a stringed instrument single out each of the over-tones of the fundamental in turn, and thus show to be complex that which if treated inattentively seems to be a simple sensory experience. We also find that training greatly increases this power of analysing sensations; to the eye of an artist it is an easy matter to distinguish various colours in what to an untrained eye may be a simple purple or green; the wine-

taster and tea-taster notice and judge many flavours in what to the untrained palate and nose are an indistinguishable whole. However much we may be able to analyse the component parts, we still find that the sum of the simple sensations into which we have successively analysed them forms a distinct whole that is quite different from the mere addition of the parts—*e.g.* a chord is not a mere addition of the separate notes.

All sensations come to us from definite bodily organs—hot and cold from the temperature organs in the skin, colour from the retina in the eye, bitter or sweet from the sensitive cells in the tongue, &c.; and since all ideas are based upon experience, the absence from birth of any organ makes it impossible to have ideas of the sensation belonging to that organ—those born blind can have no visual imagination, and so on. Thus all the material for intellectual process is ultimately traceable to the particular conformation of the sense organs. Any sensation once experienced can, of course, be revived as an idea, sensations being the elemental processes of ideas.

It is usual to divide the senses into higher and lower: the higher, those of sight and hearing, have a great range, a wide variety of qualities, and are of high cognitive value—*i.e.* are the chief sources of information as to the properties of things in the external world. As long as the strength of the sensation is the important point, the sensations tend to fuse completely with the general feeling of comfort, or the reverse; this is particu-

larly obvious at the extremes of pleasure and pain, even when it is a question of purely intellectual and æsthetic feelings. Forms of sound and shades of colour arouse a finer play of feeling than any stimulus which affects by its degree of strength the processes concerned directly in the preservation of life. It should be noted, too, that in the sense organs that are affected by light and sound, there are contrivances to subdue too violent excitations.

In the case of a stimulus to the eye and ear no attention, or very little, except in extreme cases, is directed to the sense organ itself; they are almost direct passages, as it were, to the brain. As we get lower in the scale of senses we find attention more and more directed to the actual seat of the sensation—*e.g.* touch, heat, and cold, and, in a slightly less degree, taste and smell. This view of higher, and lower, corresponds with the course of development, all the qualities of sensation being slowly differentiated in the course of evolution from some primitive obscure quality of sensation, probably that of touch or pressure. Many parts of the body are supplied with sensory nerves the stimulus of which hardly differs from this primitive form of sensibility. We may speak of it as common sensibility or vital feeling, and although we cannot voluntarily direct our attention to any one of them or single them out, unless there are in some spot, owing to inflammation or injury, painful sensations, they form a confused, undiscriminated background of consciousness, con-

tributing largely to our general sense of well-being or discomfort.

This fundamental mood can be described only by certain general features, which stand in close connection with the easy and free, or checked and difficult, course of the vital process. The feeling of freedom, security, and power comes in contrast with the feeling of internal constraint, anxiety, and feebleness. In the contrast between the feeling of power and the feeling of feebleness the muscular sensations play, clearly enough, an important part.

The organic sensations arise from the stimulation of sense organs in the viscera; the sensations from them, as a rule, only cross the threshold of consciousness when there is something abnormal in the working of the inner mechanism of a sufficient degree of intensity. When the visceral functions are accelerated or retarded, or otherwise disturbed, we have various sensations, pleasant and unpleasant, hunger or thirst, nausea, breathlessness, or feelings of well-being, strong vitality, and so on, which may reach a pitch of very distressing acuteness on one hand, and considerable pleasure on the other.

The nerves by which we appreciate the position and movements of the body, which enable us to say into what position any limb has been moved, give rise to what are called kinæsthetic sensations. These are seldom noticed as a separate sensation, though of very material value, and of great delicacy in muscular adjustment, and, as

we shall show subsequently, play an important part in the appreciation of form.

These sensations of touch and movement come so close to the general feelings that they often enter into them without being independently presented, and if such sensations do not exceed a certain pitch of intensity they are capable of being endowed with a certain amount of independence, so to speak, in comparison with the general sense of well-being or discomfort. There is a certain feeling of satisfaction in contact with soft and smooth surfaces, and a displeasure in those rough and hard, to which a certain degree of æsthetic character may be ascribed—that is to say, they do not immediately or directly set practical instincts and impulses to work.

The bearing of all these senses upon art appreciation may at first sight seem somewhat remote, but we have mentioned them here because it is hoped to show when considering feelings and pleasure that they do play a very important, if obscure and unperceived, part in determining many of our likes and dislikes that seem purely capricious.

The visual sensation is usually considered the highest of the special senses, and is, of course, the most important from the æsthetic point of view; since art, with the exception of music, appeals primarily to the eye, and through it to the brain. Although poetry when spoken aloud does appeal to the ear, yet the large number of visual images that are suggested imply the experience of sight; and, generally speaking, it is through the eye that

the beauties of nature and art make their widest appeal.

It is in colour that we get the pleasurable æsthetic sensation in its simplest form. Each colour has its specific sensation that is felt as different; blue differs from red, as a high note from a low, or a sweet sensation from a sour—each has its own nervous process.

Many people are conscious of a relation between colour and sound, finding that certain colours suggest certain notes. Various theories of a somewhat far-fetched nature have from time to time been founded upon this; but the affinity is probably explicable upon quite simple ground. The emotional states have very ill-defined boundaries, passing easily from one to another and arousing each other, so that there is very likely to be some similarity between the emotional state aroused by the high rate of vibration of a sharp shrill note and that of a colour in which the rate of wave-propulsion also was high; so natural an analogy would be due simply to this sympathetic connection.

Certain effects and combinations of colour are found by the majority of people to be pleasant, others again cause an unpleasant jar like that of a musical discord—they are often described as setting the teeth on edge. It is possible that more advantage might be taken of this, and that we might cultivate our sense of colour by producing, as it were, symphonies in colour by the use of varied lights; indeed this effect is made use of

sometimes in ballets, where the emotional effect of simple changes of colour is very marked. A popular feature some years ago at certain of the music halls were dances which consisted chiefly in graceful undulating movements by the dancer of long lengths of light drapery, but depending really for effect upon the brilliant changes of colour thrown by lime-light; and the effect of these luminous brilliant colours was very beautiful. We get an effect, due almost entirely to simple colour, in a sunset or a sunrise; but this is, as a rule, very quickly complicated by ideas due to association and suggestion. Fine stained-glass, with its soft richness and large masses of colour, has a considerable emotional effect, even apart from the design—as, for example, in the west window of Winchester Cathedral, where the broken glass, replaced without any regard to pattern or intentional form, produces a delightful colour effect. Generally speaking, however, the chief use of colour is to accentuate form, from which indeed it is rarely separated; and although the form will at once usurp the chief place and interest in attention, the colour will add an emotional tone which will greatly enhance and deepen the whole feeling, even though it remains more as a marginal impression than an actually noticed fact.

The visual appreciation of form offers perhaps the most difficult, if most characteristic, problem in æsthetics. When we have an object composed of elements in themselves agreeable, and the whole, by its rich colour and gorgeous material, arouses

a simple sensuous delight, the problem of our pleasure in it is comparatively easy; unless and until we try to explain the ultimate fact as to why certain colours and harmonies, as such, do arouse a pleasurable feeling. Again, if the thing is in itself not particularly pleasing, but does, by the suggestions and associations that it calls up, arouse a feeling of enjoyment, we can see in what direction to look for an explanation. There is, however, another direction in which we find a beauty that consists in relation of parts that are not themselves beautiful. A number of parts that, taken singly, arouse nothing but indifference, such as lines or rectangular shapes, may, if suitably spaced and arranged, form a whole that is beautiful. If we take two buildings, each erected of the same material, each treated with vertical and horizontal straight lines, one may be beautiful the other not. To take a simple case, Fechner stated that a rectangle, isolated in space, will appear beautiful if the ratio of its sides is so arranged that the greater is to the less as the greater to the sum of the two; if, for example, we take four lines, two eight inches and two thirteen inches long, in themselves of neither interest nor attractiveness, and unite them in the form of a rectangle, we make a form that is pleasing by the simple relation of its parts, and not due in any way to meaning or expression. As the pleasing effect of a line or a form is due in some way to the spatial relation of its parts, the method by which this relationship is perceived requires consideration.

The eye, owing to the fact that it is provided with a system of lenses, is able to receive impressions of an external object point by point. The absence of this mechanism makes such representation impossible for other organs — for instance, the nose, which can only detect an indiscriminate combination of smells. Those animals that are provided with eyes, but no lens, are only able to get a consciousness of diffused light, in a field of view without divisions or boundaries. But although the lens does make possible a distributed image, it does not explain how consciousness is presented with parts juxtaposed in space. There could well be impressions from each separate point, which could be compared one with another; just as in the case of the ear the mechanism can isolate and distinguish a number of sounds of different degrees of rapidity of vibration; the different pitches being distributed into different parts of the organ.

The explanation now generally accepted as to the means by which the relation between various points is seen as one of position is that suggested by Lotze, and is somewhat as follows:—The eyeball rotates in a closely-fitting socket; when an impression is received on any point of the retina, the eye is rotated so that the impression is brought on to a small part near the centre, where is the point of greatest sensibility; this is known as the yellow spot, or fovea. When such a movement is made, a complex of kinæsthetic sensations is excited. This we may imagine to be much on the lines of

those in the hip or shoulder joints, where these sensations enable us to appreciate with great delicacy the range and direction of any movement or the position of the limb. If we consider the delicacy of perception required to adjust very slight movements, such as that, for example, in sighting, and keeping, a rifle on the bull's-eye at a long range, where a movement of a hundredth of an inch would take the bullet off the target, or the exact strength needed for some difficult feat of balancing; it is not difficult to understand the extreme delicacy of feeling in the muscles of the eye. The object then, as the movement of the eye brings it to the centre of vision, excites sensations from a series of points upon the retina; the local signs or sensations belonging to each of these spots is associated with the kinæsthetic sensations aroused by the movement of the eye. These sensations then henceforward tend to arise together and a network of associations is formed; thus, as soon as any point upon the retina receives a stimulus, the mind feels, together with that impression, the suggestion of the line of points that lie between the point of stimulation and the centre of vision; thus the sensation of any one point upon the retina is connected with all the others in a manner which is that of points in a plane. The sense, then, of the position of any point arises from the tensions in the eye, due to the tendency to bring that point at once to the centre of vision, and the feeling of all the other points as related to the given one.[1]

[1] See "Physiological Psychology," Professor M'Dougall, 1905.

Some explanation on the lines here briefly suggested is all that psychology is as yet able to offer towards explaining our perception of spatial relations. It must be confessed that it is only partially satisfactory. It is true that we certainly get a coherent group of motor-sensations, local signs, and sensations of light and contact, combined according to the laws of association; but this would not necessarily give rise to the intuition of an image with its several parts placed one outside the other, and it outside ourselves. In view of this and other difficulties, certain writers, notably Stumpf, have regarded the apprehension of space as innate—given with the first impressions; all psychological explanation is therefore superfluous, it is to be accepted *a priori*. Investigations and experiments, however, such as have been made on young children, and upon those who have only attained their sight for the first time in later life, as well as the mere fact of error and apprehension of space, all point to the fact that it is a growth of experience.

Whether the faculty is innate, or acquired, it becomes at a very early age an unconscious process, and we seem, at all events, to see the relationship of parts and objects in space as an immediate apprehension. Thus the whole form or shape of an object can strike us at once, and be seen as beautiful or ugly.

If a circle, a straight line, an ellipse or a curve, be presented to the eye successively, it is possible to distinguish a slightly different feeling aroused by

each. A curve such as we describe by the term flowing or graceful can, we may easily imagine, be followed by a more natural and rhythmical movement of the optic muscles than a straight line or an uneven zigzag. A circle may arouse its specific feeling by the monotonous repetition of similar movements as the eye passes from the centre to various points upon the circumference; it is not generally found attractive, nor is a straight line; unless either is in a position that demands for strength, stability, or fitting action, perfect circularity; or an accurate adjustment, only to be secured by perfectly straight surfaces. In this case they are borrowing some of their attraction from the meaning that we are consciously attaching to them. A straight line is not commonly found in nature, nor is a flat circular surface often met with, so that the eye would not have had the same intimacy of association from early times with such forms.

It is, however, easy to see that though form may be indebted to convenience or suitability for its attractiveness, the actual recognition of this aspect may become so unconscious that the resulting feeling arises directly from the impression as a simple sense response, of which we may, or may not, be able by reflection to trace the cause. We have a distinct feeling of pleasure that is not immediately connected with the idea of utility in looking at a well-shaped object, such as a violin or a beautifully balanced and designed gun, or anything of the kind that can be handled. The person using any such instrument has, as he uses it, certain

kinæsthetic or muscular sensations, which would obviously be more pleasant, the more the balance and design of the object made manipulation easy as compared with its weight and size, and so added to its effectiveness. To these sensations also would be due the pleasure in the mere handling of a weapon or instrument, apart from actual use, while in real action they would be probably merged in the more attention-catching purpose for which the thing was being used; but although they might not be consciously noted, they would still leave their impression. When a person has thus acquired numerous experiences of the kind, as indeed no one can help doing, it is easy to understand that as the eye falls upon any similar kind of object, the kinæsthetic sensations are aroused by the principle of simultaneous association, and with them the feelings that belong to them; these are at once referred back again to the object, which then seems to have a direct appeal to the eye, pleasing or not, according to the sensations aroused. The object need not necessarily be one that has been actually used before, as the eye would easily pick out the lines that suggested sensations that had been previously experienced; thus the mere lines themselves would come to have a pleasing appearance quite apart from any connection.

Ideas are, it is now considered, always accompanied by motor sensations; the idea of a movement is the first step in the process of executing it, and even if the movement be inhibited, these motor sensations are present with the idea, however im-

perceptible. There is no doubt that these motor sensations do play an important part, though one very difficult to estimate, in producing certain of the feelings connected with form, especially perhaps in those of general composition and arrangement. A writer[1] of wide experience upon art has drawn attention to the fact that in a picture, any suggested issue or opening should always be to the right, and that any large mass blocking the composition of the picture or design should be to the spectator's left. In discussing the reason for this, he refers to M. Delauny's researches, which showed that it is the habit of people to move to the right, due to the usual predominance of the left side of the brain. This feeling is of course widely felt; we read and write from left to right, place the capitals at the left side of the word, and so on.

Thus, in addition to the ideas aroused in consciousness by form, there are a great number of obscure and ill-defined feelings of which we are only aware perhaps by the resultant like or dislike, pleasure or indifference; due to the stimulation through the eye of various muscular, tactual, and organic sensations with their feeling tones. Many of these may be memories, if the word can so be used, of sensations that even when originally received were only perceived marginally, but which exercised a certain effect upon the sum-total of feeling. These are in addition, of course, to the muscular sensations which arise from the movement of the eye itself, to which attention has already been drawn.

[1] P. G. Hamerton, "Notes on Æsthetics," 1889.

CHAPTER III

THE PSYCHOLOGY OF SENSATIONS AND FEELING (*continued*)

THE immediate effect of colours and sounds is, as a rule, hardly conscious, and we pay attention to it only when the mood excited enters into a certain opposition to other moods. It is told of a Frenchman of an unusually delicate sensibility—

"Il prétendait que son ton de conversation avec Madame était changé depuis qu'elle avait changé en cramoisie le meuble de son cabinet que était bleu." [1]

In order to feel these effects Goethe used to wear coloured glasses, and so to experience the change of feeling produced by a world of a blue, green, or yellow colour. These emotional effects can only be due to training or habit to a small extent, and therefore must largely spring from some innate or instinctive faculty of reaction to colour, quite apart from, and in addition to, any point of view due to mental action; although there are so many secondary ideas linked with colours and sounds, that it is very difficult, if not impossible, to discover what effect upon feeling the elementary sensations have in themselves.

[1] Quoted from Goethe's Farbenlehre, "Outlines of Psychology." H. Höffding.

In the mere liking, or rather craving for light, which is common to all or nearly all living creatures, we see one of the earliest forms of the instinct of the preservation of life at work. The influence of light is a condition of the change of inorganic into organic matter, it promotes metabolism in animals, especially in respiration. The satisfaction taken in light and the dislike to darkness is therefore a fundamental feeling, even apart from the fact that light means security, and darkness hidden dangers, foes, and a general inhibition of activity. Common language has always connected life and light, darkness and death. In addition, therefore, to the simple pleasure in due performance of function that every healthy organ possesses, there is a clear explanation of the origin of pleasure in simple light. Light, however, is not the whole of the function of the eye; it also enjoys, and therefore desires, colour.

"Let it be remembered," says Goethe, "how our spirits revive when on a dull day the sun shines out over a single part of the landscape and makes its colours visible. The attribution of medicinal virtue to coloured precious stones may have arisen out of the deep sense of this unspeakable delight."[1]

Colours may be roughly divided into active or exciting colours, such as bright purple, red, orange, yellow, and those such as the shades of blue and dull grey that have rather a depressing and subduing effect. Goethe describes the frame of mind induced by looking at a landscape on a dark winter's day through yellow glass as follows :—

[1] Quoted in "Outlines of Psychology." H. Höffding.

"The eye rejoices; the heart expands; an immediate warmth seems to breathe in on us. Blue gives a feeling of cold, and blue glass shows objects in a mournful light. Green produces the impression of great repose. Red is distinguished from yellow by greater restlessness and force in its influence upon feeling." [1]

It is clear that to some degree at any rate the feelings induced by these objects of coloured glass are due to association of ideas, though when Goethe remarked, on looking at a brightly-coloured landscape through a piece of purple glass, "This must be the tone of colour which will encompass heaven and earth on the day of judgment," there was evidently a pure state of feeling, an eery sense induced by the effect of a light that never was on sea or land, due directly to the light sensations.

Broadly speaking, sound and silence may be said to be for the ear, what light and darkness are to the eye. Any sound, if not too loud or harsh, naturally affords pleasure, merely because it sets in motion the organs of hearing. The noisy music of children and savages is merely the gratification of this impulse to stronger functioning. In sound, again, a sense of cheerfulness, energy, and activity appear as elementary feelings accompanying certain arrangements of sounds; while others have again a depressing and subduing effect. So, again, the way in which sounds or colours are combined—such as relation of form, symmetry, rhythm, harmony and so on, all have the same power of arousing

[1] Quoted in "Outlines of Psychology." H. Höffding.

definite feelings with their accompaniment of pleasure or the reverse.

It is important to keep clear the distinction between sensations and feelings, which are not uncommonly confused. This confusion is shown by speaking of the feelings accompanying sensations of pain, pressure, of heat and cold, &c., as independent sense-feelings; sensations such as those of touch are called "feelings," and especially in the case of sensations such as those of pain accompanied by strong feelings, the discrimination is apt to be neglected. On the other hand, it is equally inadmissible to ascribe to a given sensation a definite feeling fixed in quality and intensity. The sensation is only *one* of the many factors which determine the feeling present at any given moment. Besides the sensation, there are certain processes which have gone before, and certain permanent dispositions—conditions which we can, as a rule, only partially account for—which play an important part. An identical sensation may be highly pleasurable, distinctly distasteful, or completely indifferent, according to the different conditions under which it is presented to sense. Most sensation qualities are pleasant when of low intensity, becoming unpleasant when the intensity is increased beyond a certain point. This differs widely for different persons, or for the same person at different times; a sweet sensation of very moderate intensity is distasteful after a surfeit of sugar.

The more specialised sensations whose cognitive value is high have a comparatively feeble feeling

tone; visual sensations are not so strong in simple feeling as those of taste, although there is no doubt that there does arise an actual pleasure in following certain lines and movements which must be in and due to the movements of the eye itself. The pleasure in colour, again, is of a considerable degree of intensity; but with regard to the eye we are so accustomed to refer at once to the brain, that we can only with difficulty conceive the pleasure in the organ itself; moreover, the pleasure caused to the eye is at once projected into the object with which it is connected and considered as a quality of that object appreciated, and thus appears to be an intellectual pleasure. We shall return again to this very important point, and only mention it here to lay stress on the simple feeling tone of visual sensation that is so apt to be overlooked.

The organic sensations from the various functions of the body—the beating of the heart, breathing, swallowing, the various secreting organs, caused by modifications in the visceral system—have a strongly-marked feeling tone, but the actual sensations are so vague that the feeling tone predominates over the sensations. The pleasure or discomfort due to an impression made on the visual or auditory organs is often due to the reflex changes produced in the visceral organs, and in the circulation and respiration, which, although too slight to be detected even by careful attention, excite organic sensation with a well-marked feeling tone. So slight is the actual alteration that only experiments with delicate instruments will reveal

the changes. Professor Mosso[1] gives interesting details of certain experiments, showing that even when the subject was asleep the slightest stimulus determined an increased flow of blood to the brain; again, the breathing of a person asleep can be easily affected. In describing an experiment,[2] in which bellows for registering the rate of breathing were attached to a person asleep, he says:—

"A voice, a distant noise, a ray of light, a slight touch, any impression, is enough to rouse the bellows to renewed activity [this is of a man whose breathing is slackened in sleep] to double the number of heart beats, to cause the vessels of the whole surface of the skin to contract."

Féré, in "Sensation et Mouvement," describes a number of similar results, stating that an excitation imperceptible to the consciousness will produce effects as well as a conscious impression. The point of importance to note is that bodily changes producing their well-marked feeling tone of pleasure, or the reverse, are produced by impressions which, although they are received through the higher senses—the eye and ear—are yet able to produce effects upon the general feeling without any conscious recognition by or influence upon the brain.

"Until quite recently it was thought that the brain controlled the respiratory centre, accelerating or arresting its movements, but it has now been shown by Christiani that by means of a vivid light, which must strike the eye of the

[1] "Fear." A. Mosso, translated by Lough and Kieson (1896), pp. 77-79.

[2] *Ibid.* p. 123.

animal, deep and frequent inspirations may be produced even after the brain has been removed."[1]

These very slight modifications of function no doubt play an important part in feelings of pleasure, which are hardly strong enough to reach the pitch of an emotion. They are also independent of any mental action; an artistic and beautiful surrounding may produce a general feeling of pleasure that often is not, and cannot by careful introspection be, referred to anything in particular. This unconscious response, of which we are only aware by a vague like or dislike, a faint preference or distaste, which determines our choice, makes the value that different things have for us. It is always at work, in every degree of intensity, showing very clearly that, however much intellectual appreciation may add to and mould our tastes, there is this innate unconscious feeling which is produced by certain bodily modifications in response to sensations. Thus a work of art or a scene of beauty may, in addition to the main effects upon which the attention is concentrated, cause pleasure at the same time by a large number of subsidiary harmonies of colour, form, symmetry, which, while contributing to the total effect, only become noticeable, like the bodily functions, when the relations between the parts are inharmonious. They do, however, form an essential part of the whole feeling, and perhaps play a large part in the curious sense of inexhaustibility which keeps

[1] Mosso, *op. cit.*, p. 128.

drawing us again and again to works or objects of great beauty, under the impression that we shall always learn more ; and as we can never see it twice in identically the same physiological conditions, the resulting impression is always a little different, causing perhaps new lines of associative ideas. There is little doubt that the key to much that is curious in character and action, in pleasures and dislikes, may be found in the cumulative effect of a large number of sensations below the level of consciousness, each one of which exercises an inappreciable effect.

The feelings that arise immediately from sensations form a continuous series from the simple general feeling up to the finely differentiated shades of feeling that accompany the qualitative sensations of the higher senses. It is easy to imagine that these stages represent the course of development. Before the appearance of special organs and functions, feeling could only have been a chaotic mass, a mere expression of impulse as to the course of life, but of the highest importance as a motive for movement.

In general the relation between feeling and sensation is in inverse ratio to their strength ; the stronger the feeling element becomes, the more the cognitive element tends to diminish. The sense impressions which excite the strongest pleasure and pain teach us least as to external relations, although they may be of the highest importance as warnings or sources of attraction. In its most primitive form the strength of a feeling is mainly determined by

the degree in which it affects the course of the organic life. This is especially the case with those sensations that call out instinctive movements; the stress of feeling aroused entirely dwarfs their qualitative character. When, however, the qualitative aspect of the sensation is able to make itself felt, the feeling answering to the sensation is differentiated and specified. It gains in richness and varied gradation what it loses in force, and becomes also more independent of the immediate stress of the struggle for existence.

Æsthetic sensations being principally received through the eye and the ear, are therefore naturally outweighed by their qualitative properties, since the actual strength of the sensation is structurally limited, and therefore cannot be of sufficient intensity to obliterate the cognitive faculty in favour of pure sensation.

It is clear enough how ideation and the connection of ideas helps to stimulate the development of the feelings, but the effect of feeling upon ideation is of a far more fundamental character—indeed, so profound and far-reaching is its influence that, to a large extent, we may say that it is feeling which not only settles about what we shall think, but to a large degree determines the conclusion to which we shall come. It is important to bear in mind the "inertia of feeling," which is a fruitful source of much of the inconsistency of action in history and everyday life. A new thought, or new point of view, however logically unassailable—one which, to those who perhaps are reading of it subsequently

in history, appears as a self-evident fact—may require long periods of time for its general adoption; a valuable safeguard doubtless, however foolishly it appears to act in individual instances, for it has, of course, its corresponding value in strengthening the hold upon the new truth when once adopted.

We hold a theory, or an idea, with an extraordinary intensity when it is one that coincides with our feeling, and in our everyday experience only regard that which supports our cherished belief, disregarding or giving but scant weight to adverse facts or arguments; and ideas that do not harmonise with it are apt to be suppressed. Love is blind, it is said—in some respects perhaps so—but really it is the keenness of its sight in discovering the pleasing attributes of the loved one that helps the reason not to give any weight to disagreeable traits. We come here to the line between feeling and will; for a man urged on by a passionate longing can will to delude himself, he can repress his more sober reflection, and can set all his faculties to work to prove that what he wants so strongly is veritably the right and proper course; he cannot stand the contradiction in himself, and must make inclination and duty coincide. So in a milder way we cling to some favourite opinion; we act upon it and assert it, conscious perhaps that we have no adequate reason to support it, but are quite undisturbed by that if we have the feeling that it is right; for most people are not given to dealing strictly with themselves, and will be found

to make up their minds first, and then look about for reasons in order to justify the opinion.

So strongly indeed may this effect of feeling be carried that it affects even the senses, so that in a moment of strained attention we seem to see the signal, or hear the expected sound before they occur. The difference between memory images or imaginations, and real objects of perception, is apt to become lost where feeling is strongly excited, so that ideas become actualised. This is even more strongly evident in the sphere of thought, where feeling anticipates the result and decides the question at once, instead of going through the tedious process of logical reasoning. Feeling is apt to dispense very quickly with distinctions, conditions, limitations—finding or insisting upon things being perfect and absolute, leaving to cognition the subsequent task of the determination of conditions, or of the possibility of practical steps; and if it continually and strongly permeates the thoughts, it soon drives the mind further on, and so leads to the formation of an ideal world from which the imperfections and sufferings of the actual world are removed.

It is, no doubt, because of the obscurity of its action, and the inexplicable nature of its effect, as well as its strength, that feeling exercises so strong an influence upon process of thought. It is generally possible to trace the steps by which a reasoned truth or logical conclusion is reached; but feeling has its source in the natural instincts, modified perhaps and largely affected by the sum of the

innumerable small experiences of everyday life and environment; the effect of which is only apparent after long intervals, so that we can at the best see but a very small part of its course. However obscure the way in which feeling is determined, its influence is clear and strong, and not only does it tend to expand and dominate consciousness, but it insists upon the reason finding not only an explanation of, but a justification for, its particular bent or point of view. That this should be so, follows naturally from the instinct of self-preservation; for the very fact of survival and development is a proof that in the long run man must have cared for the things that were beneficial, or he would have been speedily eliminated. Again some explanation is necessary, for whether his feeling be pleasurable or the reverse, it is an experience of the external world; and man must interpret the signs, and, if he can, find the causes, in order that the best advantage may be gained to help him forward. As development proceeds, he finds his innermost nature seems to be revealed by feeling, and he at once proceeds to look for justification of his feeling, and his conceived meaning of the universe. Feeling is not, however, in any real sense a source of knowledge, and all discussion ceases when an appeal is made to simple feeling; but it is the cause that starts and induces inquiry, and spurs the individual to every kind of active investigation, though it can bring no answer itself. As Professor Höffding[1] points out, feeling, as purely

[1] "Outlines of Psychology."

individual and incommunicable, isolates individuals, but at the same time, from its needs of explanation and justification, it brings them together, for only in union can they find a hope of explanation. Art, chief of all the means of expression, is naturally made use of to describe and impart to others the various feelings; indeed, so strong an impulse to art lies in this, that some writers have found the sole cause and *raison d'être* of art to lie in the need of self-expression.[1]

Feeling also affects ideas; by what Wundt has called the analogy of sensations, it has as it were an attractive power not only over the ideas of the same kind as that which originally gave rise to the feeling, but also over other ideas which excite similar feelings, and thus the feeling itself becomes the link between different kinds of ideas. The common element of feeling accompanying free and easy respiration, light after dark, pure tones and rhythmical melody after noise and discordant sounds, comprehension and order appearing in an apparently tangled maze of facts—all form an analogy of sensations. It is in music perhaps that this is peculiarly evident, and perhaps most strongly so in those persons that have least knowledge of, or technical training in, the art. Some events, or experience, may serve as a concrete image of the general mood; and though in such dreaming the specific effect of the music be lost, it is difficult not to give way to it, at least to some degree, and much of the power that music has over

[1] See p. 167.

men lies in this quality by which the memories that it arouses spread out to touch all the experience of life and all sides of our being.

If a sensation be considered carefully, it will be at once noticed that in nearly all cases it has two elements, or aspects, which can be clearly contrasted. Thus, if some substance, say a piece of chocolate, be placed in the mouth, there is at once a characteristic sensation which enables us to pronounce it chocolate; at the same time there is another and distinct sensation of agreeableness or pleasantness, in consequence of which it is liked or disliked. Of the two, the recognition of the characteristic taste requires memory and previous experience; the liking is a natural faculty, and, putting aside for the moment likes and dislikes acquired by habit, is unaffected by any process except the simple pleasurable response.

The feeling of pleasure has been referred to frequently, and it now becomes necessary to consider in more detail what pleasure is, and how it arises; since in all questions of æsthetic enjoyment it is fundamental. The whole aim of art and the whole meaning of beauty lie in pleasure—passing from the mere pleasing of sense up to the highest intellectual enjoyment. Pleasure, using the word in its widest sense, is in some form or other the spur of all activity and the goal of all effort. At the present moment, however, it is only proposed to consider it in its simplest physical form as accompanying certain sensations.

A feeling of pleasure determines and accom-

panies appetition, or a tendency to seek or prolong the pleasant sensations, while an unpleasant one produces or at least accompanies an aversion, or tendency to withdraw from or alter the conditions.

The fact is also well known that pleasure causes an increased energy, or enhancement of all the vital functions, while the unpleasant produces a depression of activity; although to be on safe ground, and in order to avoid any conclusion as to which is cause and which is effect, it would be more correct to say that increase of energy or activity is accompanied by or goes with a feeling that is described as pleasurable, and that an unpleasant feeling is found with a depression of vitality.

Is pleasure the opposite of pain? This is a natural and almost universal antithesis, but a careful examination will show that they cannot be really contrasted, unless carefully defined, in this way. As a matter of fact, pain is a sensation, pleasure is a feeling; but as pain is invariably accompanied by unpleasant feelings,[1] the word has come to stand for both the sensation and the feeling, and so for practical purposes for the feeling itself. This is a point of considerable importance in the whole question of motives and tendencies, and requires a little further consideration.

[1] This statement may be allowed to stand, although there are, no doubt, certain kinds of pain accompanied by feelings that are in a way pleasurable. This phenomenon of "pleasure-pain," of course, makes it quite clear that pain is a sensation, which gives rise to feelings, according to its quality and intensity, as do the other sensations.

There are, as we have seen, definite nerve endings, which have apparently been found all over the body; nothing of the same nature has been discovered or even suggested for pleasure. Frey[1] states that pleasure is the absence of pain, and therefore requires no special nerves. Pleasure is too obviously more than the absence of pain to make this conclusive. Pain is a vital warning, pleasure is as it were a luxury; the pleasurable feeling is not even necessary to the appropriate reflex actions, though without it as an inducement human activities would soon languish. We have good reason to believe, and the point is elaborated in the chapter on primitive instincts, that pleasure does not arise until consciousness is developed—that is to say, that pleasure is not existent until the different nerves have carried the sensation to a brain. We see arising and developing in the early organism various reflex actions and co-ordinated movements of a considerable degree of complexity that are produced in direct response to stimulus, without the necessity of any central nervous system, in which it would be as out of place to talk of pleasure as it would be in the case of a flower turning to the sun.

Why, then, should pleasure have been developed if it is only, so to speak, an epiphenomenon of action or sensation? The answer seems to be, that it is a necessary corollary of consciousness and the power of choice. If an animal of increasing intelligence is to have any power of adaptation,

[1] "The Psychology of the Emotions," Ribot, p. 51 (1897).

he must have a power of choice; if he is to choose correctly, *i.e.* in such a way as to be of benefit to himself or his race, it is necessary that something should appeal immediately to his consciousness, in addition to the unconscious impulse or the remote advantage to be gained for the race—something which would lead, later on, to a conscious direction of his activities in the best direction. Whenever the appropriate action was performed, function duly exercised, suitable environment or food procured, we may suppose, an increase of general vitality, or some similar phenomenon—the conscious mind had to be made aware of this, and so made aware that it should tend to its repetition; such activities would be accompanied by a general feeling, and this feeling would be pleasure. Any animal that by chance variation found more pleasure in things less useful would be eliminated; and though we can hardly follow this out completely, we see very clearly that the strongest instincts have the keenest pleasures or the strongest feelings of discomfort.

Pain, being a sign of something detrimental to life, would be accompanied, in addition to the sensation, by a strong feeling tone of discomfort; and pain, being the most unpleasant thing we know, is applied naturally to the extreme of mental discomfort in accordance with the invariable rule by which every physical sensation has its mental counterpart. Pain, too, certainly makes a stronger impression than any of the sensations causing pleasure or joy, perhaps because it is primarily

a motive to activity to remedy something that is wrong, while pleasure is an indication that, at all events for the moment, things are as they should be. If a strong instinct of any kind is thwarted or prevented, we do not get a sensation of pain, unless we use the word metaphorically, but we do get what may be called the opposite of pleasure; and this, although different in kind from pain, may amount to such a degree of unpleasantness as to make a very considerable amount of pain preferable. All forms of pleasure are accompanied by, or rather perhaps accompany, the organic modifications previously described. Primarily it is physical, attached to a sensation, a soft warm contact, the satisfaction of hunger, and so on; then it becomes an anticipation—*e.g.* a dog seeing his food being prepared; then ascending, the pleasure becomes attached to pure representation. This forms the main group of pleasures, and provides the varied and numerous joys of humanity, as it becomes divided into many varieties, egoistic, sympathetic, &c.; still rising, it reaches the highest and rarest manifestations attached to pure concepts, the pleasures of æsthetic creation, of the metaphysician, the scientist, and the religious thinker.

It is interesting to note that at every stage we see the means devised by nature to secure her ends converted into the end in itself, even when the intellect clearly realises the ultimate aim of the instinctive pleasure; and the pleasure, originally the criterion, becomes regarded as the end to be aimed at. It would be an interesting and not a

difficult matter to trace the transition from a strictly physical pleasure, such as that of a cool drink to a thirsty man, step by step to the most intellectual and ideal pleasures, showing how the two qualities — sensory and representative — are always co-existent, and that we qualify any given pleasure according to the prominence of one or the other. In æsthetic enjoyment we find a simple sense feeling of pleasure in forms, colour, and sounds; certain colours, certain qualities of sound, a certain arrangement of objects, produce at once a pleasurable impression. "Agreeable states," says Herbert Spencer, "are the correlatives of actions which conduce to the well-being or preservation of the individual." Instinctive desires and aversions are, as we have seen, inextricably bound up with the action necessary to preserve the individual and the race in the long struggle for existence; and we hope in Chapter V. to make some suggestion as to the possible basis of our pleasures that are usually classed under the head of æsthetic.

It must always be remembered that there is no such thing as an absolutely independent sensation; every sensation is determined by its relation to the one experienced immediately before it, or at the same time. This is, of course, a matter of common knowledge—the same water will feel hot or cool to the hand previously dipped in a colder or hotter liquid. Colours are determined very largely by their neighbourhood. If one colour is placed by the side of another which is not its complementary colour, the one will always be affected by

the complementary colour of the other. A grey strip of paper can, by being laid upon various coloured sheets, be made to partake of the colour of each in turn, the two being covered with transparent paper to soften the outline. If the eye be turned from a strong red to a white surface, a greenish gleam will appear. These effects, unnoticed as a rule, enter into all sensations of colour. We cannot regard this as due to illusion, or erroneous inference, since it is the rule, not an unusual effect appearing only in exceptional cases. Every sensation is determined by its relation to other sensation, and its existence and properties are thus decided.

If any object has once been presented to any sense organ, it is possible subsequently to recall its appearance. Such a recalled image cannot be kept constantly in the focus of attention, but it can be continually summoned back again, becoming more vague, uncertain, and lacking in detail according to the time that has elapsed since the original impression, and also to the intensity of the first sensation. This is the *idea* of an object, and differs from the original in being less intense, less constant, and in attracting the attention less forcibly. In normal conditions we are able to distinguish an idea, or image, of a thing, from the original of which it is a representation, by a peculiar vividness attached to the actual sensation. This is something more than a difference of intensity, for a sensation may be far less intense than the image or idea of a sensation, and yet

possess the peculiar quality by which we at once pronounce it to have a real objective existence. This sensory vividness seems to be a fundamental character of experience. In cases of abnormal condition of the brain, hallucinations and imaginary images may so acquire this vividness as to produce a complete illusion of actuality. Most people, while able to call up images of all kinds with readiness, find that some classes of sensations are more readily reproduced than others. For the majority it is the visual imagery that is predominant, though there are many people who have a keen auditory imagination. If a person is lacking in any of the sense organs, or has lost one at an early age, probably before the third year of life, he loses the power of experiencing the corresponding imagery. If a person has enjoyed normal vision for the first few years of his life, he continues able to call up visual images even though the eyes may have been actually removed. Images, therefore, do not involve the activity of the sense organs. If, however, one of the sensory areas of the brain be destroyed, the subject becomes incapable of experiencing not only the sensations normally excited by the processes of that area, but also the corresponding images. An important point to notice is that the feeling tone which is produced by images or ideas of sensation do not differ from those produced by the sensation, except perhaps in intensity, although often indeed the feeling produced by a revived idea of some occurrence may be actually stronger

than that felt at the time. We shall return to this point in dealing with emotions. It is, of course, of great importance to the artist, who can, by his power of arousing ideas and images, cause as strong a feeling as the actual thing he represents, or perhaps even stronger, by accentuating a particular aspect of it.

The feelings which are linked with the sense of sight and hearing, and with free ideation and activity of thought, are more easily reproduced than those which we owe to the lower senses, and especially than those which arise from the organic functions. They are consequently more freely at our disposal, and less easily interfered with by external considerations, a fact which is of the more importance since to this class belong the intellectual, moral, and religious feelings.

The immense variety of our sensory experience is due to the complex fusions of these elementary qualities in different proportions. This is true also of the lower senses, such as those of taste. There are innumerable sensations always falling on the various sense organs which are giving rise to various reactions producing feeling tones. These are again mixed up, modified, and altered by ideas of previous sensations also producing feeling tones, all of which at any moment form in consciousness a unitary whole which is not, however obviously complex, a mere agglomeration of parts or features which could by sufficient introspective power be analysed and distinguished, but is a distinct and complete state of mind.

We have so far avoided the use of the word "perception," in order to keep in view as far as possible the assumption that sensations and the corresponding images, with their accompanying feelings, are psychical elements, and that all states of consciousness are syntheses of various forms of these elements.

When the attention is drawn to any object, we are said to perceive that object, while all the other impressions that are exciting sensations at the same moment fall into the field of inattention. We may say of them that they are sensed, but not perceived. These so-called marginal sensations largely affect our conduct; stimulate various routine adjustments in our movements, *e.g.* as we pick our way over rough uneven ground; while the attention is fully occupied otherwise. The object that is in the focus of consciousness, that is "perceived," arouses not only the particular sensation proper to itself, but also images of sensations previously experienced; and the degree to which this takes place may vary to an indefinite extent, depending upon the experience, training, habit, temperament, &c., of the person. Perception involves the synthesis of sensations and images of different senses and in the establishment of relations.

As the greater part of the book deals with various forms of perception, we need not stop now to describe the many different varieties; we have seen roughly that the perception of object is, so to speak, the method in which the perceiver is affected by any sensation or combination of sensations upon

which his attention is fixed—due to his whole inherited disposition, character, training, education, and previous experience. We have to regard the brain of the adult as consisting of a great number of circuits or sub-circuits of nervous systems; organised with various degrees of completeness and stability, more or less closely interconnected. Some of these perceptual systems are congenitally determined; inherited, developing naturally at some stage in the individual's life; others are built up by the course of experience. The perceptual life of most of the animals must be regarded as almost completely controlled by congenitally organised perceptual systems. Man differs from the animal in his power of greatly modifying his inherited systems by experience, and power of developing new systems peculiar to each individual.

Such congenital perceptual systems are called instincts, and the action which the appropriate object calls forth we call instinctive actions; and although man's capacity for learning by experience, and modifying inherited tendencies, largely obscures the simple manifestations of instinct by acquired modes of action, nevertheless they form the groundwork of his nature, determine the nature of his activities, and settle in what directions he will find his pleasures in life. Even under the present artificial conditions the old hunting instinct is strong, and forces the majority of men to find in some form or other methods of gratification. The rivalry and sense of success in getting the better of others, the natural outcome of the struggle for

existence, forms the basis of many of our strongest feelings of pleasure or the reverse. Ambition, the last infirmity of noble minds, is but one branch of the same tree. Deep down in the heart of all lie these old tendencies and instincts that find their gratification in many ways that seem so far removed from their original purpose. In speaking of the pleasures accompanying instinctive tendencies to action, we are really touching upon the emotions; and although there may be no more difference between a feeling and an emotion than that of a degree of complexity, it is useful in considering them to draw a distinction, if only an arbitrary one. Feeling has been treated simply as a state of consciousness, pleasurable or distasteful, directly responding to some peripheral stimulation, while an emotion always involves some perceptional or ideational activity. The important point to emphasise here is that the senses do, apart from and previously to any intellectual or perceptual additions, respond by a distinct feeling tone to form, colour, rhythm, and harmony, since in this response lies the innate pleasure in beauty. We now pass on to consider the question of the feeling tones associated with the more complicated instinctive tendencies.

CHAPTER IV

EMOTIONS AND INSTINCTS

It is due to the possession of an inherited nervous disposition that it is possible for a person to have a distinct attitude of perception towards, and a tendency to act in a particular way with reference to, certain objects without having had any previous experience of such or similar things, the action being adapted more or less completely to secure the advantage of the individual or the species. Such congenital perceptual tendencies are instincts. Whenever an appropriate object arouses in us an instinctive response of any kind, we notice—that is, if it is of a sufficient degree of intensity—not only an impulse to a certain kind of action or certain motor manifestations; movements, gestures, attitude of the body, changes in the voice, blushing, pallor, trembling; alteration in the secretions, respiration, circulation, and so on; but at the same time are aware of an emotional state of consciousness which is either pleasant or unpleasant—that is, it is similar to the state of consciousness that we have described under feeling, but more diffuse, and not referred, as a rule, to any particular part of the body, or connected with any sense organ.

An emotion may be considered to be a more complex form of feeling, standing in the same relation to simple feeling as the simultaneous association of ideas stands to simple perceptions on the mental plane. That is to say, that in an emotion it is the pleasantness or unpleasantness of a total situation or predicament that is felt—the whole complex of ideas which represent a certain concurrence of processes or collocation of objects in the outside world. An emotion contains an ideational or representative factor. A man, let us say, is suddenly confronted by some one pointing a revolver: he supplements this by the idea of the effect of a pistol; the fact that the man is an enemy; that he is alone and unarmed, &c.; at the same time he feels the scene in its totality as dangerous, the feeling tone of his recognition of this fact is determined by certain internal adjustments that are very highly unpleasant, giving him the feeling he calls fear and driving him to every expedient to get rid of.

An emotion, then, arises in this way; the stream of consciousness is interrupted by an idea to which the attention is forcibly attracted; this idea is immediately supplemented by other ideas, and a simultaneous association is formed, reflecting a scene or situation in the physical world. An organism thus brought face to face with a particular situation has to meet it by a particular set of movements and bodily adjustments which, with the corresponding visceral changes, determine the feeling tone. Feelings pass into emotions with such extreme rapidity that it is as impossible, practically,

to distinguish between an emotion and a feeling as between perception and sensation, but for the purpose of discussion, the distinction, if arbitrary, is convenient in order to keep the development of the emotion in a clear sequence; but it is as doubtful whether an adult ever has a pure feeling as it is whether he can have a pure sensation.

Instinctive reaction and emotional expression shade imperceptibly into one another. "Every object that excites an instinct excites an emotion as well."[1] Emotions are not occasioned merely by the perception of certain objects; they are occasioned only by occurrences or ideas which run counter to or help to further pre-existing tendencies. This is obvious enough in the case of the coarser emotions—the anger of a dog at being deprived of a bone involves a pre-existing need or desire for food: we can trace the same principle through many of even the subtler emotions, and we can fairly assume it true of all emotional response, however intellectualised the original instinct may have become.

In the case of the higher animals we observe similar tendencies to action, bodily movements, &c.; these are usually allowed to proceed unchecked, while in human beings governed by reason, the action that would naturally follow is commonly prevented or modified by the will, in accordance with previous experience or reasoned policy. Thus it happens that in our own case we attach the greater importance to the *state of consciousness* of

[1] W. James, "Principles of Psychology," vol. ii. p. 442.

emotion peculiar to each instinct, and characteristic of it, while in the case of animals we notice chiefly the resulting actions and movements. The result of this is, that it is common to speak of the "instinctive actions" of animals, and of the "emotions" of man as though they were something different, whereas they are but two sides of one process, the objective and subjective effects of the excitement of inherited perceptual dispositions. Certainly it is difficult to trace the relations of the more subtle or derived emotions to instinctive modes of action, but even these can—by a careful analysis and classification with reference to bodily activity or tendency to action—be shown to have their basis in some originally useful instinct. In the case of the primary emotions, as in anger, fear, love, the relation to instinctive life-preserving action is clear enough.

In order that the bodily system may be in the best possible condition for effective exercise of the necessary activity, certain adjustments of the visceral organs, circulation, respiration, &c., are necessary; these adjustments follow, like the bodily movements, immediately from the excitement of the instinctive—conative tendency—forming "serviceable associated habits" to the instinctive actions. Since these visceral adjustments cannot, or can only to a limited extent, be controlled, while the instinctive bodily actions can generally be prevented or modified, and as they are moreover peculiar to, and have a recognisably different feeling tone for, each form of instinctive impulse, they

have not unnaturally come to be regarded as determining the emotion.

In the case of emotional excitement that is of a very high degree of intensity, there are other specific symptoms due to the great amount of nervous energy liberated, which then tends to diffuse itself through the system. This free nervous energy which surcharges the nervous system tends to escape along all efferent channels, and, if too intense, may end in convulsions that upset all power of co-ordinated movement, and so prevent the performance of even the instinctive actions. If of less intensity, it shows itself in the trembling of the muscles, ejaculations, cries, screams, weeping, laughter, &c.

As already remarked, these organic sensations are accompanied by certain states of feeling which are agreeable or disagreeable, or mixed in every possible variety of quality and degree of intensity. Now of these two groups, the motor manifestations and visceral adjustments on the one hand, the pleasures and discomfort on the other, which is fundamental? This has already been discussed with regard to simple feeling, and again it must be concluded that the feeling of pleasure and displeasure is superficial; the deep element lies in the tendencies, appetites, needs, desires, which express themselves in motor tendencies, and it is not difficult to conceive the whole process passing completely through with no sensation of pleasure or pain.

"These agreeable or painful states are only signs and indications; and just as symptoms reveal the existence of a disease which must be looked for deeper, so pleasure and

its opposite are only the effects which must guide us in the search for causes hidden in the region of the instincts." [1]

We need not stop to discuss which of the instincts is the most primitive or the earliest to be developed—they are all necessary, or at any rate useful, to preservation of life in the individual or the race; but we can accept the fact that at the root of each of the primitive emotions there is an instinct or tendency, and that these instinctive desires and emotions are developed as life and mental power grows more complex, being subdivided and recombined in ever varying ways, rising gradually from mere unconscious impulses to higher and higher intellectual forms, until the early tendencies become the highest aspirations of science, art, and religion.

At the base of our intellectual life, the spur to further action, as that which gives value to the result, lies in some form or other an old instinctive craving or tendency born of the struggle for existence, all of which are, or were, in some way or other useful in determining survival or continuation of the race—some have dropped out, useful only in the earliest stages, but still leaving traces behind them in rudimentary organs, in curious longings and ill-defined wants, in unexpected feelings of pleasure and delight, or vague dislike and discomfort.

With the development of intellectual power and reason, the necessity for instinctive action is replaced

[1] Th. Ribot, "Psychology of the Emotions," p. 3.

by a higher and more effective guidance. The old desires and tendencies are with the growth of the mental power translated into the terms of the ideal, always in the direction of leaving the mere physical satisfaction as of less importance than their intellectual counterpart. Take, for example, the commonest emotion, love; starting from a simple physical impulse, it becomes more and more penetrated with psychical feeling, reaching in the average man a fair mixture of organic and psychic elements; becoming again more and more intellectual, the idea appearing first, being perhaps for a long time free of the physiological side—finally in the latest stage the personal concrete image is replaced by a vague impersonal concept, a kind of mystical love in which the organic stimulus is so slight as often to be denied altogether.

We have now seen that any physical tendency or craving, and the pleasurable feeling that accompanies it, always have their parallel in a corresponding intellectual process; an emotion, as we have seen, is the accompaniment of an instinctive reaction, and can be revived as strongly, or nearly as strongly, by an idea of a sensation as by the original sensation itself. We cannot revive an emotion—we can only remember that we felt glad or sorry or pleased; but by reviving the causes in memory we can reproduce a similar but new emotion. We found that a pleasurable emotion is felt upon due performance of instinctive reaction; and, though originally developed to meet certain ends, these ends need not be fulfilled, or even

apprehended, in order to produce the pleasurable feeling; consequently the pleasurable means tend to become sought as an end in themselves. We see this in all the instinctive tendencies: the sportsman enjoys his hunting though he does not want the quarry; it is not the thought of preserving the race that makes men fall in love; this reaches an absurd exaggeration in the miser who hoards and loves the gold, no longer caring for the things which make gold desirable. The scientist enjoys his research, and pursues it with an almost passionate ardour, spurred on by one form of the valuable instinct of curiosity which in another shape leads a gossip to listen at keyholes. Games are played in which the joy and grief come from the old instincts of rivalry, fighting, and hunting. We need not pursue these illustrations; we find everywhere that keen intellectual enjoyment is possible, rising to emotional degrees of intense pleasure or the deepest distress, quite apart from the end to be gained.

In discussing the simple feelings we found that there was in all sensations an affective, or feeling, tone, that was either pleasurable or the reverse, which reached a considerable pitch of intensity accompanied by bodily changes, and broadly speaking only differed from a full emotion by being simpler and less diffuse; that these feelings which determined our likes and dislikes were directly traceable to the absolute need for the discrimination, and the power to take advantage of the conditions surrounding the developing organism. It is by these sensations, actual, or

revived in idea, and the feeling that accompanies them, that we place or name the total emotion, and call it higher or lower according to the sense involved. The higher are again divided into many branches—moral, scientific, æsthetic, religious, &c. When the total effect—due probably to its appeal to sensation in the eye or ear, by colour, form, rhythmical sound, or movement—arouses a particular and easily recognisable emotion, always connected with the beautiful in some form, we call it an æsthetic emotion, although the actual intellectual process may be similar to that in many other of the intellectual pleasures. Emotions, as we now experience them, are so complicated that it is never possible to say of any particular state of feeling that it is only a simple emotion, say of love, anger, jealousy, &c. Love, according to Herbert Spencer, is often a compound of physical attraction, æsthetic impressions, sympathy, tenderness, admiration, self-love, love of approbation, love of possession, and desire of liberty; it is indeed impossible to say in any case how a composite feeling is constituted. A man in love tinges all his feelings with a rich vein of feeling that stimulates all the other emotions; and it is well known that the excitement of any one emotion tends to spread over the whole life of consciousness, and seeks to impart its own colouring to all the elements of life—indifferent as to whether they are connected or not with the original cause, it overflows and enhances all the emotional life. Much misunderstanding and unnecessary difficulty has been

caused in the consideration of the æsthetic emotion by an attempt to shut it off and treat it as though it were a separate whole, whereas it is compounded of many branches of the primitive emotions, probably, at one time or another, of all that the mind has succeeded in raising into the intellectual and ideal regions.

For example, we find it repeatedly stated from Aristotle onwards that the characteristic of beauty is unity in variety—that is to say, that there is a feeling of pleasure in being able tc apprehend as a whole a number of different objects or ideas. The mind or the eye, brought face to face with a number of disconnected and apparently different facts, ideas, shapes, sounds, or objects, is bothered and uneasy; the moment that some central conception is offered or discovered by which they all fall into order, so that their due relation to one another can be perceived and the whole thus grasped, there is a sense of relief and pleasure which can be very intense. In an earlier stage this may be simply the finding of a practical way out of a difficult position, and, we may well imagine, need not be more than a half-conscious sense awareness for practical action of the general meaning of a particular set of circumstances. This quality of the brain would have in the struggle for existence a value hardly to be over-estimated; but whether it is the metaphysician reducing the universe to one great conception, the man of science discovering a great law of nature that reduces the complicated series of isolated facts to a single apprehensible unity,

an architect who by a careful ordering of parts and repeated detail makes a whole of which the complete intention can be grasped at once by the eye, or the musician working out his complicated series of sounds so that an obvious order and arrangement can be perceived, the intellectual process is psychologically the same, and the pleasure that results in part is due to this sense of comprehension and in part to the feeling tone of the particular sensations that are connected with the whole result—if æsthetic, to sound, form, and colour. The more sensations that are appealed to, the richer and more intense the corresponding emotion. How intensely pleasant the scientific discovery of a satisfactory proof of some theory, or, if we like to call it so, a striking case of unity in variety, can be, is well shown by stories of scientists, such as that of Sir Humphry Davy dancing in his laboratory for joy on making some successful experiment.

If we choose to label this feeling æsthetic when it is brought to our notice in connection with certain sensations, there is no objection, provided that we keep in mind that the fact that pleasure in recognising unity in variety, or similar qualities, is common to many other intellectual pleasures. We shall find this equally true of any of the other attributes assigned to beauty as the cause to which our pleasure is due. They are intellectual pleasures common to all branches of mental action determined in a particular direction by the peculiar feeling tone that accompanies pleasing sensations of colour, form, &c.

Another instinctive feeling that has a far-reaching influence, and which plays a larger part than is always acknowledged in our enjoyment of works of art, is that which may be described as the recognition instinct, the pleasurable response with which we greet something that is known or familiar. In the next chapter we discuss this instinct in its primitive form, in which it appears as a simple life-preserving faculty. In its more advanced form it is shown in all kinds of ways—in the desire for the accustomed, in home-sickness, in the love of the country and place of our childhood; in any trouble or distress it is to the familiar that we turn instinctively. The feeling of fear or dislike of the new or strange is most marked in the ill-educated and those wanting in power of reasoning. It is particularly noticeable in young children, who are afraid of a strange face, cannot sleep in a strange bed or in unfamiliar surroundings, dislike a new taste or, indeed, any novel sensation; while the simple joy in recognition is very clearly shown in the delight with which they acclaim anything that they are able to recognise—an animal in a picture-book, a horse or a cow in a field. It was of obvious importance to animals developing in a keen struggle for existence to have a quick discrimination between the safe and the dangerous—the environment and objects in which they were developed, and to suit which they have become adapted; to feel strongly the absence of such, and to have a keen feeling of pleasure in the familiar sensations.

Pleasure in the familiar, of course, involves the

converse—fear of, or dislike to, the unfamiliar or strange, which has to be regarded as, at all events possibly, dangerous. This requires some modification, because if all new objects were avoided and retreated from as perilous, there could be no advance; so we get a further instinct of curiosity and interest in things that are strange. This is usually coupled with a considerable degree of fear. Watch a dog approaching a piece of newspaper caught on the ground and moving in the wind; the cautious steps, the frequent halts, the limbs braced for quick and immediate flight, well show the impelling curiosity to investigate overcoming the distrust and desire simply to run away. We find in ourselves that things sufficiently strange cause fear if we cannot in any way understand them, as, for example, if we think we see a ghost or something uncanny; as Professor James says, there is no one whose heart would not stop beating if he suddenly found his chair moving across the room without visible cause. In a lesser degree we find simple dislike, distrust, or doubt, unless the difference from the familiar or the normal is sufficiently slight to be easily fitted in with previous knowledge. A new fashion in clothes must not deviate too startlingly from the prevailing habit. We are satisfied by the small steps by which we pass from one to another. Two fashionably dressed people of perhaps fifty years apart will each think the other's dress silly and ugly. Any novelty to be pleasing must not, as a rule, differ by too large a degree from what we are accustomed to. Curio-

sity and the need for gaining increased knowledge and experience are as necessary for development as the safer instinct of avoidance of the unknown. This makes, as it were, a compromise—a curiosity as to anything new, and the acceptance of it pleasurably if it does not do more than accentuate some feature already familiar by habit or pleasing by congenital tendency.

It is to this quality of taking pleasure in the familiar that we grow by custom to tolerate, and then even to like, something that was initially unpleasant. This does not refer to the formation of habit, which involves other considerations, such as power of adaptability, &c., but merely of the finding pleasure in and feeling the want of things that have, as the saying goes, grown dear by habit. The same holds good with regard to abstract ideas: a new conception of matter, of motion, of electricity, a new theory of anything, will cause us great pleasure if we can graft it on to our previous conceptions of the things, if we can accept it without doing violence to any of our preconceived notions. If, on the other hand, it runs counter to, or upsets some cherished belief, we either refuse altogether to agree, or we are much troubled until we have so succeeded in readjusting our views as to take it in. A good illustration of this is the position of the orthodox and the principle of evolution. At first the idea was scouted, and, as far as possible, its existence ignored; when the proofs became irresistible, and it had to be accepted, it was somehow worked into the old

religious forms, and found not to be incompatible with them.

It is indisputable that this pleasure in recognition plays an enormous part in all questions of pleasure in art. Many people judge a portrait entirely by the degree to which it recalls the subject; sight-seers at a picture gallery are delighted to recognise a bit of country or something they know themselves. Imitation is the very basis of art work, and appeals primarily to this strong instinct that gives such pleasure in simple recognition. Of course this does not for a moment mean that imitation is the end of art—it is only the beginning; but the mere fact of the spectator recognising a slightly novel, and so pleasing and interpretable, aspect of a familiar object, touches an emotional impulse which puts him into a favourable and receptive condition, thus adding its quota to the effects of harmonious colour and line, and all the other appeals to emotion which the particular work of art may have. Realism, or the literal presentment of the familiar, is a direct appeal to recognition, generally with the slight but piquant addition of a novel aspect, but not too novel for easy and satisfactory adjustment. It should be remembered that many a scene or object of striking novelty may at the first sight strike home with a wave of strong pleasure; in such cases we may fairly assume that it has a direct appeal to some congenital tendency, some inherited faculty that has not previously had an opportunity of exercise.

We shall try to indicate later how this demand

for the familiar would lead directly to pleasure in symmetry, in balance, proportion, when dealing with the simpler instinctive reactions, for an organism would naturally crave for the conditions to meet which it was developed.

The emotion of sex is one of the emotions that plays a highly important part in art feeling. To the person in love everything is beautiful, the whole emotional condition is unstable, and can be touched off by almost any object, which is then called beautiful; the feelings are irradiated with a joy in life, in existence, in everything; pictures are more beautiful, scenery more enchanting, all the feelings are strengthened, righteous anger blazes forth, infinite tenderness—every function and part of the body shares in the all-pervading influence. It is impossible to say where the emotional effect begins or ends. Those who have renounced love, and devoted their lives to religion or art, have still this powerful instinct acting as an impelling force, though it may take forms in which the direct connection is difficult to trace. It is perhaps the strongest of all the instincts, and in some subtle way is probably producing some effect whenever any of the other emotions are touched. The influence it exerts may be absolutely removed from any idea of sex, and of any conscious idea of the cause of the general feeling of pleasure. There is an exhilarating fascination in talking to, or even seeing, a beautiful woman, that is in a way not unlike the effect of a work of art.

There is, of course, a great deal of art work,

certainly in the primitive and early forms, that aims directly at exciting the sex feelings; but quite apart from this there is in many works of art something that does appeal to the intellectual and idealised side of love which heightens the general emotional effect, the source of which is not consciously recognised.

Another instinctive emotion, which in its later form plays a part in the æsthetic feelings, is that of sympathy. In its primitive form it is a reflex, automatic tendency to imitate, in its rudest form. According to Bain, it is a tendency to reproduce an attitude or bodily movement seen in another. We see this tendency illustrated most strongly in animals that are gregarious, such as a flock of sheep; we see it in ourselves in a crowd; in our tendency to yawn when seeing another do so; to laugh when others laugh; in our half-conscious movements when we watch a person jumping or doing something difficult. There is a story of a famous detective who tried to read the thoughts and feeling of those he was watching by closely imitating their movements; to what an extent an unconscious imitation of frown or a laugh, or more elaborate movements, does give the feeling which those movements usually accompany, must be within the experience of every one. In the early stages of life such imitative tendency was, of course, an absolute necessity; the young learnt in this way the acquired habits of its race; it also made possible the communication of information. Thus arose the power of feeling another person's emotions;

for even if the movements were not actually copied, the idea of the sensations that such movements would arouse would produce in the person looking on a similar if fainter emotion : an actor can rouse an audience to tremendous heights of emotion by his clever representation of an emotion which he can himself hardly help feeling as he goes through its usual manifestations.

The artist can make a spectator feel the emotion he wishes by suggesting the outward signs, and the person looking can often by careful introspection actually feel a tendency to copy by muscular adjustment the position and movement suggested. This form of sympathetic sharing with the pain or joy that we see is not primarily an intellectual appreciation that can be controlled ; many people will as far as possible avoid the spectacle of pain and suffering by which they cannot help being sympathetically affected ; so that in many cases they are impelled by the most selfish motives to try and alleviate the pain of others, in order to save themselves. When this sense becomes raised into the ideal regions, it becomes the motive of much of the noblest and most disinterested work of humanity, but, like all our instincts, was developed simply as a help to the individual and the race.

An instinct that plays a very large and important part as a motive for actions, and as determining pleasure and pain, is that which may be described as the assertion of self ; an instinct that is a direct outcome of the struggle for existence. When feeling at any particular moment is determined by the

idea of what promotes or hinders self-assertion (self-preservation and self-development) it will appear as a pleasurable feeling of power or an unpleasant sense of powerlessness, according to the degree with which we think we have, or have not, at our disposal sufficient means of self-assertion. Under self-assertion must be included not merely the maintenance of physical superiority, but mental freedom and power, the sense of making oneself felt by others.[1] We can easily see in this instinct the spur to a large amount of artistic effort, which illustrates the desire for self-realisation, the wish to impose their own personality on others; by its suggestion of power it is a valuable incentive to effective activity; when exaggerated, it leads to the intense egoism that is not infrequently found in certain types of artistic genius.

The creative instinct we deal with subsequently, and need not discuss further here, but there are many of the minor instincts that will be found adding their share to the total æsthetic effect. The desire for the approbation or applause of our fellow-men, that delightful proof of success in competition, direct outcome of the struggle for existence, is no mean spur to artistic effort. The sense of ownership, traceable easily to a valuable instinct, adds a strong and subtle charm to any work of art we may happen to possess, and most of us are apt to consider our geese swans. To some people their pleasure in art works is certainly strengthened by the feeling that only a few people are really capable of

[1] See H. Höffding's "Outlines of Psychology," p. 243 (1904).

appreciating those particular forms, and a slight background of satisfaction in their own cleverness adds something to the total enjoyment; others enjoy things, and really enjoy them, because every one says they are good. To many people a picture by a great artist, music by a great player, the poetry of a master, are really far more pleasing and impressive because they know of the fact. It is not uncommon to call this humbug, but it is really a perfectly natural result. When brought before a work of art or scenery, we, in this sophisticated age, instead of simply trusting to our feelings, and praising or abusing, are too careful of our reputations as connoisseurs of art, and we hold our emotional feelings in check until we have rationally and intellectually examined it; having decided that it complies with all the rules, and that it must be good, we give rein to our ecstasies, and the object then becomes more and more beautiful. If we are approaching the work of an acknowledged master our critical functions are in abeyance, and we come ready to let the emotions have full play unchecked.

Although a tinge of æsthetic feeling may very likely be always at work colouring and influencing our thoughts and judgments, it forms, as a rule, an indistinguishable part of our general attitude of mind, and only when this aspect becomes prominent do we realise an object as beautiful. The amount of such feeling, and the frequency of those moments in which it makes itself really obvious, vary, of course, according to the individual tem-

perament, within very wide limits, but except in those of an unusually emotional nature these moments of strong æsthetic feeling are not numerous. It is at such moments when they do occur that our standards of taste—at least those that we make ourselves, not those that we are merely taught—are formed; preferences and likings thus felt as distinct and massive emotions will remain, forming prejudices and standards by which other beauties will in future be judged. A period of life in which there has been a free play of the emotional faculties may be, for many, the time in which, as far as the fine arts and poetry are concerned, their stock of opinions and taste is formed for life; and, since they are probably never so deeply moved again, they remain convinced that no other and no later beauties can ever really compare with those, of which they still cherish the recollection, though these very likely only owe their supreme attraction to the especially propitious moment in which they were first seen.

It is not necessary to discuss in further detail all the varieties of different emotions and feelings that may play a part one time or another in the complex total of the pleasing frame of mind produced by some effect of beauty. Enough has been said to show that a great part of what is commonly described as the æsthetic emotion is made up of feelings that are common to all phases of life, with their natural basis in instincts that have, or had in their original form, a value in the struggle for existence. The feeling becomes æsthetic when, in

addition to the intellectual delight due to association, suggestion, &c., there is a diffuse feeling of general pleasure from the direct sensuous appeal to the eye or ear—a pleasure which we are able to consider as due to some quality of the object independent of ourselves, and detached from immediate advantage or utility; that is, it must not be dependent for its effect upon the *conscious* recognition of its practical utility.

Emotion, then, is simply a state of feeling rendered more complex by the addition of numerous ideational factors. We have already seen that in the earliest stage of life there is a simple motor response to stimulus, that this response becomes more elaborate; at some period the adjustment to external stimulus is accompanied by a feeling of pleasure and pain, *i.e.* consciousness, and that presumably this must be at a fairly early stage; then the reaction is guided by previous experience, *i.e.* memory, and this no doubt synchronises with—as it makes possible—mental action, not in the form of reasoning, but by utilising the successful results of trial and error in sense experience. We can easily suppose that the gradual differentiation of organs, with their specific sense feelings and consequent power of discrimination, was of great survival value, and would consequently tend by natural selection to be increased and strengthened. From the process we find that certain sense organs—eye and ear (chiefly)—respond with an accompaniment of sense feeling, pleasurable or the reverse, to colours simple and in combination, to harmony in sound, to rhythm;

and that in these things there is a choice, *i.e.* one is preferred as pleasant, that presumably this power of discrimination must have been advantageous in the conditions that surrounded life in an early stage. This feeling response is the cause of our æsthetic preferences, however complicated by other issues, and is the fundamental problem in the inquiry into the sense of beauty. How could such reactions have been of use to the primitive organisms? The reasons of our likes and dislikes in the other senses are obvious enough. The sense of taste grew from the need to discriminate between wholesome and unwholesome food—the animal or organism that could not distinguish such was naturally eliminated; a moderate degree of warmth, with its pleasant sensation, was obviously a useful thing for the organism to desire; a feeling of thirst impelled a search for the necessary liquid, instead of waiting to die for the want of it; and so on, in all our feelings, all our instinctive cravings and longings, we see clearly and easily how the all-impelling need of survival or perpetuation of species lies at the bottom of the pleasant or unpleasantness of the feelings aroused by an object.

The æsthetic pleasures are deeply ingrained and strongly felt; there is hardly any phase or part of life that is exempt from their influence, either in increasing our pleasure, or, on the other hand, detracting from our enjoyment; the delight of the eye and the charm of the ear are all pervasive. Can we, in the face of the obviously innate character of this instinctive reaction, accept the view

that it is of a secondary or derived source, and not an original factor in the struggle for existence?

We have already given reasons for the assertion that some explanation is required that will suggest in what directions such faculties could have been of direct utility even in the earliest stages of life, and that therefore we should be able to find in quite primitive organisms certain reactions or instinctive activities that by a process of differentiation and development could ultimately determine æsthetic feeling, as far as the simple sense response to harmonies of colour, line, and sound are concerned.

In the next chapter, therefore, the origin and growth of instincts is discussed, especially with regard to the earliest forms in which they show themselves, in order to make some suggestions upon this point.

CHAPTER V

THE ORIGIN OF INSTINCTIVE PREFERENCES

IN discussing sensations and the feelings that accompany them, allusion was made to the fact that the nature of the feeling, pleasurable or the reverse, or, if we prefer to call it so, the sense of like or dislike, arises ultimately from the relation between the organism and the object causing the stimulus. It now becomes necessary to examine in more detail the origin of this instinctive response, in order to see how the various reflex actions gradually arose, and how, as they became more complex, they developed into various instinctive series of actions, forming the mass of tendencies, desires, aversions, impulses, &c., which form the basis of the life of feeling and emotion. It has already been pointed out that we ought to find æsthetic taste, *i.e.* appreciation of colour, form, rhythm, arising from the same sort of primitive, perhaps preconscious, affinities for favourable reactions; just as those of taste, which are a criterion of suitable food.

The simplest living matter, a mass of protoplasm, has the quality generally described as irritability —that is to say, it is capable of responding to a stimulus by contraction, and thus can withdraw,

in whole or in part, from a hurtful object or move towards a suitable one. From this irritability or sensibility arise reflex actions. A reflex is a reaction in which certain co-ordinated movements follow directly upon an external stimulus; such as the involuntary closing of the eye at the approach of a foreign body. The most cursory examination of reflex actions at once brings into prominence the purposive and useful character of the great majority of them. The closing of the eye when an object approaches it, and the narrowing of the pupil in a strong light, are well adapted to preserve the delicate mechanism from harm. So well planned and co-ordinated are the movements, that it seems difficult to avoid the conclusion that they are guided by intelligence. This idea is, however, incompatible with the fact, to which attention has already been drawn, that the existence of the brain is not necessary for their due performance. It has been maintained that reflex actions, and, consequently, the more complicated instinctive performances, must be considered as the mechanical effects of acts of volition in previous generations. For any explanation of this kind it is necessary that there should be some place where the mechanical effects could be stored up, for the nerve-fibres must be regarded merely as conductors. Reflex actions have therefore been regarded as a fruitful basis for the analysis of the functions of the central nervous system, and great attention has been devoted to the underlying processes and mechanism. In spite of very divergent theories as to the actual method,

the ganglion cells have been widely accepted as the principal source and agent of the complicated movements in reflex action among the lower animals.

The assumption that the possession of a central nervous system was essential for the production of reflex action has been challenged by Professor Loeb, who was led to doubt the correctness of this theory by the fact that in the case of certain reactions, such as that to light, the process was identical in animals and plants; and as plants certainly do not have a central nervous system, it was obvious that such phenomena as, for example, the heliotropic movement towards light, had to be attributed to some conditions common both to plants and animals. Professor Loeb, by a series of ingenious experiments, showed that neither the ganglion cells nor a central nervous system were necessary for the production of reflex actions. Certain difficulties arose in the proof of this; for the well-known fact had to be met that in many cases destruction of the ganglion cells does interrupt the reflex process. But this objection is not sound, because in the higher animals the nervous reflex arc forms the only protoplasmic bridge between the sensory organs of the surface of the body and the muscles, so that in such cases, if the ganglion cells or the central nervous system be destroyed, the continuity of the protoplasmic conduction between the surface of the body and the muscles is interrupted, and a reflex is no longer possible. A further objection has been raised that

although these reflexes do occur in plants with no central nervous system, yet in animals the very existence of ganglion cells necessitates in them special reflex mechanism. It was therefore necessary to find out if there were not animals in which co-ordinated reflexes still continued to exist after the destruction of the central nervous system. Professor Loeb experimented upon certain worms and ascidians, in which, in addition to the transmission through the reflex arc, there is direct transmission of stimuli from the skin to the muscles, and succeeded in demonstrating in *Ciona intestinalis* that the complicated reflexes still continue after the removal of the central nervous system.[1] It is impossible here to give details, but the result of the various experiments brings out clearly the fact that irritability and conductibility are the only qualities essential to reflexes, and these are both common qualities of all protoplasm. But although the ganglion cells or the central nervous system are not the bearers of reflex mechanism, they are of immense help to the organism. Their value lies in the fact that they are quicker and more sensitive conductors than simple protoplasm. By means of these nerves and their qualities, an animal is better and more quickly able to adapt itself to changing conditions; this adaptability is particularly necessary for animals that are capable of moving from one place to another.

It is not uncommon to find instincts explained as

[1] "Comparative Physiology of the Brain," Professor Loeb, p. 5 (1900).

the result of a psychical process, while leaving reflex actions on the simpler plane of physiological reaction. The instincts appear so purposeful and so complicated that it seems as if nothing short of intelligence and experience could have produced them—that one generation must have discovered by skill or by chance the way of doing things, and that this is then perpetuated by practice and handed down by inheritance. This is the so-called "lapsed intelligence" theory of their origin. Instinct is, according to Wundt, inherited habit.

"We may, accordingly, explain the complex instincts as developed forms of originally simple impulses which have gradually differentiated more and more in the course of numberless generations, through the gradual accumulation of habits which have been acquired by individuals and then transmitted. Every single habitual act is to be regarded as a stage in this psychical development."[1]

This theory requires for its acceptance not only belief in the inheritability of acquired characteristics, but also in a perfectly incredible degree of intelligence and foresight in animals comparatively low in the scale. The *Sitaris muralis* beetle, for example, lays its eggs close to the nests of the *anthophora*, a hymenopterous insect that lays up a store of honey in a small excavated chamber in the ground, in which it places its egg. The young *sitaris*, as soon as it emerges from the egg, seizes hold of the first male *anthophora* that comes near enough, hanging to the hairs on its thorax; passes from him to the female; and, when the latter lays

[1] Wundt, "Principles of Psychology," p. 319 (1907).

her egg in the prepared chamber, drops exactly on to the egg, which floats on the honey. It must fall exactly at the right moment, as it would perish if it fell into the honey. It then eats the egg, after which it develops digestive powers enabling it to eat honey, which it could not assimilate before. It then occupies the cell, and turns finally into the perfect insect. As all these operations are only performed once in the life of each individual, there seems no possibility for the formation of habits. Similarly in the case of a fly, which lays its eggs on the right substance to provide food for its young, and upon that only, it cannot have formed the habit by noticing the success of the experiment, for no attention whatever is paid to the eggs after they are once deposited. It is inconceivable how any kind of intelligence could lead even to a comparatively simple action of this kind.

But, however the actions were originally determined, it seems very hard to understand how they can be inherited and carried on without some central structure of a mysterious and marvellous nature, and that this can only be located in some such form as the ganglion cells. If these are only to be taken as more efficient conductors of stimuli, what explanation is there left? Professor Loeb answers this question very ingeniously, pointing out how difficult it is to make a satisfactory theory of the mechanism of instincts, or explain their inheritance on the assumption of stored up memories.

Among the elements that go to make up these

complicated instincts are certain simple reactions of the whole organism, or tropisms (heliotropism, chemotropism, geotropism, stereotropism), which play a part of great importance. Their action depends upon the specific irritability of certain elements of the body-surface, and secondly upon the relations of symmetry of the body. When the elements at the surface of the body are symmetrical, they have the same degree and kind of irritability; it can further be easily shown by experiment that those near the oral pole (or the mouth and head) possess a higher degree of irritability or sensibility than those at the aboral pole. This will obviously result in an animal orienting itself towards a source of stimulation in such a way that the symmetrical points are stimulated equally. Thus the animal is led either to, or away from, the source of stimulus without any will of its own. All that the ganglion cells have to do is to conduct the stimulus. For the inheritance of these instinctive reactions, it is, then, only necessary that the egg should contain the substance for determining the different tropisms, *i.e.* particular sensibility to light, heliotropism; reaction to one particular chemical stimulus, chemotropism; and so on, as well as the conditions for producing bilateral symmetry.

For example, the right substance to feed the larva would set up a chemical action in the fly leading to a series of actions ending in the deposit of the eggs; only that substance would have the effect, and only when owing to the internal conditions the organs were ripe for egg deposition.

We might quite well use the expression that the fly likes the particular substance and chooses it, so that here we have a case of apparent selection and preference, which would be correctly described as unconscious chemical affinity: we may suppose something of the kind as the origin of our likes and dislikes.

It is not possible to draw any real distinction between reflexes and instincts, but in common language the word *reflex* is used when there action of a single part or organ of an animal is referred to, while *instinctive* is applied to the movement of the animal as a whole.

The question of spontaneous movements must be considered, *i.e.* those which are apparently determined by internal conditions. These can be divided into rhythmically spontaneous or automatic processes, such as respiration and the beating of the heart, and a periodic spontaneous movement. It has been proved beyond doubt that automatic activity can, in the case of respiratory movements, arise in the ganglion cells, and from this the conclusion has been drawn that all automatic movements are due to specific structures of the nervous centre. Recent investigations by Professor Loeb have, however, shown that this question is really one of the chemical condition of the tissue, and by changing these conditions the properties also alter.

"If in the muscles of the skeleton the Na ions be increased and the Ca ions reduced, the muscles are able to contract rhythmically like the heart. It is only the pre-

sence of Ca ions in the blood which prevent the muscles of our skeleton from beating rhythmically in our body."[1]

Another character noticed in automatic movements is their high degree of co-ordination, which seems to require a centre, as it were, of co-ordination to keep them all moving in the right order. Experiments on the lower animals show clearly enough that the co-ordination of automatic movements is caused by the fact that the element that beats most quickly forces the others to beat in its own rhythm.

The problem as to the exact moment in the process of development at which psychic or conscious processes appear has given rise to endless controversy. Are we to consider obvious purposefulness of action a proof of present or past psychic activity? Because an animal responds, under particular circumstances, very much as the observer would, judging from his reason, expect it to, are we to consider it necessarily conscious? Many instinctive reactions of a distinctly purposeful type occur in the vegetable kingdom, especially noticeable in the fly-catching plants and some of the climbers: shall we, then, attribute consciousness to them?

If we cannot say definitely at what moment consciousness is first present, we can at least point to the moment at which it first begins to be of any value to the organism; and in view of the extreme economy of natural process, it is not unreasonable to assume that it is not present until the time that it can be of advantage to its possessor.

As soon as an organism reaches a sufficient

[1] Professor Loeb, *op. cit.*, p. 10.

degree of development, a mechanism is produced by which a stimulus brings about not only the effects which its nature and the specific nature of the sensitive organ call for, but by which the effects of other previous stimuli have an effect in modification or adaptation of the present reaction—that is to say, when there is the possibility of memory, and with it the power of association. If an animal can feel a sensation, but has no memory of it, the fact of feeling it is not of the slightest value as regards conscious direction of future actions. All previous sensations are non-existent, and they can have no effect upon other actions of the organism. We may, therefore, with some plausibility infer that memory and consciousness arise together. If an animal, however low in the scale, can in the smallest degree be trained, if it can adapt its reaction to a stimulus by means of its experience, it possesses associative memory. We must make a careful distinction here, as it seems probable that effects of stimuli can, even in plants, be stored up and effect subsequent action. Professor Darwin[1] calls attention to an interesting example. The leaflets of the Scarlet-runner are more or less horizontal during the day and sink down at night, the change being due to the alternations of day and night. If the plant be kept in a dark room, it will continue for a time to make the same movements. We may well imagine that in some such power as this of the cells to store up, by some change

[1] Address to British Association, 1908.

in their physiological condition, and repeat subsequently a movement without the stimulus, lies the germ of what will afterwards become memory and consciousness.

The point as to exactly at what stage organisms show a power of adaptation and of learning by experience has given rise to some difference of opinion. For example, Professor Albrecht Bethe[1] maintains that psychical life begins with the vertebrates; that the invertebrates are endowed with no sensations, accumulate no experience, and therefore show no modification of action; that they are automata, reacting mechanically to stimuli which never pass the limen of sense perception. He goes on to describe some experiments upon ants as to the recognition of members of the nest, the conclusion come to being that each has its own "nest substance," a volatile chemical substance alike for all members of the nest, and produced by the individual insect. The reaction to "familiar" and "unfamiliar" nest substance is connate, not acquired. A similar inquiry into the mechanism of "homing" shows that ants leave upon their path a volatile chemical slot, which is polarised, *i.e.* differs according to the direction of the ant whether to or from the nest. The slot is "received" through the antennæ, and releases the "to" and "from" movements reflexly.

[1] "Durfen wir den Ameisen und Bienen psychische Qualitäten Zuschreiben?"—*Albrecht Bethe, Pflügers. Archiv. f. d. ges. Physiologie*, lxx. 1 and 2, 1898. The above is taken from a review in *Mind*, July 1898.

On the other hand, Professor H. S. Jennings[1] tries to prove that simple reactions and tropisms are not sufficient to account for the actions of even the unicellular organisms; that, on the contrary, they work by a system of trial and error; and that this leads upward, offering at every point opportunity for development, and showing even in unicellular organisms what must be considered the beginnings of intelligence, and of many other qualities found in higher animals. He describes one of his experiments upon Stentor, one of the Infusoria:—

"Stentor does not continue reacting strongly to a stimulus that is not injurious, but after a time, when such stimulus is repeated, it ceases to react, or reacts in some less pronounced way than at first. To an injurious stimulus, on the other hand, it does continue to react, but not throughout in the same manner. When such stimulus is repeated, Stentor tries various different ways of reacting to it. If the result of reacting by bending to one side is not successful, it tries reversing the ciliary current, then contracting into its tube, &c. This is clearly the method of trial and error passing into the method of intelligence, but the intelligence only lasts very short periods."

It is difficult to see in the above and similar experiments a real proof of consciousness or the use of intelligence; in the first place, it is difficult to be quite sure that the effect of fatigue in producing modification of subsequent reactions has been fully allowed for; even a piece of elastic

[1] Contribution to the Study of the Behaviour of the Lower Organisms, 1904.

ceases to produce exactly the same response after frequently repeated stretching; and also it is obvious that response to stimuli must vary if there is to be any sort of development; again, it is extremely difficult to insure that the successive stimuli are identical. It is not indeed difficult to find a parallel in the inorganic world—say, for example, a small log of wood caught in the vortex of a waterfall, by which it is being repeatedly drawn back into the centre; it looks as though it were trying to escape, it continually dives and reappears in different places; at last, owing to some slight and imperceptible change in the volume of water, it just manages to catch the outgoing current, and sails off in triumph down stream—an obvious case of trial and error. But we do not expect the log of wood to profit by the experience, and get away more quickly next time; so with Stentor, he must be shown to be able to profit by his experience. Professor Jennings, however, feels sure that the results are not due to motor fatigue, as in most cases he found the acclimatising process seemed to occur too rapidly to make fatigue of the motor apparatus probable. The most natural analogy to the phenomenon in our own experience is sensory adaptation, such as we find, for instance, in the fact that a moderate weight laid on the skin ceases after a time to be felt.[1] This would amount to the gradual disappearance of sensation in response to repeated stimulus, and we need not suppose this to be accompanied by any conscious psychical process.

[1] "The Animal Mind." M. F. Washburn (1908).

By careful experiment to see whether an organism is affected by previous or almost simultaneous stimuli, as the interval may in the early stages be presumed to be very short, it can be shown[1] that Infusoria, Cœlenterates, and worms do not possess a trace of associative memory, though certain insects, such as wasps[2] undoubtedly do have the power of recalling and making use of previous experience. If, then, we can regard consciousness merely as a name for phenomena due to the presence of associative memory, we have a criterion which settles, or makes it possible to settle, the metaphysical problem as to whether all matter, or at least the whole animal kingdom, possesses consciousness. At all events, it settles it as a practical question.

There is ample evidence that only certain species of animals possess associative memory, and therefore consciousness, and that it appears in them only after reaching a certain degree in their advance; for associative memory depends upon mechanical arrangements that are only present after a certain stage of development has been reached. This view is strongly supported by the fact that certain vertebrates lose all power of associative memory after the destruction of the cerebral hemispheres, and thus are deeply affected in all their actions by such an operation, while those vertebrates in which associative memory does not exist, or is only slightly developed, such as the shark or frog, do not differ

[1] Professor Loeb, *op. cit.*, p. 13.

[2] "Wasps, Social and Solitary." Peckham (1905).

in their behaviour, or do so very slightly, after losing the cerebral hemispheres.

Professor Loeb suggests that the fact that only certain animals possess the necessary mechanical arrangements for associative memory, and therefore for metaphysical consciousness, is not stranger than the fact that only certain animals possess the mechanical arrangements for uniting the rays from a luminous point in one point on the retina, *i.e.* ability to see colour and distinguish the position and relation of objects.

As has been already pointed out, we are in the habit of calling an action instinctive when the whole animal responds to a stimulus, while we call it a reflex action when one organ or a group of organs respond. This distinction is, of course, purely conventional. It is true that in a majority of cases the actions which we call instinctive, although unconscious, are adapted to an end, often a distant one. A fly acts instinctively in depositing its eggs on a suitable material; we can regard this as a series of actions due to purely chemical stimulus; the particular object that is suitable as food sets up a chemical change that results in the set of actions ending in the deposit of eggs. But utility or purpose is not sufficient to distinguish instinctive from reflex actions, for many simple reflex actions are obviously useful—the action of the eye for instance—while some instinctive actions, such as the flying of a moth into a flame, can hardly be said to be purposefully useful. In many cases a complicated instinct, such as that of the

Sitaris beetle mentioned above, is merely a chain of comparatively simple reflexes, each one of which is the stimulus which calls forth the next.

To explain the cause of the moth flying into the flame, we have only to suppose that the moth is positively heliotropic, a quality that is common, of course, in plants, which, according to common language, love, or grow, towards the light. If we suppose the stem of such a plant placed near a window, the light will strike it from one side; a contraction of protoplasm on that side follows, and a greater resistance to increase is offered, the result of which is that the stem becomes concave on the side next the light; as soon as the bending has gone a sufficient distance, the stem comes into a straight line with the rays of light, the stimulus is then even on all sides, and the growing stem continues in this line. In the same way, if a moth be struck by the rays of a light from any direction, the increased activity of the muscles on one side turns the head towards the light, and as soon as the moth becomes directly in a straight line towards the source of light the stimulation is equal on both sides, and there is no reason why the animal should turn more to one side than the other; thus it is led to the light, and animals that move quickly, such as moths, get into the flame before the heat of the flame has time to stop them. Slower animals are checked, and walk or fly slowly about the flame. (The heliotropism, no doubt in the usual course, takes the moth straight to the white flower, in which it will find its food.) Thus, given the

structure and peculiar irritability of the peripheral organs, nothing more is required than the chemical influence of light. That is to say that the so-called instinct is really no more necessary in the case of the moth than in the case of the heliotropic plants. As plants do not possess a central nervous system, there is no reason to suppose that similar action in animals are in any way more dependent upon a specific structure of the central nervous system. The natural inference is that they are determined by properties common both to animals and plants, such properties being :—First, the possession of a substance on their surface which, undergoing a chemical change when subjected to the influence of light, produces changes of tension in the contractile tissue; secondly, they must possess symmetry of form, with its corresponding distribution of irritability. These two completely determine the heliotropic reaction. No doubt it may be shown that, in certain cases, by the destruction of the central nervous system this reaction ceases; but this is due to the fact that the connection between the skin or the eyes, which are affected by the light and the muscles, is interrupted.

A large number of the lower animals, especially among the insects, worms, &c., have the habit of crawling into cracks and crevices. This is generally interpreted as an instinct which thus drives them to seek safety by hiding, and so escaping the notice of their pursuers. That it does have the effect of preserving them, and that the instinct was therefore developed and stereotyped, is obvious

enough; but the theory that it is done by an instinct of self-concealment, with a special centre to guide them, is clearly untenable in view of the following ingenious experiments by Professor Loeb.[1] He took a number of Amphipyra, a peculiar species of butterfly that is a fast runner, and, if allowed to go, runs about until it finds a corner or a crack into which it can creep. These were placed in a box, half of which was covered with glass, the other with an opaque sheet; the bottom of the box was covered with small glass plates resting on glass blocks, raised just enough to allow an Amphipyra to creep beneath. The Amphipyra at once collected under the little glass plates, where they were in close contact with the solid bodies on every side, not, as might be expected, in the dark corner, but in the fully-lighted part, and even when exposed to the direct sunlight, although their hiding places were quite transparent; showing the same alacrity in getting into the small holes when the whole box was quite dark, in all cases they were only satisfied, and remained at rest, when they could feel the pressure or close contact of some solid body all round, but quite unconcerned that the shelter was perfectly transparent and did not hide them in any way — self-concealment had clearly nothing to do with it. The same phenomena exactly occurred in the case of certain sea worms; for example, if an equal number of Nereis and small glass tubes are placed in a dish of sea water, in a short time a Nereis will be found in

[1] *Op. cit.*, p. 184.

every tube, this occurring even in direct sunlight, which actually kills the worms in the transparent tubes. Professor Loeb explains it in this way, as another example of a simple tropism :—

"Many plants and animals are forced to orient their bodies in a certain way toward solid bodies with which they come in contact. I have given this kind of irritability the name of stereotropism. Like the positive and negative heliotropism and geotropism, there is also a positive and negative stereotropism, and there are also stereotropic curvations. I have found, for instance, that when a Tubularia is brought in contact with a solid body, the polyp and the growing tip bend away from the body, while the stolon sticks to it. The polyp is negatively stereotropic, and the stolon positively stereotropic. Stereotropism plays a very important part in the processes of pairing and the formation of organs. The tendency of many animals to creep into cracks and crevices has nothing to do with self-concealment, but only the necessity of bringing the body on every side in contact with solid bodies."[1]

It is obvious that in natural condition it would be quite sufficient to feel something all round in order to provide concealment from observation and protection from light, the chance of finding transparent bodies being too remote to cause any important effect in the development of this life-preserving instinct; similarly, in the case of the moth, lamps and flames not being found in nature, the instinct for avoiding this difficulty was not required. It is again interesting to note the economy of nature, the way in which these tropisms are exactly fitted to the particular environment, and

[1] "The Comparative Physiology of the Brain" (1905), p. 184.

only for that, the results being accomplished by the smallest possible means.

This reaction to solid bodies or stereotropism, instead of a central instinct of self-concealment, has been further confirmed by experiments on worms that have been cut into pieces.

A most interesting case of a preservative instinct is shown in the case of some of the caterpillars. The larvæ of *Porthesia chrysorrhea* come out of their eggs in the autumn, and pass the winter in small colonies in a nest on trees or shrubs. In the spring, as soon as the sun is warm, they come out and crawl *up* the branches of the tree or shrubs to the tip where the first buds are just appearing; when they have eaten them they then crawl down to the new buds and leaves, which by that time will be appearing in large numbers—to crawl *down* at first would mean starvation.

This seems at first to offer a difficulty why, if these caterpillars were positively heliotropic, and so tended to go up to the light and thus reach the buds, should they not be kept there, and so starve? Professor Loeb made careful experiments upon them, and found that the larvæ when first awakened from their winter sleep by the warmth of the sun are positively heliotropic, but only until they have taken food. The positive heliotropism must take them upwards, since in the diffused light out of doors the horizontal rays will neutralise each other, leaving the vertical ones to effect their full influence. As soon as the caterpillars have eaten food, the chemical changes set up result in a complete

loss of positive heliotropism. Here again is apparent the extreme simplicity that underlies what at first sight seems a complicated instinct.

With the appearance of associative memory we find the same instinctive reactions, but they are modified by previous experience and performed with more ease and accuracy from practice, the action becoming more and more complicated as intelligence slowly develops, and is able more and more to modify and adapt the instinctive impulses —until in man we are left with a rich store, not of a series of instinctive actions, but of tendencies, desires, cravings, &c., which are the literal counterpart of the simple tropisms. Man by the use of reasoning power is able to conceive the end in view, and uses his intelligence to gratify his likes and dislikes, or to produce the most useful method of meeting a situation or difficulty.

The reason for which this question of primitive reflex action and the central nervous system has been treated in some detail should now be made apparent.

From the foregoing statement it is abundantly clear that, from the earliest protoplasmic cell, living matter has the quality of sensibility, or we may describe it, a tendency to, or away from, any source of stimulation according to the object, *i.e.* whether it is suitable or the reverse. It is in this choice of the suitable, as opposed to the unsuitable, that progress lies, the struggle for existence being always at work picking out the slight variations in structure, or chemical constituency, and so on, that are of use to the organism. Thus we see that one of

the earliest of all qualities to be developed is that of taste, the selection of suitable food, suitable position, &c.; this would be, in the early stages, probably devoid of consciousness, but at a certain point of development we have seen that consciousness appears, and presumably with it the sensation or feeling of pleasure or of discomfort. We have already seen that pleasure and pain are to be considered as symptoms and not causes. We must therefore accept the conclusion that like and dislike are not originally determined by pleasure or the reverse, but that our likes and dislikes are the present forms of originally necessary reactions formed by physico-chemical reflexes which drew the organism towards the wholesome or suitable, or away from the dangerous or unsuitable.

Now what is the bearing of this upon æsthetic sensibility? We have already come to the conclusion that, however far we analyse our feelings for beautiful things, and whatever explanations we can offer, we are finally brought down to the fact that at the bottom as a basis there are our simple likes and dislikes. Even if we are satisfied with an explanation that traces the rise of art and the æsthetic activity to social use and a secondary utility developed at a comparatively late stage in the struggle for existence, we are still left with the difficulty of accounting for the fact that we have an innate sensuous pleasure in certain combinations of colour, sound, or form; in rhythm, balance, symmetry, and so on, which is previous to, and independent of, intellectual appreciation. Obviously

these qualities must have been, in the early stages at which the basis of our likes and dislikes were developed, in the position of determining a tendency towards (like) or appetition for the suitable, favourable or necessary, and away from (dislike) the unsuitable or dangerous.

Of all the factors that determined survival in the early stages, suitability to environment was the most important, and the greater part of the energies of the organism were devoted to finding a suitable surrounding, or of adapting itself to that in which it was placed. It would often happen that the conditions, temperature, direct sunlight, degree of dampness, and so on, or the environment itself, would change somewhat gradually, so that the organism that varied in the direction of a more delicate sensibility or a quicker reaction would be at an advantage in getting the first intimation of an unfavourable change ; the same sensibility would, if the animals were moving, give the earlier indication of, or detect from a greater distance, suitable conditions, *i.e.* conditions which were so to speak in harmony with the organism. The animal with the more delicate sense would begin to make whatever movements or exertions it was capable of, directly there was some adverse change in its surroundings, while the slower would simply prove the alteration for the worse by dying.

Again, to all the animal kingdom, from the unicellular amœba to early man, the familiar is the safe, and the unknown or unfamiliar dangerous. An organism developed in a certain environment

is inevitably provided with certain tendencies or instincts, and with the necessary structure to suit the particular conditions; obviously then it is of immense value to have some means by which a preconscious animal, with no memory or intelligence by which to recognise the right environment, would, so to speak, feel its surroundings, which it would do probably by simply coming to, and remaining at rest in, the habitual and therefore suitable environment.

The same line of reasoning applies to external objects, and, as the animal rising in the scale of development increases in activity and power of movement, becomes of still more importance; the known, the easily recognised, is safe, while generally speaking the unknown or strange must be regarded as dangerous, or at least treated with suspicion. Consequently it is easy to see that at a very early stage in the development of feeling and consciousness there would be a sense of pleasure in the recognition of the familiar, and of discomfort in the unknown; for it might possibly be dangerous, and was pretty sure to be unsuitable. The pleasure in simple recognition is very great, and persists with a strength that is often apt to be overlooked. To a child, a savage, or even the ordinary person, to recognise, to be able to name, and thereby to have at least the feeling of understanding, is a great pleasure.

In the last chapter we have dealt with the more complicated aspect of this sense, as well as the instinctive feeling of curiosity which had to be developed as a necessary corrective, since simple avoidance and shrinking from the new or strange

would make progress impossible. In the earliest stage, when the organism was small and defenceless, and but slightly developed as regards adaptability, we can well understand that the impulse to seek merely the environment and objects to which it was accustomed, and therefore adapted, was advisedly the stronger.

As we have already shown, symmetrical development is necessary for any growing or moving thing; inanimate objects are subject to the continual pressure of the force of gravity which, to a large extent, determines their form and arrangement, involving a certain proportion of part to part which may be shortly described as balance. Thus the want of symmetry or balance or proportion, being abnormal and strange, would at once strike a note of alarm obvious and direct to the unreasoning animal dependent for its life upon instant recognition of the unusual; surviving in educated man and his artificial surroundings only perhaps in a vague dislike; though if it occur in the case of some very familiar object—such, for example, as a man with one ear much larger than the other—a considerable feeling of disgust might be aroused.

Thus it is easy to see that there would be a desire for, or movement towards, suitable environment, and the conditions to which the particular organism was suited, with which it would be in harmonious relationship; colour, which was protective to it; suitable food, and so on. As soon as consciousness and the feeling of pleasure was developed, we may fairly assume that such conditions

would give rise to a feeling of pleasure, which need only be felt at the moment of attainment; since pleasure being a sign that things are as they should be, no further activity would be required until some cause such as hunger, too strong a light, a change of temperature, &c., caused a feeling of discomfort, and so an incentive to further activity.

In order to see how this primitive instinctive need in the organism for its proper and suitable environment could give rise to the faculty of appreciating certain objects and sounds with that feeling of pleasure that induces us to call them beautiful, we must completely disabuse our minds of the idea of abstract and immutable laws of harmony, or composition, or combinations of colours, the idea of the existence of which may often make us wonder why it happens that a flower or a bird comes to be beautiful, or nature so right æsthetically; it must be stated the other way—they are beautiful because they are natural, and our organs that perceive them have been evolved by one long effort to live in harmony with nature, and we are therefore bound to perceive harmony as suitable, pleasing, beautiful. We do not like a thing because it is beautiful; it is beautiful because we like it. The law of the universe is balance, action and reaction, "systole and diastole." An organism developing in it, and moulded by its conditions, must necessarily for itself be so formed as to correspond to this law, however concealed. Organisms replying to chemical stimulus so slight as to evade the utmost subtlety of our means of research, would be no less sensitive

to physical stimulus, if indeed there is any essential difference. The eye would by the force of circumstances be so evolved as to respond to balance and proportion, in colour, line, or movement; the ear to feel the law of balance, or harmony in sound; and thus, as satisfactory and pleasing, all the parts and organs would feel and respond to the rhythm or periodic law common to all living and moving things; while disharmonies would as such cause discomfort because they would be contrary to all the conditions in which, and to meet which, our organs were evolved—since, as we have already pointed out, the particular form of our organs of perception is due simply to the particular nature of the environment.

It does not, then, seem an unfair assumption to assert that the instinctive pleasure in harmony is directly sprung from the impelling need for suitability to environment, and is of the utmost advantage to the organism, as giving information whether it was in harmony with its immediate surroundings at the earliest possible moment, instead of having to prove it by merely living or dying. If now we take this blind craving, which we may fairly call an instinct for conformity with nature, or more shortly, for harmony, using the word in its widest possible sense, we see it expressed at first in unconscious restlessness under unsuitable conditions, driving the organism to unceasing effort, only relaxed if, and when, harmonious adjustment is again attained, when its normal activities can again be freely exercised; we see it in attempts to make or pro-

vide suitable surroundings by instinctive activities devoted to modifying or altering the environment in the direction of making it more suitable; then we see it reaching the stage in which mind and intellect come to the assistance in the efforts to gratify instinctive cravings, definitely conceiving the aim for which search and effort is to be made. The desire for conformity with environment will not only impel us to make our surroundings suitable and beautiful, *i.e.* pleasing, so, that all our perceptions may, as far as possible, be harmonious, but the intellectual side will, as always, be developed from the physical, and will also require satisfaction, demanding a life that shall be spiritually and mentally in accord with the meaning of the universe. For perceiving a law and order in the physical world, it is natural to conclude by analogy that there must also be an order and meaning in the moral world. The brain can only conceive ideas based upon felt experiences, but can carry these into an ideal world unhampered by time or space, or refractory material, as, for example, the abstract laws and ideal conditions of mathematics, which are based upon observed physical phenomena. So in art, the mind, realising the felt beauty of simple objects, and the power of rhythm, can combine portions of the external world of colour, form, or sound, in new and novel combinations, producing new and far more intense sensations of pleasure, but always guided and limited—in form by the types that have been with us always, and in all directions by the ever present, felt, need for harmony.

CHAPTER VI

COLOUR AND RHYTHM

AT the close of the last chapter, we tried to show how the feelings of taste are the direct outcome of the need for adaptation to surroundings. All the various reactions, necessary adjustments, and activities, with the desires and cravings, that unperformed instinctive tendencies naturally produce, we resumed shortly under the expression of an instinct for conformity with environment. Such an instinct would not be represented by any specific action, but it would describe all those innumerable instinctive activities and faculties that are particularly concerned in obtaining and preserving a harmonious and satisfactory interaction between the organism and its environment. It was further suggested that this instinct lies at the base of the great majority of our simpler innate physical likes and dislikes, more particularly in the appreciation of harmony, balance, rhythm, and colour. It must be obvious that the application of the principle to any particular like or dislike may be beyond even conjecture, so complicated become the early instincts among all the baffling impulses of life at the present time.

Another point that must not be lost sight of is,

that many of the complex factors that go to make up a sense of enjoyment are more or less subconscious, and we are only aware of them by the total vague feeling of pleasure. For example, we may go into a beautiful garden, and our sum total of pleasant feeling be contributed to by a scent too faint to be consciously noticed until the attention is actually turned to it. We may find ourselves unexpectedly enjoying something, or finding an experience disagreeable, and quite unable to attach the feeling to any particular cause. We must also be on our guard against jumping to any conclusion as to the exact methods in which some particular instinct might or might not have been useful; for under a different environment an instinct, useful in its proper place, may be actually harmful, as, for example, the cases quoted above of the moth and the candle, or the Nereis in the glass tube. We might easily conclude that the Nereis, which dies in direct sunlight, and the Amphipyra butterfly, had an instinctive desire for the dark and for a hiding-place, whereas experiment shows that they do procure for themselves the necessary concealment and absence of light, but only have a simple instinct to get a solid body on each side.

The choice of colour is one that offers obvious difficulties. It is easy enough to understand, given the eye with its present structure, that certain combinations of colour are pleasing because they give each set of cones or rods rest and stimulation in turn; and that part of the pleasure is due to the

simple use of an organ. Grant Allen, in his "Physiological Æsthetics," explained the feeling for colour on that ground (and in a similar way that of auditory harmony and rhythm), but this does not give an explanation as to why they were so developed as to have those qualities; though it is quite clear that structure is the direct response to the needs for suiting the organism to deal more effectively with its environment, and that therefore there should be a reason for the feeling of pleasure.

It has been argued that differentiation of colour is a lately acquired sense, and that because savage languages, and even the early (Homeric) Greeks, had only names for a few colours, therefore they were only able to perceive a few. This evidence is not very convincing; they may have only been affected by certain colours strongly enough to make them invent names for them.

Animals are certainly sensitive to a fairly wide range of colour.

The colour of flowers has often been attributed to their necessity for attracting insects, and that in this way they have developed their wide variation. This has been disputed, and experiments made, which cannot, however, be considered to be convincing, to show that it is the scent which is the only real attraction to insects.[1] It has been clearly shown by Forel[2] that bees not only have a fairly keen sense of colour, but a strong tendency to

[1] F. Plateau, in *Revue Psychologique*, 1907.
[2] "The Senses of Insects."

come back to objects of the same colour as that upon which they have found food. The flowers that attract night insects, such as moths, do have a strong scent as a rule; but the flowers are almost invariably white, so that they shall be as conspicuous as possible in the dusk. It is, of course, conceivable that the colour of flowers may partly be due to chemical needs, *i.e.* the admission or exclusion of certain rays. Wasps have been found by Mr. Peckham[1] to have the capacity of distinguishing colour; he placed a large coloured card with a big hole in the centre over the entrance to a nest. It was found that the wasps, after having, in a few days, become accustomed to its presence in one colour, were confused by an exactly similar card of a different colour.

Birds, of course, have a considerably developed colour sense, and there is in this connection the very interesting and highly suggestive phenomenon of the courting plumage. The antics and performances of the male bird are obviously undertaken to display the variety and brightness of his coloured feathers, &c., to the best advantage; this display has an effect of a highly emotional nature. Here we find, in a form in which the objective results are possible of observation, the fact upon which so much stress has been laid, that colour and form, combined with movement, can arouse an emotion apart from any intellectual factor. The growth of the secondary sexual characteristics, such as bright feathers, appendages, &c., has for a long

[1] "Wasps, Social and Solitary."

time been considered to be the result of choice by the female of the brightest, strongest, and best-looking male. Of recent years, however, there has been a strong tendency to discredit the possibility of choice in the usual sense of the word, as involving a degree of reasoning power which we have no ground for attributing to animals. The point requires careful consideration.

It has been assumed, with some plausibility, that the quality of coyness or reluctance in the female is of advantage to the species in helping to avoid crosses, and in preventing the female mating at once with the first male that she happened to meet, that was at all near her own species. Whether this is the true explanation or not, the fact of instinctive reluctance in the female is a well-established fact in nearly all animals. To balance this it becomes necessary for the male to develop two qualities—one, a strong indication that he is of the right species, and secondly, some means of raising the emotional side of the female to a sufficient pitch of excitement to overcome the "reluctance" instinct. If several males are trying to attract the notice of the female, she will eventually mate with one, not because she selects him as the most beautiful, but because he alone was able, or at any rate more quickly able, to arouse the necessary emotion, by having some brilliant colour or a more striking series of antics, or in some other way, thus arousing a tendency towards himself as unconscious as that of the bee drawn first to the most sweetly smelling flower. This may sound

merely an elaborate and roundabout way of expressing choice, but there is really a complete difference. By choice we mean a deliberate survey of the relative advantages or differences of a number of things, and a recognition of the balance in favour of one. A cold unemotional man may choose a wife from her social position, manners, appearance, money, and so on, comparing and selecting; the man of a rich emotional nature suddenly finds one woman stand out for him above all others with a flush of feeling that makes the whole world a different place; he may, if reasoned with, allow that she is not really superior to all other women, but for him she is the only woman in the world. To call that choice is to deny the richest source of our pleasure in life. We can always notice that when we really come to prefer something by impulsion, by some sudden warmth of feeling, that we are on a different plane from the intellectual balance of pros and cons; though to say how far conclusions that seem to have been intellectually balanced are really free from instinctive tendency is an impossible task.

We need not labour the point: we see in the case of certain birds that bright colours, &c., have a high emotional power, connected with the most emotional period, *i.e.* the courting and mating; in some cases they are lost immediately after this, to be renewed each year; those female who sit in nests in open places generally have for protection a dull inconspicuous appearance.

If we knew more about the type of animal that

was the prototype of man, we might hazard more fruitful guesses at the origin of the emotional effect of colour; but if it can be so developed in birds and certain animals, we need at all events see no difficulty in agreeing to the fact in man. But it should be emphasised that unless the colours and rhythmical movements had in themselves an emotive effect, there would have been no starting point in their development as a means of arousing emotional excitement, though, no doubt, as soon as the connection with the breeding season had been established, there would be a strong additional stimulus by association.

Given the power of detecting different colours, training will, as in the case of all the senses, greatly increase the power of reaction, and make it possible to appreciate finer and finer shades of difference.

It is, of course, easy to see that the advantage conferred on an animal by the higher power of discrimination that the colour sense would give is of the highest survival value; we can further see that, in an organ subject to such continual stimulation as the eye, it would be necessary that the commonest colour would have to be as far as possible that of least stimulation. This is well borne out by the fact that green or a light neutral tint of brown are the most restful; as these are obviously the most prevalent, the eye would then note most strongly the widest variation from these.

In their early stages of development we must consider the eye, the nose, the ear, the tongue, as

simply means of discriminating the suitable from the unsuitable, of warning or providing an impulse towards something. At a certain period consciousness of pleasure, or the reverse, began to accompany the tendency, and this pleasure itself acted as an inducement to repeat such actions; the performance of function by an organ in a fit state of nutrition being in itself an action accompanied by a pleasurable feeling. In all such cases, however, we must never lose sight of the fact, that performance of function, to be pleasing, implies a stage at which it was vitally necessary for the animal to develop the structure and the function. In the case of taste, we see an organ which produces a large degree of sensuous pleasure which in a perfectly healthy condition may be said to react most pleasurably to the substances most suitable to the body, and in sickness is a rough guide as to what to avoid and take. It is impossible for us at this date to trace the steps and say by what substances this taste was formed, but the cause is obvious. Now in the case of taste in colour it may fairly be concluded that an analogous course gave rise to preference here. Restful colours would be pleasant after stimulation; bright contrasted colours would be the first upon which the developing organ would be able to seize, and would always provide an easier task in recognition. Harmonious colours can be explained more or less satisfactorily by Hering's ingenious hypothesis, by which in turn each set of rods and cones rest and come into play. We can easily imagine that individual preference

for different colours would arise by slight variations in the minute structure of the eye. To explain, or even conjecture, why we have an emotional feeling for particular colours, apart from any associative ideas, is perhaps at this date an impossible task; although, if for many generations it had been necessary for man and his prototype to seek some special plant, or animal, or certain type of surrounding, it is conceivable that the colour of this might become the one most easily and quickly reacted to; but any such explanations lead to somewhat futile guessing.

In the case of all the senses, artificial means can be, and have been, freely devised, whereby the pleasurable sensations can be greatly increased. That the organs of sensation should have this quality of being trained arises naturally in the process of development, as soon as, with the growth of intellectual power, instinctive action began to be supplemented by an increased faculty for adaptability. The possibility of increasing and improving the sensitiveness of particular organs would naturally be of great value, and is a necessary basis for any kind of training or improvement by practice. The different members of a race would not all require the same particular organ to be developed, and thus there would arise in the struggle for existence, not so much an actual structural alteration or improvement, but a greater and wider power of adaptability, allowing now one, now another, organ to be trained to a high degree of sensitiveness, and with this would naturally go

an increased sensibility, with a keener feeling of pleasure or the reverse.

The strong power that rhythm has in arousing and intensifying feelings has been referred to occasionally, and requires further consideration, as it has an important and far-reaching influence in questions of æsthetic enjoyment.

In the first place there is the simple mechanical effect of rhythm shown in the remarkable effects that can be produced by very small forces acting at the right moment. This is within the experience of any one who has used an ordinary swing; by oscillating a heavy body, and applying a small force at recurring intervals, properly timed, a continually increasing effect is produced. It was said by an eminent engineer of one of the large suspension bridges, that a boy could knock it down with a peashooter by producing a slow but ever increasing oscillation, provided that he could time his shots properly, and continue long enough.

When we come to organic life we find rhythmic and periodic movement all pervasive. Without repetition, life would not be possible. In all organic function a rhythmic repetition is found. All nerve process, whatever its nature may be, is carried on in pulsating beats or oscillation, in inspiration and expiration, in the circulation of the blood, in sleeping and waking; life itself consists in an alternation between absorption and waste of matter. In fact, it seems to be a general law of nature that all movement and all change is periodic or rhythmical. It is not necessary for a rhythmical

phenomenon to have a rhythmical cause, for constant conditions can lead to rhythmical effects. If a small stream of water flows into a pipette it will pass out rhythmically in drops. Professor Loeb[1] describes an ingenious experiment devised by Quincke, by which it is easy to produce and show rhythmical contractions of air bubbles under water, produced by a perfectly even and constant stream of air. Whenever a body moving with a constant degree of force gradually acquires sufficient head or momentum to overcome a constant resistance, and then after discharge again begins to gather energy for another discharge, the result will show a rhythmical effect. It is easy, by watching carefully, to notice the ebb and flow of an apparently smooth-running river: the waves of the sea increase in size in regularly recurring periods up to a maximum; witness the common saying that the seventh wave is always the largest.

In the case of the nervous system, where a period of recuperation is necessary after every discharge of nervous energy, the phenomenon is, if anything, still more marked, and applies to every part and process of physiological and psychical activity. All nervous effort is carried on in a series of waves; the attention has to be brought back and back to the subject upon which concentration is desired; change or movement is necessary to cause sensation, and is one of the essential conditions of consciousness. The tendency to turn any recurring sounds or movements into a rhythmical series is

[1] "Comparative Psychology of the Brain" (1900).

well nigh irresistible; the ticking of a clock, if the attention be directed upon it, is inevitably divided into certain beats, the rattle of a railway train is organised into a rhythmical swing. There is no doubt that the pleasure taken in the repetition of anything at regular intervals is due to the fact the nerves after discharge require a time for recovery, shorter or longer according to the strength of the stimulus, and that there is a pleasure in a stimulus occurring at the expected moment, when the nerve is in just the right state to function.

There is a very strong tendency to adapt the rhythmical movements of the muscles and nerves so as to coincide or harmonise with any other rhythmical movement or sound that may be perceived. If we turn a wheel with one hand without thinking of the manner or velocity of the rotation, and at the same time repeat a poem to ourselves without moving the lips, the number of the revolutions shows a simple numerical relation to the number of beats in the verse. If the wheel is intentionally turned more quickly, and the recitation made slower, the number of revolutions will be found to be a multiple of the beats; if the process is reversed, and the wheel turned slowly, the number of beats becomes a multiple of the number of revolutions. If we assume that, in thinking the poem, the respiratory innervations which follow the rhythm can be represented as harmonic curves, and that the same holds good for the innervations that are responsible for the turning of the wheel, it follows that harmonic processes of innervation,

occurring simultaneously, affect each other in such a way that the periods of both processes are either equal or in the ratio of simple multiples of each other. It requires great determination to withstand this law.

The same is true not only for two or more simultaneous processes of motor innervation, but also for simultaneous sensory processes and motor innervations, as is proved by dancing. The rhythm of the music and the period of the motor innervations of the legs and body coincide.[1]

It becomes, in view of these facts, very easy to see the immense influence that rhythmical repetition would have upon our sense organs and feelings of pleasure in keeping to a rhythm once established, and in discomfort in anything that interfered with it. The formative and decorative arts may, by compelling our eye to follow a regular arrangement of lines and figures, transmit an emotional feeling by the mediation of rhythm. We look with pleasure at the repetition of a pattern, although the detail that is repeated may, taken by itself, be neither beautiful nor interesting; but the recurring stimulation at regular, and so expected, periods causes a feeling of pleasure, due simply to the natural enjoyment of functioning at the right moment.

"To this quality of mere complexity of surface, pattern adds by its regularity the power of compelling the eye and breath to move at an even and unbroken pace. Even the simplest, therefore, of the patterns ever used have a power

[1] Professor Loeb, *op. cit.*, p. 295.

akin to that of march music, for they compel our organism to a regular rhythmical mode of being."[1]

In the case of sound the effect is still more marked and striking. Dr. Wallaschek has shown conclusively the origin of primitive music directly from rhythm, clearly proving the untenability of the theory that traces it from the modulations of the voice used for speaking, and it accords well with this that it should have so wonderfully strong an emotional effect, the origin of which it would be hard to see were it only a development of speech:—

"We have been told, until we are tired of hearing it, that the one essential in primitive music was rhythm, melody being of secondary importance. . . . Rhythm, taken in a general sense to include 'keeping in time' in its simplest form, as well as in the most skilfully elaborated fugues of modern composers, is the essence in music. . . . Completely to understand a musical work ceases to be difficult when once its rhythmical arrangement is mastered; and it is through rhythmical performance and rhythmical susceptibility that musical effects are produced and perceived."

Again he points out that

"Men do not come to music by way of tones, but they come to tones and tunes by way of the rhythmical impulse."

The power of a strong rhythm in imposing its period or time, and compelling others into unison with it, is, of course, of immense utility in enabling bodies of men to work together or to act in concert. This is made use of largely in all kinds of manual labour requiring concerted action, and,

[1] Lee and Thompson, *Contemporary Review*, 1897.

of course, most particularly in military operations, whenever it is necessary to deal with large bodies of men. It is significant of this that music is, among primitive races, most developed among the most warlike tribes. Any emotional excitement is contagious, and when it can express itself rhythmically the effect in arousing a similar impulse in others is increased to a wonderful degree. Popular legend has always attributed to the tarantella an irresistible power of forcing the spectator, however unwilling, to join in the mad dance. In races that are easily excitable, a rhythmical sequence of sounds can have a maddening effect. Burton relates of a race in West Africa, that the mere beating of a tom-tom not only raised them to a high pitch of excitement, but that it made some of the younger members actually ill, so strong was the effect.

The elementary conditions of the phenomenon of auditory rhythm are a periodic accentuation of an auditory succession (*i.e.* a repetition of functionally integrated groups), under specific temporal relations, given with the laws of periodicity of functioning in the bodily organism. The mechanism involves a periodical facilitation and inhibition of nervous activity, arising from the relation between the periodicity of its own rhythm of functioning and certain intervals in the objective series of stimulations, and also a motor accompaniment in the form of sensation reflexes occurring in some part of the bodily organism. The rhythm activity represents a relatively undifferentiated type

of reaction. Its appearance as a spontaneous exercise and a reflex accompaniment is a manifestation of the primitive tendency to perpetuate a movement once made. It belongs to the activities of early stages of development and of the lower parts of the nervous system.

The emotional effect of rhythm in music, poetry, painting, perhaps especially in architecture, which makes so great a use of rhythm in the alternation of features and the proportion of part to part—in fact, in all branches of artistic and æsthetic enjoyment—is, of course, well known, and need not be further insisted upon; but the fact is one of peculiar interest in view of the foregoing suggestion as to the origin of our appreciation of the beautiful. The effect of rhythm shows in a very clear and obvious manner how correspondence of structure and function to external conditions can give rise to a feeling of pleasure, which appears to be directly due to this correspondence; and although in this case the phenomenon is strongly marked, it is not difficult to imagine that there is a similar or analogous process at work in the appreciation of colour and its combinations, in form, and in the innumerable effects of nature, due to the development of structure that shall be suitable to the environment, and that therefore our appreciation of the beautiful is directly dependent upon the connection between the conditions of nature and the structure and functions of the organs de-

[1] "The Relation of Auditory Rhythm to Nervous Discharge." Professor M'Dougall, *The Psychological Review*, vol. Ix. p. 5.

veloped in it and so as to be suitable to it, so that the sense of beauty is the outcome in the ideal regions of the faculty or sense by which the developing organism was made aware of the suitable. The sense organs have a power of discrimination, and the right choice, *i.e.* of the useful or advantageous, is accompanied by a sense of pleasure—since those who were pleased by harmful things would be quickly eliminated, so that there naturally arises a sense of pleasure in the appropriate stimulation of the organs.

As soon as it was found that this pleasure could be increased by skilful combinations and varieties of sensations, any skill developed by primitive man would naturally be made use of for this purpose, and the term *art* has generally been applied to any branch of skill when devoted to causing pleasure by the stimulation of the organs of sense, especially to those of the eye and ear. As all the senses crave for the means of enjoyment in common with the needs and desires of the body that require their necessary satisfaction, there has grown in man what may fairly be called the instinct of creation—taking care to use this in the sense not of a simple instinct to create in the abstract, but the development of an instinctive activity devoted to providing by alteration or adaptation of the environment, objects or conditions suitable for or gratifying to the needs and desires of the organism. In the next chapter it is proposed to consider briefly the forms in which this instinct arises in the animal kingdom, developing into the skill which forms the basis of art.

CHAPTER VII

THE ARTIST

So far we have been considering in what way, and from which of the primitive instincts, the appreciation of beauty might have arisen; we must now turn to consider the question of art, to find the source of the impulse to create, and to ascertain the sources from which arise the means for attaining artistic power, and the production of works of art and objects of beauty.

Appreciation is necessarily previous to the effort to produce: it could be, and is, exercised on natural existing objects; and we can imagine that a keen appreciation of beauty might well be developed and exist without the production of any works of art at all; being gratified by and exercised upon nature alone.

Commonly speaking, by art, using the word without any qualifying epithet, we mean effort and skill devoted to the expression or creation of the beautiful. Clearly it is only possible to separate art from skill by the result produced; that is to say, mechanical skill or manual dexterity is required in the making of everything. This skill is engaged at one moment in the creation of the useful, at

another of the artistic, or very often of the two together in such a way that it is hardly possible to draw any line of demarcation. The connection between art in its early forms and utility has been already pointed out, and it is clear that the fine arts involve the exercise of a skill originally purely useful, meeting material needs; but carried on and developed to serve an ideal end, in the creation of that which is only intended to provide pleasure to the æsthetic senses, just exactly in the same way that the senses themselves, which provide the material for the ideal feelings, were originally an immediate aid to life in its most material form.

It is common to find the name of artist claimed by the exponents of almost any branch of skill —from tight-rope walking to music, from hair-dressing to architecture; nor is the reason far to seek. When a workman is spoken of as an "artist," it is intended to convey the idea that there is something more in his work than that of the ordinary man; that he has some sort of ideal in front of him, unconscious perhaps and only expressed by an extra care or finish, something over and beyond what will just do, that gives a peculiar excellence to his work. Consequently, any one who wishes to imply that he is superior in his particular line of work is apt to style himself artist. The title is willingly conceded to the workman who takes a pride and interest in his work, and this interest and delight, showing itself in the product, makes an appeal to the eye which

enhances greatly the total effect, often perhaps by the half-conscious recognition of the increased usefulness or adaptation to its purpose. The skilled armourer, in old days, making a sword, spent endless care and time in producing a perfect balance and fine subtle lines, thinking wholeheartedly of the purpose it was to serve, but all the time meaning to make a better sword than had been made before; at the present day perhaps it is hung up to be admired as a work of art, and the very curves and forms that now cause pleasure to the eye were solely designed to facilitate its deadly purpose.

So that, while it is hardly possible to draw any distinction between art and skill, that can be applied as a criterion, the word *artistic* may certainly be used of the work upon an object by any one to whom that object makes an appeal by pleasing his eye, as well as, or apart from, any pleasure in it as a purely useful thing.

The reason why works of art were first produced has given rise to endless controversies, and many ingenious theories have been propounded to account for the impulse to create. M. Hirn, in his "Origins of Art," points out that there are two things which have to be investigated — the reason why works of art are created, and the reason why works of art are enjoyed. He further states that if creation has been satisfactorily accounted for, it is relatively easy to explain the subsequent enjoyment of art, and that by approaching the question of the art impulse we

approach the art problem at its very core. It is, however, difficult to agree with this, for even if we agree with M. Hirn that the art impulse lies in the need for self-expression, we are still far from any understanding as to the reasons that give the form it takes a power of appealing to and arousing the emotions—why symmetry, rhythm, harmony should be in themselves capable of producing pleasure; but we can see that the fact that they do arouse a feeling of pleasure would be a strong inducement to apply skill and energy to the production and development of qualities that had this power of sense gratification. As we have just pointed out above, we must suppose a power of appreciation, even if latent, to which the first tentative steps in art production will appeal. We may more reasonably suppose the initial impulse to lie in any, and all, of our natural tendencies and needs, and the fact that we do find certain things beautiful is the reason for wanting them. The sense of hunger will drive us to procure food, but the endless varieties of dishes and sauces upon which the chef exhausts his ingenuity and skill until he claims the title of artist, are due to the discrimination and appreciation of the sense of taste. The fact that we like and enjoy a thing is alone a sufficient reason to insure the spending of a large amount of time and energy in attempts to gratify the liking. We may find the motive to production in the attempt to meet any need; for houses, food; weapons, offensive and defensive; in the manufacture of gods and magic charms;

in ceremonial; warlike evolutions; in the desire to convey information, to express and perhaps to relieve overwrought feelings—in fact, in all activity; and as soon as the bare utility is met, taste comes in, limiting and defining and developing the forms, so that they add to their primary utility more and more an appeal to the æsthetic sense. Just as, to take our analogy from the lower senses again, the really hungry man devours anything that is edible, but soon begins to alter and diversify the material in order to get more pleasure by variety of stimulation. It is surely a needless task to search for one specific impulse to art creation, though naturally some tendencies would be more fertile, in leading to what are now the fine arts, than others.

We are all artists up to a point, and are continually making use of the same feelings and motives in ordinary everyday life which have only to reach a certain degree of intensity to be labelled artistic. In arranging our houses, furniture, curtains, wall-papers, clothes, gardens, &c., every one is guided consciously or unconsciously by what, if set out in detail, might well be described as art principles; colours must not clash, due proportion must be observed, the unity of the effect must be maintained, and so on; we use what skill we have to gratify our æsthetic sense. Those who show special aptitude and love for such work devote their whole time and energies to it, and become artists. The whole story of development shows a gradually increasing skill in finding out ways and

methods to meet the needs and desires of the individual; all that is wanted to determine the direction the energies shall take is the faculty of taking pleasure in the result; we cannot suppose that the mere creation of works of art would produce a feeling of pleasure in them, though, of course, such a faculty would, like all others, be strengthened and widened by cultivation.

Some writers find the whole source and stimulus of art in the sexual emotion. Herbert Spencer[1] points out

"that the greater part of what we call beauty in the organic world is in some way dependent upon the sexual relation. It is not only so with the colours and odours of flowers. It is so, too, with the plumage of birds, and with the songs of birds, both of which, in Mr. Darwin's view, are due to sexual selection, and it is probable that the colour of the more conspicuous insects are in part similarly determined. The remarkable circumstance is, that these characteristics, which have originated by furthering the production of the best offspring, while they are naturally those which render the organisms possessing them attractive to one another, directly or indirectly, should also be those which are so generally attractive to us—those without which the fields and woods would lose half their charm. It is interesting, too, to observe how the conception of human beauty is in a considerable degree thus originated. And the trite observation, that the element of beauty which grows out of the sexual relation is so predominant in æsthetic products—in music, in the drama, in fiction, in poetry—gains a new meaning when we see how deep down in organic nature this connection extends."

[1] "Principles of Biology," vol. ii. p. 253.

Although Herbert Spencer thus draws attention to the important influence of the sexual emotion, he did not put it forward as the origin of art; but Dr. Nordau[1] quotes the above passage, maintaining that in it lies the sum of a complete science of beauty, going on to lay it down as incontrovertible that all art is due to a more or less obscure stimulation of the sex feeling, or, as he expresses it, a certain part of the brain, which he calls the generative centre. There is a superficial plausibility about thus referring our pleasure in beauty and the art impulse to stimulation of the emotions of sex, but it will not, I think, stand a more careful examination. In the first place, it seems fairly obvious, to take the much quoted case of the bird, that if the bright colours, &c., of the male had not in themselves an emotive effect, there would hardly have been any possibility of the first variation in the direction of colour, &c., producing an exciting, and so a favourable, effect. It is, of course, likely enough that certain colour effects might become associated with sexual emotions, and thus, in a secondary sense, add that feeling to their original emotion, and, as is often the case, the stronger emotion, once aroused, would tend very quickly to obliterate the weaker and occupy the whole of the attention. We have already drawn attention to the way in which an emotion at once overflows and arouses other emotions, and the extraordinary depth and intensity of the emotion of love must exercise a marked influence over all the others. A

[1] "Paradoxes," 1896. (Trans.)

work of art which not only arouses the æsthetic emotions directly by beautiful colours or rhythm, but by association or suggestion stirs, in some obscure way, the sex emotion, gains at once immensely in depth and power. We have a natural tendency to arouse as many emotions as possible at once in order to heighten our total enjoyment; beautiful music and lovely surroundings will certainly add to and heighten the feelings of love, just as, in a far greater degree, the feeling of love can so raise the general emotional tone that almost everything produces a sense of beauty and pleasure. No doubt, to a person whose temperament lies in that direction, almost every object that arouses pleasurable feeling will very quickly suggest some relation to sex feeling, simply because one emotion can suggest another, needing only the common ground of emotional excitement.

How the pleasure in some stately piece of beautifully proportioned architecture, the thrill produced by solemn music, or the calm sweetness of a summer landscape in the evening, is to be attributed to the feeling of sex only, it is hard to see; they have in common a pleasurable emotion, and that is all. That a very large part of art is directly inspired by erotic motives is perfectly true, and that various forms of art play an important part in love songs and courtship is obvious; but this is so because beauty produced by art has in itself the power of arousing emotion, and is therefore naturally made use of to heighten the total pleasure. That love has provided the opportunity and incen-

tive to innumerable works of art, that it has added to the pleasure and enjoyment of countless beauties, need not be denied; but we cannot admit that it is due to sex feeling that rhythm, symmetry, harmony, and beautiful colour are capable of giving us a pleasurable feeling. And yet these lie at the very basis of art; although the emotion they arouse is generally slight, until the associated and suggested ideas conveyed are aroused, and these derived ideas have so often so much stronger an emotion attached that they are apt to put the simple sense feeling in the background. The important part played by love in the emotional life of man is sufficient reason for the degree of attention which is paid by all arts to the vagaries and varieties of this emotion.

Professor R. Marshall has evolved the idea that the initial spur to art work lies in the "instinctive desire to attract by pleasing, leading to the production of objects or objective conditions that will be pleasing."[1] To those who find the origin of art in sexual selection, this theory is no doubt attractive and satisfactory, and it cannot be denied that the colours, &c., produced by sexual selection, provide material that does appeal to the æsthetic sense. We have, however, already pointed out that to attract by producing pleasing colours, &c., presupposes an already existing faculty of being thereby pleased. But quite apart from this, the impulse to art is subjective and is not determined by external motives, though things found to be pleasing to oneself are naturally exhibited or offered to any one

[1] "Æsthetic Principles," p. 62.

whom it is desired to please, and whose nature is naturally considered to be similar. The desire to attract by pleasing may, of course, be the cause of any particular piece of art work or production, but it is too partial for a general cause of art. The lack of universality also applies to Professor Baldwin's[1] suggestion that the source of art lies in the "self-exhibiting impulse." No doubt most works of art, being the offspring of the emotions and feelings of an individual, can hardly help being to a certain extent self-exhibitive; but we can hardly see, for much the same reasons again, in such a feeling the source of all art.

The universal desire for self-realisation is not the spur of art alone, nor is art simply the outcome of it, but it is most apparent in the products of the arts, for in them lies the strongest and most subtle means of expression; art can suggest the half-perceived truths, hint at vague fancies, and give allusive glimpses. The artist can thus embody in his work thoughts too intimate and sacred for the crude medium of everyday language, feeling that only those who can appreciate them will be able to discover the secret.

The most widely spread explanation of the art impulse is, perhaps, that known as the "Spieltrieb" theory, which derives it from the play instinct. This has been already considered to some extent in the Introduction, when discussing the question of utility and art, and we need not perhaps consider it here at much length; for, although there are no

[1] "Social and Ethical Interpretations."

doubt many points in which the disinterested activity of play compares with that of art, it is again clear that disinterested activity would only be devoted to, and continue devoted to, something that was pleasing, and that a piece of successful ornamentation must have been in itself a source of pleasure, or else there would have been no more incentive to continue and develop the process than the mere whittling of a stick. We need not detract in any way from the immense value to art and its development that leisure and freedom from the provision of the bare necessities of life would produce; in fact any progress or development of the higher branches of art is hardly possible without the opportunity given by leisure. We have already seen that it is highly doubtful how far either play or art are to be considered purely disinterested activities, at least in their early stages; but we may freely admit that there is a great deal of art that can for all practical purposes be considered very closely connected with play. But even so, we must bear in mind one important distinction between art and play: art is essentially creative, its aim is to make or alter something that shall survive in the form into which it is moulded.

An interesting and suggestive theory is that proposed by Berenson,[1] applicable, however, chiefly to the art of painting. After asking the question as to why it is that an object, whose recognition in nature may have given rise to no pleasure, becomes in a picture a source of æsthetic enjoyment, and that an

[1] "Florentine Painters," 1896.

already pleasing object acquires, when painted, a greatly increased power of causing delight, he finds the answer in the power of such representation to convey a feeling of enhanced vitality.

"The answer, I believe, depends upon the fact that art stimulates to an unwonted activity psychical processes which are in themselves the source of most (if not all) of our pleasures, and which here, free from disturbing physical sensations, never tend to pass over into pain.

"For instance: I am in the habit of realising a given object with an intensity that we shall value as 2. If I suddenly realise this familiar object with an intensity of 4, I receive the immediate pleasure which accompanies a doubling of my mental activity. The fact that the psychical process of recognition goes forward with the unusual intensity of 4 to 2, overwhelms them with the sense of having twice the capacity they had credited themselves with: their whole personality is enhanced, and, being aware that this enhancement is connected with the object in question, they for some time after take not only an increased interest in it, but continue to recognise it with the new intensity."

The idea is that greater pleasure is taken in the painted object from the accelerated psychical process, and the consequent exhilarating sense of increased capacity in the observer; again, in a representation of movement we get a clearer, intenser, less fatiguing realisation of the movement which gives a heightened sense of capacity, life communicating, and so giving the sense of an enhanced vitality.

We have drawn attention already to the fact that vivid visual perception is due to the conversion of ocular impressions into feelings of bodily and mus-

cular activity, and that this representation and suggestion of movements and tactual sensations arouses feelings of pleasure. It is also the case that the excitement of any emotion does in itself give a general impetus to the whole system, and thus a feeling of enhanced vitality, thus a beautiful thing could well produce this feeling without any idea of increased capacity; so that, without in any way denying that there may be a considerable amount of such a feeling in our appreciation of pictures and sculpture from this special manner of realising movement and space relationship, it is again only a partial explanation, and will not really help us to understand our pleasure in beautiful colour, in rhythm, sound, and in form apart from expression. Nor can we find in this, which requires a considerable degree of artistic development in order to produce its effect, the original cause of artistic effort.

M. Hirn, in "The Origins of Art," finds the impulse to art in the instinctive tendency to express overmastering feeling to enhance pleasure, and to seek relief from pain, on the ground that art is better able than any other kind of mental function to serve and satisfy the requirements that arise from this impulse when it occurs in its purest form. It is impossible here to give a fair statement of the reasons with which M. Hirn supports this thesis, for the whole of his clearly reasoned and most interesting book is devoted to setting them out. We can, however, I think, accept unreservedly the point of view as true as far as it goes; the tendencies

mentioned are among the strongest impulses of human nature, and would in common with the others make use of all means that would serve their ends. The power that art, especially music, has in relieving pain and sorrow is universally acknowledged; some seven hundred years before Christ, Hesiod[1] paid a tribute to this power of song :—

"When a man sorrows in heart, and grieves at the death of a loved one,
Then if a minstrel arise, or one that delighteth in music,
Singing the glorious deeds of men that lived aforetime,
And of the happy gods that dwell on the mount of Olympus,
Then he forgets his sorrow, and remembers no more his affliction,
And his soul is turnèd aside to enjoy the gifts of the Muses."

Once the efficacy of art to act as an outlet and relief had been discovered, we may easily imagine that grief and sorrow would be the cause of innumerable particular works of art, just as love, or joy, or triumph have been of countless others. It is difficult, however, to see in this the origin of all art, however great its influence in subsequently determining the direction and development of certain branches of it. In ornament and architecture, in decoration and a great deal of sculpture and painting, it is only by forcing the meaning of words to breaking-point, that we can consider the production to be due to strong feeling demanding expression; so many objects that we consider works of art were really created to provide for some particular purpose, while the characteristics that

[1] Hesiod, *Theognis*. Rendering by H. I. R., from the *Westminster Gazette*, September 3, 1908.

make them appear beautiful to us were added quite unconsciously and unintentionally—the maker simply feeling that it would be better so. There is no doubt that a person emotionally excited has a strong desire to impart his feeling to others, and if he is able to command some means that are more effective than ordinary language, he would obviously make use of them. It is, however, probable that, however much the great masterpieces of art have been inspired by desire for utterance and by strong emotion, the great majority of the ordinary every-day works of art, and most especially those in the early stages of art, are not due to any specific feeling for self-expression or self-externalisation, conscious or unconscious, but are quite simply the outcome of the fact that certain colours, forms, shapes, or sounds caused a feeling of pleasure that was sufficiently strong to lead to their repetition and development. It must always be remembered that we have to consider not only the exalted and inspired moments of art, but the commonplace ordinary like and dislike, which represents the average person's power of appreciation, and is the proximate cause of the vast output of the things made to please.

As soon as man, with his continual experiment in all directions, had discovered the curious and delightful power over the attention and the feelings possessed by rhythm, we may well imagine that he would continually devise means and occasions for enjoying this pleasure; but we have no reason to think that it would only be employed when he

wished to convey some idea or impart some feeling, though it would come with redoubled force when it could add to its own power some other emotion as well. But as words can hardly be used without saying something, and as music also gains by being expressive of some idea or some emotion, so any work of art is likely to be always expressive of something; but it is unlikely that the feeling or idea expressed was so much the cause of the production, as was the desire to enjoy the rhythmic or other beautiful setting, and thus to stir the emotions. As the mastery of the material and the means became more certain, and as a certain degree of refinement was reached, the intellectual factors would begin to play a larger and larger part; the ideal delights of the imagination and the stir of ideas would assume the place of greater importance, and so gradually reach the complicated compound of feeling and intellect that is aroused by the great works of art.

The arts in their earlier stages are simply skill and inventive ingenuity used to gratify the needs and desires of the individual, so that all human wants and tendencies are therefore to be considered the origin of art; what we now call the fine arts represent an abstraction of certain qualities that appeared, so to speak, incidentally in the products of skill only intended—in the first place at all events—to be useful. That is to say, that the appreciation of the beautiful is a natural faculty, pre-existent to any form of art; and as that faculty was found to be pleased by certain aspects or qualities in things that

had been made, as well as by natural objects, it led to more and more differentiated forms of skill, so that certain kinds were developed or set aside for the purpose of affording gratification to this sense in particular. This appreciation, though of extreme simplicity in the first place, would, like all the other faculties, become of increasing complexity and of wider range with the growth of the mental powers, making in its later stages intuitive or unconscious responses to things that had in an earlier stage to be consciously perceived.

If, then, we are to trace the creative instinct, we must go back again to the primitive organism. We have already drawn attention to the fact that the most important quality in survival is suitability to, or a harmonious interaction with, environment. This can be brought about in two ways ; either the animal can become adapted by structural modification, or it can by its own efforts, to a limited extent, affect its environment favourably to itself. It may secrete and extrude some material or substance that forms a favourable medium, or it may burrow into the surrounding substance ; it may, instead of developing a shell, make a covering for itself, as a caddis ; it may spin a cocoon, build a nest, or in innumerable ways make the immediate environment which it requires. The Terebella makes a tubular-shaped case in which to live by sticking small stones and other objects together ; during the process he seems to be, as it were, exercising selection—taking some objects, trying and rejecting others, making as a result a covering that is inconspicuous with its

surroundings. While natural selection would be always picking out for survival those who had a tendency to do it best, to imagine this done from conscious purpose is to assume a knowledge of the danger to be avoided, and implies a degree of reasoning power that is, on the face of it, absurd. We have already seen that, on good grounds, we may accept the view that it is not even accompanied by more than sense impression, an object of the wrong kind, too large or sharp, or inconvenient, is simply rejected upon contact, just as an object mistakenly seized as food is thrown on one side. The result is a covering that is an aid to safety by its inconspicuousness, not of intention, but because it is inevitably made of the small objects among which the animal lives; this can be shown by the fact that it has no objection to using glass or highly coloured stones if such be supplied it. As rising in the scale of life the skill in workmanship becomes more and more remarkable, in the ants, bees, and wasps very complicated pieces of construction are undertaken, both for the production of places in which to live and in the careful preparation of suitable conditions in which the offspring can develop. Mr. Peckham, in his careful and valuable record of observations upon wasps, gives a delightful story of one of the solitary wasps (*Ammophila urnaria*), that had the germ of the artistic spirit—the impulse to do the thing a little better than mere necessity. It is easy to see how such a quality would be a help to survival, and so be developed. After describing one that closed up the nest after having placed in it the

caterpillar and the egg in a careless and perfunctory manner, he goes on to describe a second :—

"The other, on the contrary, was an artist, an idealist. She worked for an hour, first filling the neck of the burrow with fine earth, which was jammed down with much energy, this part of the work being accompanied by a loud and cheerful humming, and next arranging the surface of the ground with scrupulous care, and sweeping every particle of dust to a distance. Even then she was not satisfied, but went scampering around, hunting for some fitting object to crown the whole. First she tried to drag a withered leaf to the spot, but the long stem stuck in the ground, and embarrassed her. . . . She then started to bring a large lump of earth, but this evidently did not come up to her ideal, for she dropped it after a moment, and, seizing another dry leaf, carried it successfully to the spot, and placed it directly over the nest."

It is easy to see how this kind of unconscious effort after excellence would provide the opportunity for improvement of the process by natural selection. Mr. Peckham tells a story of another wasp of the same kind, who finished off her nest by picking up a small pebble in her mandibles, which she made use of as a hammer to pound down and level the earth over the nest, the operation being repeated many times. The same thing has been observed of this wasp by other observers.

This activity is displayed in the direction of the adaptation of the environment to the wants and needs of the individual; and seeing that man has excelled so in this direction, we may well assume that this instinct of making things was very strongly

developed in the prototype of man, and indeed, seeing how closely the intellectual process depends upon the physical, we may easily imagine that it was the rapid improvement by selection of this quality that made possible the rapid growth of the reasoning faculty. It still remains one of our strongest instincts, and the source of no small part of the pleasure and interest of life; from the youngest child to the oldest man, there is no one who does not feel a pleasure in having accomplished something that can be shown as a result. The creative instinct may be shown in the making of anything from a toy to a steam-engine, just as in the work of art; behind them all lies the deeply-planted "instinct of workmanship,"[1] which gives so keen a pleasure in the pure doing something, apart from, and in addition to, the result produced, with, of course, its invariable counterpart in the mental or intellectual side, where the pleasure of making or creating is no whit less keen. And just as practical life demands of the skill of workmanship the production of an environment that shall be suitable and convenient for its physical needs, so the intellect demands a religious belief, or a theory of the universe that shall be in true spiritual accord with its highest aspirations. When skill in adapting the environment to the individual has reached a certain point, we find as it were a change in the method of development. The individual remains physically more or less constant, while evolution

[1] For the Instinct of Workmanship, see "Comparative Psychology," Loeb, p. 197.

takes place in the environment. To a large extent we make our environment, and instead of being born with a complete set of ready-made instinctive series of actions, we are only provided with aptitudes, with tendencies, desires, &c.; but we can make use of the accumulated experience of past generations—education, as has been well said, is the provision of environment.

To return to the question of the origin of art production. We see that in the process of evolution there naturally arises a strong instinct to deal with external matter, to mould or alter it, in order to render it more suitable to, and so more pleasing to, the individual, such efforts being guided by natural selection. In the first and earlier stages it would be more correctly described as natural selection picking out of the blind, automatic, purposeless activities those that happened to be in some way useful, and thus perpetuating them. When consciousness supervened, successful action in dealing with the external would be accompanied by an internal feeling of pleasure. It is thus easy to imagine that such actions will at some time tend to be repeated for the pleasure that they produce, although not required, or not actually useful at the moment. If such repetition was made at inopportune times, or was in any way harmful, the tendency would soon disappear in the struggle for existence; but when no actual harm resulted, or even in some cases an indirect advantage, such as giving practice in some activity subsequently useful, such pleasant actions would be repeated, and continue to be so

repeated long after the cause that gave rise to such particular actions as necessary had disappeared, while new ones would be added; so that while utility would in the first stage be the true and real cause of the pleasure, and the condition of its development and survival, it would in time so drop out of account as not only to be forgotten, and the reason for it impossible to conjecture, but even to be denied altogether—the pleasure alone being looked upon as the cause of the particular action.

In the fierce stress to which the whole animal kingdom is continually subjected, there is very little opportunity for any such constructive activity to survive beyond those that are actually useful in some way; their whole energies are required for the provision of necessaries. But it is possible to find in various directions what may be considered the germ of such development—that is to say, the repetition of some action no longer useful which seems to afford a satisfaction in its mere exercise apart from any utility. A dog will amuse itself by gnawing a stick, and finally will perhaps bury it, with extreme care smoothing down the ground with all the precautions necessary to preserve a secret hoard of food from predatory foes, while it clearly shows its recognition of make-believe by the complete indifference with which it will watch it being unearthed. The eagerness with which a dog or cat will run after, and play with, and try to catch a ball also illustrates the pleasure originally due to necessary activity. The Bower-bird builds a form of home, not a nest in any connection with

rearing its young, which it adorns with highly-coloured stones and stuffs, and in which it apparently takes considerable pleasure. It is not easy to imagine in what way this can have been of value, or to say whether it is now of any help to the birds, but it is fair to assume that at some period it was a valuable means of providing some form of protection or other assistance, and that if no longer helpful, it gives the birds sufficient pleasure to induce them to continue doing it. It would be well perhaps to point out that the foregoing is in no way intended to suggest play as an origin of the art impulse, a view we have already tried to controvert, but merely to illustrate how the pleasure in doing some action tends to persist, when there is no advantage to be got out of the performance. It is perfectly true that much, if not all, the pleasure in play is due to the exercise of activities and instincts that were originally useful and necessary, so in art production the pleasure in the work itself comes from an originally useful activity, while the result is demanded by—and is an attempt to meet—the desires and æsthetic feelings. Art is not the satisfaction of an aimless desire for some form of purposeless activity, but the attempt to provide by actually creating, or rather by making or moulding matter into a new form, an object pleasing to the senses. There is added to the pleasure in the result that of the actual workmanship.

There is no doubt that the semi-conscious or the sub-conscious knowledge of the utility of a thing has much to do with our feeling of pleasure

in it, and those who describe beauty as "perfect fitness" can urge much in favour of such a definition, provided that they do not insist upon a *conscious* recognition of utility past, present, or future.

Thus we find at an early stage that objects that were useful, or so altered as to be useful—*i.e.* as helping to provide a more harmonious interaction between the individual and his environment, either by enabling him to deal more effectively with it, or by being in themselves more suitable—were sensed as causing a pleasurable reaction (the previous stage being unconscious selection or action). As we have already seen, feelings aroused by an object always tend to be considered as qualities of the object with which they are connected; thus any such objects would come to be considered in themselves as pleasing or beautiful. As the ideal pleasure would in the rise of mental development always tend to preponderate over the material, so more and more attention would be paid to the qualities that caused pleasure to the higher faculties, until the question of utility would be entirely subordinated to an appeal to the eye; certain aspects would be elaborated, the pleasing effect of which would be due to some utility so far removed from the present as to be entirely unrecognisable, leaving its trace only in the thrill of a pleasure now considered purely æsthetic. It is suitability or utility which has in the first place determined which forms and shapes shall survive in every kind of instrument, utensil, furniture, building, or any other form of artificial production, and so to become the type,

and thus the basis from which beautiful forms are developed—just as certainly as the struggle for existence has determined the shape and form of the human body, which has for us an irresistible appeal to the æsthetic sense, and is perhaps the most typically beautiful thing that we know.

The exact method which led to the first beginnings of art, and what was actually the original form that it took, must of course remain very much a matter of conjecture. It is, however, of great interest to examine the earliest and most simple examples of art, and the forms from which it seems as though it must have emerged, although almost the first step must land us in a region where probability is perhaps as much as we can hope to reach.

We shall find the most promising field in the works of the most backward and uncultivated savage tribes, who are, we may suppose—though we must do so with great caution—more nearly in the condition under which art forms first began to emerge. In examining their production it is of the greatest importance to regard them with sufficient simplicity, and not to read into them more than we can avoid from the advanced standpoint of our complicated mental attitude. The mind of the savage is much like that of a child; his power of invention is very small, and he is, as it has been expressed, "incredibly conservative." This is, of course, a corollary of slight mental development; the power of dissociation and abstraction being small, the inventive faculty is corre-

spondingly feeble. It is owing to this strong tendency always to do things as they have been done before, so marked a feature among uneducated people, that the ethnologist is able to trace back many customs and methods to very remote times, especially in the case of the more backward tribes.

The early forms and patterns would, as we have often suggested, arise, not from any deliberate intention of producing a pleasing appearance, but either by chance, or in response to what may be called the sense of expectancy, aroused by the want of the familiar or customary. The latter requires some explanation. We have already laid stress on the strength of the liking for that to which we are accustomed; for it must be the safe, or that which has proved its utility by long use. This feeling of slight discomfort in the unfamiliar look of a thing would have many effects in small details. To the eye accustomed to an axe which was fastened on to the handle by binding, one secured in some different way might give a feeling of bareness, of something wanting, perhaps of weakness or insecurity, which would very naturally be met by marks to suggest the old binding. The part played by this sense in the origin and development of ornament and decoration is very wide. A glance at the first person met in the streets will produce many examples—in the unnecessary buttons at the back of a coat, in the slit lapel, and so on. The inclination to copy a previous method may be partly due to this tendency, as well as a default of inventive capacity.

As to the other method—chance—we may easily imagine a savage picking up an odd-shaped stone or piece of wood which has struck him by a resemblance to some animal or human being; a touch here or there completes the fancy, and he is delighted by the unexpectedly familiar suggestion. As likely as not it will be made into a fetish, placed perhaps in some niche—an embryonic god. It has touched his recognition instinct, and appeals no doubt with redoubled strength to one in the stage of mental development in which everything is credited with animal or human feelings and senses. So the young child at the imaginative stage is delighted to recognise a suggestion of a living being in the most unlikely places. As Sully[1] relates of a boy who having by mistake made two F ㄱ's facing one another, said at once that they were talking to each other; another, who made an extra stroke to an L, said, "Oh, he is sitting down." Small wonder that the slight shock caused by the sudden likeness to a human form should quickly give rise to suggestions of occult powers and magic influence. The mandragora has always been held to have some specially potent properties, owing to the fact that, with its usually bifurcated root, it seems to resemble a man.

The recognition instinct, no longer acting purely in its life-assisting capacity, would add its quota to the pleasure in recognising a pattern or form; this would be increased obviously if the form had, or

[1] "Studies of Childhood."

were supposed to have, some special efficacy. We are not attributing any disinterested and æsthetic pleasure to the savage mind apart from the purely unconscious response. He will, we may imagine, feel, and so prefer without realising it, a highly-coloured model of a god, and will daub himself with colours juxtaposed as he feels most suitable; will be roused to fury and excitement by the rhythmical dance in unison; will attempt to cover with marks a surface that strikes him as wanting something; and as he does so, the unconscious feeling for symmetry will tend to make the pattern balance. The patterns and forms will often tend to be constant, for in many of them the supposed magical qualities would prevent any intentional departure from the pattern; for no one could be sure in exactly which line or mark lay the real secret of its power. Even where no attempt was made to alter or develop a design, the inevitable inability to copy accurately would lead to a gradual, and in time considerable, change from the original as one copy was made from another.

Even a new material only gradually produces new forms, so strong is the demand of the eye and feeling for the well-known look; stone building followed the constructional detail of woodwork, and something was felt to be wanting until the ends of the pegs that were required to hold the wooden beams together had been reproduced, though entirely unnecessary, in the stone. When the North American Indians discovered the use of clay the forms followed precisely the older basket-work,

even to the ornament; the surface of the clay vessel was felt to be bare until made to suggest clearly the look of the old and familiar basket-work.[1]

A pattern or form that is continually copied, especially if it is not essential to the utility of the thing, such as that of suggesting some older but no longer necessary construction, becomes, as a rule, meaningless after a time, either by small and involuntary deviations, or by intentional modifications that seem to make it more pleasing; so much so that it is quite impossible to guess at the original motive. To the eye accustoming itself to each slight variation no discomfort or confusion is felt, and the pattern always appears perfectly natural and to be the right and proper method of ornamentation, although all resemblance to the object that gave it its original attraction or interest is lost.

In the production of charms and figures, such as are used in the practice of various kinds of sympathetic magic, is to be found a fertile source of what *afterwards* become art forms. It is most important to keep clearly in mind that it is not the art impulse that leads to their construction; we are so accustomed to look upon any form of imitation of natural objects as art pure and simple, that it is difficult always to remember that such imitation can be undertaken solely with a material object in view.

[1] "Origin and Development of Form and Ornament in Ceramic Art," W. H. Holmes, *Fourth Annual Report*, Bureau of Ethnology, 1882.

It would be satisfactory if we could think that primitive tribes believed that the greater the likeness the greater the power; that the important thing for its magical purpose was to make the nearest approach to an absolute illusion of reality, as it would greatly help to give us a suggestive explanation of the growth of realism in art. As a matter of fact there is no evidence to support any conclusion of the kind. A careful examination of the early stages of the practice of magic seems to show that while a sufficient degree of imitation to suggest the object was necessary, it was not of importance to make it very close.[1] In order to make the magic effective, the most essential thing was to get something that had some material connection with the object to be bewitched—some of his hair or clothes, or any object that had been in actual contact with his person.

Although the evidence does not show that the belief in the efficacy of realism was widely prevalent, it did, no doubt, exercise a considerable influence, and in some countries a too realistic representation of the human figure is not allowed, because of the magical, and so detrimental, effects likely to be produced.[1] In any case, the production of images and things, however crude and rough, for magical purposes must have had an incalculable effect in providing a starting-point, or rather material, upon which the art feelings would exercise their influence.

Thus it is easy to imagine that all the different

[1] "The Origins of Art," Y. Hirn, p. 289.

activities and industries of early man and primitive tribes would, by providing objects of various kinds, form a suitable field from which the æsthetic faculty would select appropriate examples and elaborate them. We have already drawn attention to the way in which objects once useful would please by a subconscious recognition of this; such forms would appear to have an attractive appearance—they would be copied, or form the basis of a design. In other cases we may imagine the suitability to purpose to be consciously recognised and deliberately appreciated. A man would become greatly attached to some implement of war or the chase, which by long use and much service had proved its utility and reliability; this might well form the starting-point for artistic development, various marks and signs would be engraved upon it, probably due in the first place to some idea of advantage, such as the owner's sign-mark, or for the purpose of exerting influence upon events by imparting some powerful "medicine" to the weapon, with the signs and figures with which it was engraved; also perhaps an obscure feeling that it was in some sort of way conscious, and that it would be pleased by the attention, and so do its work better.

Thus we get in the early stages a number of representations of things, and designs, or patterns, which, although they might be taken for artistic embellishment, are in reality only pictographs, ideograms, or owners' marks; models or images for purposes of exerting magical influence, lucky

signs, and so on, all of which while only intended to be useful had incidentally certain qualities that appealed to the æsthetic feelings; so that even at an early stage we can imagine that their repetition and development was due to a considerable variety of feelings and motives. There would be the purpose for which the object was being made, the pleasure in the form it was taking, or the arrangement of the pattern, which would be expressed by a tendency to prefer certain lines of development —symmetry, balance, repetition—and perhaps in a particular juxtaposition of colours, and by no means least the pleasure in the work itself; no doubt there would also be the desire to make a better or more striking, and so more effective, object than any one else had made. Gradually more and more attention would be paid to the mere appearance, and certain features found pleasing might become accentuated at the expense of mere utility, until the object could hardly be of any practical use, and things would be made deliberately for their pleasing appearance alone; or made use of as a means of expressing ideas or imparting feelings and emotions by giving them a setting that would ensure a sympathetic hearing, by their appeal to the emotions of the hearer or spectator.

CHAPTER VIII

MEANING AND EXPRESSION

So far we have attempted to confine ourselves somewhat rigidly to the consideration of the sense of beauty in its simplest possible form, as a direct sense response, and, as far as possible, to discount the part played by the intellectual faculties, in order to keep clearly in view the fact that it is this innate power of appreciation which is at the bottom of the problem of taste in regard to the beautiful; but, as we have already pointed out, although we can theoretically make some distinction, it is, practically, a matter of extreme difficulty to keep the simple, sensuous response clear of the innumerable ideas that come flocking into the mind, and which are so apt to be considered the source of the feeling of pleasure in the beautiful, owing to the rapidity with which they monopolise the attention.

We propose, therefore, to examine some of what may be termed the higher intellectual processes involved in the appreciation of beauty and works of art—that is to say, to consider how the intellectual factors arise out of, and are grafted on to, the simple feeling for beauty, and so bring about the highly complicated combination of feelings and ideas which we mean when we speak of the æsthetic emotion.

So far as our feelings are purely instinctive we share them, or at least the great majority of them, with the higher animals. Can we then say that the animals have the æsthetic emotion? This is a point that has been frequently discussed, but with somewhat unsatisfactory results. Some writers endowed with an anthropomorphic tendency have no difficulty in attributing to animals pretty much the same emotions and reasoning powers that we possess, with a difference in degree only, and find no objection in crediting them with æsthetic faculty —one writer indeed goes so far as to find it in spiders. Certainly we can say that animals are affected by colours—witness the birds and insects; by sounds also—for example, dogs and music or the snake-charmers; but this is far from having what we usually mean by the æsthetic sense. The real truth of the matter probably lies in the fact that the animals have the elements of æsthetic appreciation in their sensations, just exactly as they have the elements upon which any form of abstract reasoning is ultimately based. Man has no more sense organs than the higher animals, and founds all the conceptions of science and reason on his sensations. Exactly as the animal is incapable of the one, it is incapable of the other. The whole difference lies, we may well believe, in the ability to perceive relations. Once the faculty of appreciating the relationship of two things has been developed, the whole field of thought is open. As far as careful experiment and investigation can show, the animal is capable of a high degree of a kind of intelligence

based upon sense experience and memory. The process of trial and error is the only means by which they discover a thing; the "relation" between things cannot produce a sense impression, and we may believe that an animal has this power in only the very faintest form, if at all, and in the perception of relations lies the germ of true æsthetic appreciation.

The above statement requires some further explanation in order to make it intelligible; it turns, too, to a large extent upon the exact meaning attached to words. To take a simple example—when we see an object we locate it by its position in relation to other objects, but to explain in this way the method of locating involves the perception of the relation as such. But as long as we are dealing with simple sense impressions, the *relationship* need not yet have been perceived; it has not yet been brought into the focus of consciousness. As we look round we see all the things that catch the eye grouping themselves in new relationships, and though these relationships are not consciously considered, they can at any moment become the object of attention. For an animal or young child they probably remain impressions, with a marginal consciousness of relationship, if we like to call it so, which has never become the object of consideration, and which therefore does not exist as a conscious idea. If we consider a transference of attention from object A to object B, from B to C, and so on, we are aware, since consciousness is continuous, of the transition; but it is marginal, our attention

being concentrated on the succeeding objects. If a very young child, or an animal, presumed to be in the stage of sense impression only, be thus presented with the two objects, first A and then B will successively occupy the focus of attention; but the transition from one to the other, having no interest for sense experience, will remain marginal, and not until reflection is brought into play is this transition brought into focus and perceived. Clearly the transition from A to B cannot be focussed as a whole until B is reached—in the act of passage it is still incomplete; both of the related terms must be completed, consequently it is only by looking back that we can definitely perceive the relationship. The perception of a relation involves therefore reflection.[1]

As pointed out above, to perceive definitely the relation requires a certain amount of introspection and reflection, no doubt in simple cases of a very vague and incipient character; but however small, it is of immense importance, for in this perception of a relation, as such, we have the first step into an almost boundless new region of thought. The process when carried a step further—as, for example, passing from A to B to C—enables us to perceive the relation of A to B and that of B to C, and thus observe and consider the relation between relations, and so rapidly reach a highly complex order of thought.

[1] See Professor Lloyd Morgan's "Introduction to Comparative Psychology," where the whole question of the perception of relations in man and animals is fully discussed.

It must of course be clearly noted that the perception of relations merely means a new way of dealing with the already existing material. Long before relations are perceived as such, they are marginally present; subconsciously we are aware of them and act upon them, but we have not learnt to consider them as a thing in themselves—just as the mind worked for very long periods before it was able to consider and, so to speak, apprehend itself. Nor indeed in the early days was there any need to do so, since the marginal awareness was sufficient for practical purposes, as in the case of the animals. The obvious question then arises, what practical use and advantage was this faculty to man that he should have developed it, living as he did a wild free life differing but little from that of the animals? Professor Lloyd Morgan makes a suggestive answer to meet the difficulty. The perception of relations is a necessary factor in the evolution of descriptive intercommunication. The moment that we try to describe things to any one, relations must be brought into focus. The beginning of language required the perception of relations; the perception of relations at once began to make a language out of a few incoherent names for things.

A child, long before he can count, can sense the difference between one thing and two, between two and three, between several and many; so can an animal, but by recognising each as a separate sense experience—not through the perception of numerical relationship.

One reason of the important gain to mental action in the recognition of relationship as such, lies in the fact that it opens the road to abstract ideas. As objects presented to sense experience are compared, first one and then another quality is brought into prominence; the objects may be compared as to weight, hardness, &c., and the particular quality in which comparison is wished for is selected and emphasised, while the others sink out of notice. One aspect being thus isolated and rendered predominant over others with which it may be closely connected in sense experience, is on its way to become the abstract idea of intellectual thought. This process of comparison can be carried a very little way without some vague and dawning conception of the universal validity of the relationships dealt with in particular instances, and thus forms the starting-point of the higher intellectual operations that lie in the region of conceptual thought.

This power—the comparison of relations as a deliberate and conscious process—is, we may fairly believe, distinctively human. Animals and very young children live in a world of impressions and ideas set in a background of dimly sensed relations which have never been perceived as such. For fully developed man the world is a world of percepts, set in a background of relations which have been consciously grasped.[1] Once this has been done, and the perception of relations has come to form part of the mental process, its results become

[1] Professor Lloyd Morgan, *op. cit.*, p. 237.

so closely intermingled with all the phases of consciousness as to form an abiding background. Just as, at some moment in development, memory, and with it consciousness and the power of learning by experience, was added to simple reaction to stimulus, so we may imagine this power of seeing and realising relationship to intervene upon a certain development of intelligent sense experience. The enormous value of such a power needs no emphasis; not only does it greatly increase the range and ability to draw deductions, but it makes description, and so communication, possible, as we have pointed out above. No description, still less any explanation of knowledge, is possible, except in terms of the relations which the figures and objects have to one another. Animals or very young children cannot understand an explanation, not so much because they cannot understand the words —because of single concrete words they can learn a large number—but because the words are of things which they have never experienced, and so have no possibility of comprehension.

That an animal has not the sense of relationship and the reasoning power that would accompany it, is a matter about which there is still considerable divergence of opinion; it is suggested here, following Professor Lloyd Morgan, that it has a considerable degree of intelligence and of adaptation by means of sense experience, selecting appropriate action by the method of trial and error. As an example, he gives the story of a terrier of his, accustomed to fetch and carry a walking stick,

which the dog very soon learnt to pick up in the middle, since by balancing it at that point, it was easier to carry. One day he took out a Kaffir knob-kerrie, which, being weighted, balanced some nine inches from the heavy end. After an hour or two's experience, the dog, continually dropping it, owing to the discomfort of the want of balance when taken up in the middle, and picking it up again, discovered that it had to be seized near one end. This serves as a simple and good example of the means by which animals find out ways of doing things, in which no reasoning whatever is required. One of a number of aimless, but energetic, movements brings about a pleasing result or a desired object, such as getting out of a place in which it has been confined; subsequent repetitions shorten the number of attempts, until finally the sight of the particular door, or other object, sets in train the necessary actions. These when noticed may easily seem to be the result of deliberate reasoning. It is difficult to realise fully the great care required to explain, or even to observe, the actions of animals, and the extreme watchfulness necessary to keep out of our interpretation the inevitable tendency to credit an animal with reasoning powers similar to our own, when we see it doing exactly what we should under similar circumstances. The high degree of *apparent* reasoning power in ants and wasps serves as a useful corrective as to the need of such faculties in order to perform actions apparently requiring elaborate thought.

It may be thought that this point has been discussed at somewhat needless length, but it is one of importance. We have laid so much stress upon the development of the æsthetic faculties from primitive instincts, present even in the low forms of the animal kingdom, that it becomes very necessary to distinguish clearly between the meaning, so to speak, that sensations convey to the human being and the animal. We can, as mentioned above, easily suppose the animal to have the sensations, at any rate in a more simple form and lower degree, which we ourselves feel; the difference is in the use made of them. The organs themselves, as they develop, react to finer and finer shades of difference and to slighter stimuli, so that while they have the same kind of sensations there may be an immense difference in degree. If we choose to talk of a peahen having an æsthetic perception and admiration of the beauty of her brilliantly gleaming mate, we must be quite sure that we do not mean more than an emotional sense experience.

As soon as we have reached the point of isolating the relationship between two objects or ideas, and of considering it in its general aspect, not merely with reference to the particular objects, we may say that, instead of *per*ceiving the relationship, we can *con*ceive it as an abstract idea; this being a further extension of perception involving the results of a good deal of experience, in which the permanence of the relation, amidst many modes of manifestation, begets the general conception. An interesting point, and one upon which there is considerable diversity

of opinion, is that as to the possibility of keeping the attention upon such generalised concept in the absence of a name or symbol. A conception, say of similarity, is indefinite, and directly we attempt to make it more precise we think of a particular example—we turn the concept, so to speak, into a percept, while the word alone enables us to fix the general conception without particularising it.

It is this conceiving of relations that leads to the formation of general ideas. The process of comparison leads to the recognition of qualities common to a variety of things, and a general idea is a representation of a class of things. The first stage would lie in the welding together of a number of concrete images into a generic image—by a process, as it were, of assimilative cumulation. The type would then arise by an accentuation of the features which the successive images—say of a number of trees or other objects of a class—had in common, and a weakening of the less essential points. No doubt the early and simple stages may be carried out without any help from language, but it is extremely doubtful whether the orderly process of the comparison of a number of percepts and recognition of common attributes could be carried on without the aid of a word or symbol. It is certainly clear that, at all events in adult life, all clear thinking takes place by the help of language. The general idea can only be brought into and held by the attention by the name or some symbol.

"It is very uncertain whether in the absence of these and other general signs the infant or the lower animal ever

attains to a clear consciousness of the 'one in the many, the common aspect of a number of different objects." [1]

Here we see the recognition of unity in variety the widely accepted criterion of beauty, turning up as the very foundation-stone of the higher processe of thought; no wonder that it should give rise to pleasure, in its power to bring order to confused thought.

This point, of the part played by the name or the symbol in the process of thought, is really one of great importance to our subject. Professor Müller [2] maintained that no real thought was possible without language; to certain schools of Oriental metaphysics, things owe their existence to the names that, as it were, make them possible to thought. There is a curious realisation of the deep function of language in the opening words of St. John's Gospel—"In the beginning was the Word, and the Word was God."

As we reflect upon the qualities, the differences, and the similarities of things, we register them by a name, by which we can recall, and, so to speak, bring into focus, certain general qualities; and though, in our present stage of mental development and experience, we can get a kind of general idea of a quality without the name, or seem to feel as if we could, it is at least highly doubtful whether we could have ever reached the power without the process of thought only made possible by the development of language. The higher steps become

[1] "A Text Book of Psychology," J. Sully, 1892.
[2] "Collected Essays," vol. i. pp. 590 *et seq.*

possible by means of the verbally embodied results of the lower—

"Language is to the mind what the arch is to the tunnel. The power of thinking and the power of excavation are not dependent on the word in the one case, or the mason's work in the other; but without these subsidiaries neither process could be carried on beyond its rudimentary commencement."[1]

Now we may consider it one of the functions of art to embody a general conception of some subtle kind, and to seize and offer for consideration something which has not yet found a word by which it can be expressed, but which has at the same time an appeal to any observer who has sufficient knowledge and experience and quickness of apprehension to catch it: and for him the particular work of art is the peg upon which he hangs his conception; unformulated otherwise, it only exists for him there. In many cases this appreciation of the idea may lead to a new name being found. It must often happen that a work of art gets part of its charm by suggesting some conception—vague perhaps, but of real interest—which is as yet nameless, and, not having any known symbol, cannot be fixed and so brought into the focus of consciousness; to music perhaps this would apply particularly—

"And, as imagination bodies forth
The forms of things unknown, the poet's power
Turns them to shapes, and gives to airy nothings
A local habitation and a name."

For example, the Capitoline Zeus conveys a

[1] Hamilton, quoted by J. Sully, *op. cit.*, p. 262.

very distinct impression of a quality of command, fatherhood, royal dignity, and steadfast inflexibility; and there is no doubt that part of its charm lies in this generalised conception of a number of subtle qualities for which we have no definite expression when combined, and we are pleased at the opportunity of thus grasping a conception of unity combining variety, in the novel aspect of such qualities synthesised into one. When emotionally aroused, the quicker beat of life leads to an enhanced celerity of thought; suggestive hints are quickly taken up and conceptions are made, not necessarily intended or thought of by the artist, but latent, or rather struck into being by the excitement into which the mere beauty of his work has roused the mental qualities through the æsthetic sense. Much is unconsciously or half-consciously conveyed by the artist; full of numerous carefully studied examples, he tries to evolve a conception of the type —not the mere average, but in the direction of the beautiful—and his work may become the standard, and as it were a symbol, almost a word, by which we call up to ourselves a certain conception. The Venus de Milo is a conception of a certain aspect of female beauty that we can use as a symbol, a word full of emotional significance.

Certain forms of art, such as that of sculpture, may offer a generalised concept of a number of images of a tactual or muscular nature of which we are really so little conscious that we should perhaps never think of resuming them under a name. Hegel suggested that a gem-cutter must have his ideas in

the form of muscular and tactile feeling, for he cannot so much as see his minute work. So in all art the well-practised artist, with his attention fully directed upon what he is trying to express, is almost unconscious of the actual details. The sculptor's sense of touch moulds the delicate, subtle curves; the painter plays on his colours almost as a musician on his notes; in the result, there may be numerous subordinate, probably subconscious generalised conceptions of line and colour that have a strong appeal to the highly trained observer, who will, so to speak, discover them, isolating and drawing attention to effects of this nature which in a great number of cases were not perceived definitely, and lay in the marginal subconsciousness of the artist himself. We may, however, be sure that one of the great attractions in art is this power of acting, so to speak, as a point of crystallisation for the vague and floating ideas which have never been seen in their true relationship from the want of a symbol upon which to focus the attention.

It is probably due to the inability to perceive and realise relations that any form of drawing a picture is meaningless to the most intelligent animal, unless, owing to the sign and colour, or something in the arrangement, it amounts to an actual illusion of the real thing.

Conceptual thought rising into ideal construction will be considered under the head of imagination and the constructive faculties of the intellect. What is for the moment of importance is to recognise the practical value of conceptual thought, in

order to show a clear and obviously advantageous reason of each advance in intellectual faculty, and therefore of the origin of the pleasure in the exercise of it. The power of forming concepts develops and makes possible the formation of systems that will afford guidance in the affairs of everyday life—that is to say, a generalised scheme, or plan, that will enable us to deal more promptly and more effectually with new situations than by the crude and wasteful method of discovery by trial and error, which is the only way possible to mere sense experience, in the absence of rational thought.

When a child has lost or wants something, he looks aimlessly about, here and there, until perhaps he comes upon it, this simple trial and error having probably proved successful as a rule. The following experiment, described by Professor L. Morgan,[1] will illustrate the point: A ball was dropped in a grass field, and a number of adults and children started from a stake in the middle to look for it. Naturally the young ones meandered about, searching one corner several times, missing others, finally coming on it, if at all, by chance. With adults the search was, as a rule, methodical. A moment's consideration was enough to form the idea that by going in an increasing spiral, or by a regular gridiron course, it would be easy to make sure of examining each part of the field. They had a definite reason why the particular course was adopted, and why it was bound to be successful. An animal would, of course, trust to the hap-

[1] "An Introduction to Comparative Psychology," p. 279.

hazard style, unless trained to cover the ground regularly.

The result of sense experience alone is, as a rule, in a simple life a sufficient basis for expectations of a practical kind, without the need of any higher conceptual process. A dog seeing its master in a black coat and top hat will go back and lie in its corner, while a tweed coat and hat brings him barking and jumping in the expectation of a walk. Speaking loosely, we say the dog infers from the one that he will be left behind, and from the other that he will be taken. There is, of course, no need for any reasoning; the tweed coat and cap are, as a matter of simple sense experience, connected with walk. No doubt a very large number of our own actions are based upon this immediate expectation, or, if we like to call it so, direct inference, keeping out of it the idea of a chain of reasoning. In this way a kind of restricted reason, or intelligent expectation, exercised its function for a long time before reason, in the full sense, came on the scene to explain the meaning and set forth the relationships. But when conceptual thought has become a habitual intellectual process, and systematic generalisations have become, as it were, a second nature, we find that the significance of a situation, in relation to some general concept either already present or simultaneously formed in the mind, may arise as quickly and as completely as the meaning of a situation does for simple sense experience. It is to this circumstance that an object may give rise to an instantaneous feeling

of pleasure without any conscious or apparent process of thought. So we have the sudden intuitions—flashes of insight which suddenly light up some tangled maze of ideas and facts, and in a moment give the generalised concept that brings them all into order.

Long pondering over a subject, the careful scrutiny of many facts relating to it, the arranging and rearranging of ideas is suddenly illuminated by a conception that seems to come, as it were, from nowhere, though often some additional fact or a side light may be the obviously exciting cause. In such cases we may call the logical process implicit, and the logical relations must be subsequently traced out and rendered explicit. The logic comes after the insight. Many people see their conclusions, and then find the reasons to support them.

But we only find these pieces of brilliant insight in minds fully capable of explicit reasoning. The flash of insight which was aroused in Newton by the falling apples presupposes all the wide resources of his highly-trained brain.

Omne ignotum pro magnifico, if we cannot understand it, it must be wonderful; so we attach more importance to the sudden idea coming from nowhere than to the carefully thought out conclusion of logical deduction. We find often enough that the exponent of some new theory of the world in a new religion, after perhaps a long course of reading of Oriental metaphysics and vague thinking, suddenly announces scientific thought and method to

be delusion and a snare, and that the truth can only be conceived by getting half glimpses from a world not usually accessible to sense, which come through the subconscious mind when left without control, and that in this way they can reveal things that no amount of thought and scientific investigation can ever approach: whereas in truth the very means by which their own information is gained is only rendered possible by the method of logical thought that they despise, and that if the rational mind had not discovered and perceived relationships, and built up the fabric of conceptual thought and abstract idea, the irrational or subconscious mind could not ever have had the ideas upon which they base so much. The whole trend of progress lies in the conscious and rational apprehension of objects and ideas that to begin with are marginal or unconscious.

But while the teacher and the philosopher must keep to the clear light of reason if they are to help the world on its way, and to advance the growth of knowledge, to the artist we may give full liberty. We do not ask him for facts, for definite information, for rules of conduct or a theory of the universe and the ultimate destiny of man. From him we ask for beauty, for pleasures that shall appeal to our highest sensibilities. The artist can search out and eagerly fix his attention on beauty of all kinds wherever he can find it; he can let the sense impressions sink into his soul, and then, with sudden uprush from his unconscious or subconscious sense, there may spring a new conception, not of things

he cannot know, but a new aspect or relationship of things perceived, combined in a new way, accentuating the features that appear beautiful. It is the vague imaginings, the dim suggestions, the stirring of the emotions to which our temperament and training will fit the appropriate thoughts, that we want from the artist. Just as we go to nature, and feel in the woods and the hills the sense of mystery in things, and the grandeur of the universe in the stars; so the artistic mind, feeling these more deeply, can show us the way to see them, and we are the better, and our mind the fuller for it. Life is the richer for the value and the good that we have got, and for which we can never be too grateful, for in such good lies the great part of our higher intellectual pleasure. We must not, however, confuse such intellectual pleasure with knowledge. It is not usually the fact, and there is no reason why it should be, that the artist is necessarily of great intellectual calibre or of profound wisdom. The fact that he can impress us with the mystery of things in an intense degree does not mean that he is thereby explaining them or taking us nearer to the real meaning. All our sense of life, our feeling, our joy in living is strengthened and intensified. The sense of vitality is enhanced because every excitement of a pleasurable emotion at once increases the pulse of life, and makes the whole being beat more quickly; but it is our natural sympathy with nature that is being trained, not our intellectual comprehension of it, for beauty appeals primarily to feeling, not to intellect, however much

the wider powers of the intellect share in the total pleasure and are touched through feeling.

It is interesting to note that art seems deeper and more profound the more incapable it is of definite expression, and it is in music perhaps that we find this most accentuated. Music, with its matchless strength of appeal to emotion, is often credited with a deep significance. It is undoubtedly a wonderful spur to all the faculties, but can it give us anything not already there? can it do more than drive home our own thoughts, in new connections perhaps, and with an added emphasis never before realised, from its extraordinary appeal to the senses? In his book on "The Philosophy of the Beautiful," Professor Knight says :—

"Music appeals to us more *directly* than either painting, sculpture, or architecture does; because it dispenses with everything except the medium of sound. In so doing it takes us closer to reality than any of the other arts can. . . . It carries us towards the underlying essence of things—the *Ding an sich*—not by intellectual discernment, but by simple intuition; not by circuitous scientific analysis, but by a synthetic process of what may be called divination or second sight.

"He (the musician) works not analytically, but by a perpetual unconscious synthesis; and, as soon as he begins to create, the ideas with which he formerly struggled in inartistic moments, and which he now tries to express, flow along a subterranean channel. The 'fountains of the great deep' are broken up, and in his creative art he

'Sees into the life of things.'

The musician's insight cannot be described as either wholly intellectual or altogether emotional.

"Music touches many problems, and drops them again. It skirts the margins of others. It takes up some questions, and without answering them shows that they are unnecessary. It throws a plank across the chasm which all ontology discloses, by which we may cross securely to the opposite side."

It would be easy to fill books with similar quotations in which this wonderful insight and knowledge of the meaning of things is attributed to the musician and music. In one sense, no doubt, it is true—beautiful music does produce the effects described in a sufficiently qualified hearer. But the real truth of the matter seems to lie in the phenomenon already discussed, of the objectification of emotion; because we feel these things, deep thoughts, profound suggestions, we believe them to be in the musician and in the music, and because he suggests them we think he also must understand them. When we have these same feelings of the infinite and the ideal, of truth and goodness, and of the profound mystery of the world—stimulated by watching the stars on a fine clear night, in the growing twilight of a beautiful country, or in the sympathy of love—we know that they are in ourselves called up by the emotional excitement for which the particular circumstances are responsible. So it is with music; the great musician, with his perfect sense of harmony, can produce by his beautiful creations a wave of emotion that stirs us to the very depth of our being, and under the spur we feel old thoughts with a new significance and depth, and we have a warm, emotionally realistic, feeling of truths

perhaps till then mere intellectual concepts, so that they may seem, when really felt, to be actually new. All our ideas are so suffused with a new warmth and appreciation, and so many ideas are touched and started and seen in new combinations, that our very inability to take them in—to do more than be half-consciously aware of them—gives us the feeling of a profound vastness and depth of knowledge. But does this delightful vague reverie always, or even often, lead to a higher knowledge, or a finer life?—do we find ourselves actually wiser or the world the better?

In all the arts we find that in exact ratio to their definiteness of form the intellectual will predominate over the emotional. The great novelist will be a man of observation, a shrewd interpreter of character; the poet may vary from the philosophic to a highly emotional temperament, but as his message is more clear and definite the more will he be intellectual; and advance in any art is marked by a growing regard for an appreciation of form.

In the appreciation of beauty of form arises the difference in æsthetic corresponding to the difference between sensation and the perception of relations. A simple perception of a pleasing object, or collection of objects, without consciousness of the distinction or relation of the parts, would be a sensation, not a perception of form. As we have seen, the æsthetic value of an object is due to the particular mode of stimulation upon certain sense organs, but if to this there be added a considerable contribution from memory and training, the

resulting pleasantness will be due, not only to the pleasing sensation, but also to the apperceptive reaction, and the latter will become more important as the object relies for its form and influence upon the experience and knowledge of the observer. The apperception of form depends just as simple appreciation of sense impression upon constitution, age, congenital tendency, but also, and to a larger degree, upon experience, training, and knowledge.

The less definite the object, the wider the scope and the greater the necessity for the play of mind in finding some particular aspect of perception which will determine the form; though it must be remembered that the form is only indefinite, as far as it is incapable of arousing a suggestion of something experienced or known. A cloud, for instance, has a perfectly definite outline, but remains indeterminate for us until its form, previously vague, turns into something that we can recognise, an animal, or a ship, or some other thing that we know. It would be no more and no less really definite, but as soon as we were able to impose a recognisable form upon it, there would be not only the brilliance of colour and the beauty of its light transparent look, but a new value added in the form that we had found for it.

It is the exercise of the apperceptive faculty that gives the interest and pleasure found in indeterminate objects, to the vague, the incoherent, and the suggestive. The more this is appealed to by the artist, the greater the richness presumed in the observer's mind, the less the power of the performer.

A simple and poorly-equipped mind is nonplussed and bewildered by vague indeterminateness, and turns away to simpler things with a helpless feeling, or with annoyance amounting to openly expressed contempt. The artist not artist enough, or of natural genius without sufficient patience to acquire thorough technical skill, or to work out his ideas, is sure to delight in the region of vagueness —sketching, hinting, suggesting, stimulating, but not informing or imparting ideas. There is no doubt that such a nature has a feeling of immense profundity, or mighty significance, of being always on the verge of a masterpiece which somehow is never executed. To a certain extent this is a perfectly legitimate and proper feeling, for the limits imposed by our materials for expression, colour, form, sound, words, make it impossible to express the full reality of experience. The most perfect mastery of technical skill will not be exhaustive, and there must be always left a fringe that can only suggest—by no means the least valuable part of a great work of art. So that where there is really profound thought and mastery of material, there will still be a felt inadequacy of expression, so that an appeal must still be made to the observer to help the imperfection from his own store of ideas and experience. But this is really a different thing to the point to which we were referring, and comes after all the resources of a thoroughly learnt art have been exhausted. It may be that thoughts can be too subtle for the coarse medium of words; but that, if true, and not merely due to want of more care-

ful thought, is no excuse for saying that, as no words can really express the thought, it matters little what words are used, trusting simply to a vague suggestiveness. What is felt as depth is too often incompetence, and a very simple thing is unutterable if we have not learned to speak. We may be pretty sure that habitual indulgence in incoherence and vagueness is a sign of want of thought, of a poet or a painter who has not mastered their craft, without denying that there may be at the back of it a soul of immense but inexpressible genius.

A public, widely educated, pluming itself on its ability to understand and appreciate, is a great snare to the artist, who is apt to be led into unauthorised experiment, whimsical efforts after originality, to throw off a sketch or an idea before it has matured or been really worked out, by the certainty that it will find admirers who are only too ready to take crudeness for strength and originality, vagueness for sublimity—each anxious to proclaim that, however meaningless it may appear to the vulgar, to them it is full of a subtle and refined beauty, and, by their asseveration of its greatness, force adherence from many too conscious of their own inability to judge.

The attraction of the indefinite is a point of great interest in the question of the emotional response to beauty. If we are to accept the view that the pleasure in form and beauty is due to the content or expression, to the recognition of unity in variety, of the realisation of the ideal within the real, or any of the numerous explana-

tions of beauty that refer it to an intellectual perception, it is very difficult to see any reason for the æsthetic pleasure in a subject that becomes more beautiful the less clear and defined it is—as a photograph, for instance, which is made more "artistic" by the simple expedient of putting it a little out of focus. We have maintained that we must look at æsthetic emotion as made up of the natural response of a number of innate reactions, which may have in many cases lost all use, or even meaning, but still remain capable of arousing dimly-perceived states of feeling, which in turn, by the process previously described as the analogy of feeling, arouse others, and thus set in motion innumerable trains of ideas, the connection being in the similarity of feeling, all of which in their turn react upon and increase the total emotion. In this case it is not difficult to see that the very fact of a thing being indeterminate would allow a freer play of these obscure feelings, from the fact that the mind having no definite idea would not to the same extent tend to keep the feelings and ideas in a particular direction; in this way the vague suggestive painting, and the rhythmical cadence of some kinds of poetry that is apparently almost meaningless, come very near to music, and share its illusive suggestion of power to impart knowledge and ideas.

Although suggestive indeterminateness of form has this great power in arousing emotion, it has many disadvantages. It is by its nature ambiguous, and so obscure and uncertain in the effects it may

produce. Where no definite meaning is to be conveyed, as in architecture, music, landscape painting, decorative art, and so on, the lack of form is perhaps less objectionable, though the observance of form, and the demand for it, in these branches of art is a sign of increasing appreciation. Form is not perceivable by the ignorant or untrained, by whom the arts are regarded simply as a delightful source of emotion, or as a soothing or exciting influence; but who would be content with this as their full and best function? The need for definiteness of form in literature, when the actual "sense" values of the parts is small, is too obvious to require elaboration, though even here certain effects are got by intentional formlessness, as in the writing of the symbolists, who try to express ideas, perhaps hardly possible to articulate, the suggestiveness of which might be lost by precision; but meaninglessness is soon reached, and the imagination of the reader has to supply the want. The indeterminate in form requires the observer to furnish the completion, and the power to do this must vary with the capacity of the different persons. The object will be beautiful to him who can make it so, ugly to another to whom it remains unsuggestive and unintelligible. To the observer who has a well-equipped and active mind, many works of art may appear beautiful from which he gets but little value; he is presented with no new object, and can only fit to the vague object some previous experience. He is not taken away from

his own stock of ideas and his imagination drawn into a new path; he is not enriched by some new beauty. There is, however, the vague emotional stimulus, and a creative mind, rich with observation, may perhaps from the excitement catch some new and delightful idea; but it is his previous study of the definite forms which nature provides, or which the artist has moulded to new conceptions, that has enabled him to do this. The indeterminate has this advantage, that it cultivates spontaneity of ideas and imagination, and so makes the mind find many a thing intelligible that might otherwise remain unnoticed or uninteresting. Without this power of imposing order upon the indefinite, all would be chaos, without form and void.

It often happens that some object, fluid, changing, indeterminate, by stimulating the perceptive activity of mind, will seem more beautiful and sublime, to have a deeper significance, to have more life and possibility, than one which presents a single unchanging form, however beautiful. And yet the whole object of the activity is to reach definite form, and we see no beauty until we have introduced it. But there is, in dealing with the incomplete, the feeling that we have not yet reached the best that it can suggest—that there is something still behind, if we could but see it, that seems to give a suggestion of infinite possibility. This instability of form can hardly be a real advantage, for the beauty fixed by some stroke of genius keeps constantly what can only be reached by the

imagination, if at all, in some especially propitious moment. We may find the perfect, definite form become monotonous, and prefer the transient gleams of a beauty that is always eluding us in the indeterminate. This is no doubt due to the illusion which lends a mysterious charm to the indefinite and undefined by its suggestion of infinite perfection. And yet perfection involves finiteness, and nothing, in fancy or nature, can be perfect without realising a definite type or form, the result of apperception.

There is a widely prevalent habit of mind which, incapable of realising any particular thought or idea in its perfect clearness and beauty, yet is aware of its haunting presence somewhere in the background. The brain is too full—many ideals, innumerable tendencies of thought, and inarticulate cravings teem in a confused emotion, so that if a single definite image be presented, it seems inadequate, perhaps by reason of its very perfectness. The power of concentration, of serious attention that would make possible real appreciation of the particular excellence, is wanting. It is easier to wander in the vague yearnings of half-thoughts and semi-visions, and the height and exaltation of the mood seems somehow in proportion to the incapacity to think or realise anything coherent. The total of the emotions may be imposing; there is the suggestion of an infinite meaning or purpose, and what seems to come nearest the ideal craved is not any one definite form, but something which, with a pervasive thrill, will stimulate the

ndeterminate emotion with hints and haunting suggestiveness of an infinite beauty. Thus infinite perfection—a contradiction in terms and incapable therefore of realisation—is suggested, and is apt to be regarded as something higher, of deeper significance than any determinate beauty.[1]

We are expected very often to find the greatest expressiveness in the indeterminate, which, as a matter of fact, expresses nothing. A confused jumble of promptings and feelings will give a sense of profundity and significance; the awakening of many incipient thoughts and dim imaginings will give an illusion of infinite perfection; and we attribute to the object with which this emotion is connected a mysterious power and some deep meaning. The sense of being on the verge of a perfect comprehension of reality and ultimate truth may accompany certain vague states of consciousness that lie between sleeping and waking. Prof. James[2] describes how such states may be induced by the gas administered for dental operations.

"Nitrous oxide and ether, especially nitrous oxide when sufficiently diluted with air, stimulate the mystical consciousness in an extraordinary degree. Depth beyond depth of truth seems revealed to the inhaler. This truth fades out, however, or escapes at the moment of coming to; and if any words remain over, in which it seemed to clothe itself, they prove to be the veriest nonsense. Nevertheless, the sense of a profound feeling having been there persists."

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[1] "The Sense of Beauty," pp. 145, 146. G. Santeyana (1905).

[2] "The Varieties of Religious Experience," p. 357.

Such feeling of significance is in itself of little value. It is a potentiality of imagination, and only when it begins to be realised in definite ideas does any real meaning arise in the mind. The highest æsthetic good does not lie in vague possibilities, but in the number and variety of finite perfections. Progress does not lie in formless emotion and aimless reverie, but in the direction of discrimination and precision, in seeing in nature the typical forms of things and enshrining them in art, to train the imagination to see as many beauties as possible and realise them in creative adaptation to environment. If we prefer so to describe it, utility organises the world into definite species and aggregations of matter. Only certain forms are in harmony with the laws of gravity, which disintegrates some forms while solidifying and perpetuating others. The eye is instantly offended by any obvious departure from this law, however ingeniously contrived, and thus comes to recognise certain types or forms as permanent and satisfactory. We have already traced the natural harmony between beauty and utility, though it is clear that our æsthetic delight is not based upon a conscious recognition of practical advantages, else many hideous things would be beautiful, and Socrates' contention be true that he was really more beautiful than a certain handsome youth, because his protuberant eyes were better adapted for seeing, his large mouth for eating, and wide nostrils for breathing. This seems to reduce the theory to an absurdity, and yet it has much truth in it. If a nose, and eyes, and mouth like

those of Socrates were so necessary and so advantageous to survival that such a conformation had been developed by natural selection, we should inevitably consider them beautiful; somewhat in the way, perhaps, that the Hottentot admires his women, whom we consider repulsively ugly. Beauty may be constituted by the imagination with utter ignorance of, or indeed profound contempt for, practical advantage, and yet it cannot get away from the necessary and the useful, for the necessary must be the common and the habitual, and therefore the basis of the type, from which imaginative variations are created by accentuating the attractive features. We have already shown that the unconscious response to the useful is one of the factors of our æsthetic pleasure. If this is true of the instinctive stage, it is perhaps as strong in the derivative stage, where apperception adds all sorts of outside influences, and brings the knowledge of fitness and utility into play. It does it, however, as a rule, in an indirect way; we may not be consciously affected by the obvious utility or want of it in a beautiful thing, but we do recognise that the artist is limited by practical conditions, and we generally find our pleasure in a thing is increased by a knowledge that it is useful as well as beautiful —a sense of waste roused by the useless or fictitious will do much to prevent enjoyment in an object, and so deprive it of beauty. This is an adventitious complication; the intrinsic value of a form is not really affected by it.

It is interesting to note that as appreciation of

form requires a higher mental equipment, so it comes late in the progress of art. Training and quick powers of perception are required to grasp it. A child or a barbarian delights in colours, and decorates with rude masses of strong hues before he begins to formulate designs; and appeal to sense is made by lavish colour, rich material, and profusion of ornament, long before simple beauty of form. So in music; to many it never has more than a sensuous or sentimental value; with education comes the power to distinguish form, and with it a keener pleasure. Even in sculpture the earlier work was covered with gilding and colour, until gradually the pure form won its way by the increasing power of discrimination and keenness of apprehension. So there are two main lines of advance or effect; first there is the form—this is the useful type, developed by need for its own advantages; this receives the ornament of colour or profusion of detail with its appeal to sense. The ornamentation itself of the form will direct attention to it; the more pleasing will be selected; any feature that seemed attractive would be accentuated, and the ornament used to emphasise and bring out more clearly the delicacy of form, and finally the ornament be subordinated to the form. Thus we accept and make use of forms, the original direction in which they would be shaped determined by utility; and by continual perception weave them more and more into our own feeling, making them more beautiful and expressive.

We do not necessarily like a new thing at once,

because it is useful, but if it is really necessary it appeals to our practical approval; and as we admire its ingenuity we become accustomed to it gradually, until we should come to miss it, and in time there will be formed a type which will be capable of being made pleasing. Chimneys at one time were considered an ugly excrescence to be concealed as far as possible; sloping roofs have so determined, by their practical utility, the usual finish to a house that we like them, however much we may at times think we should prefer the open balustrades against the sky. The ever recurring mingling of the useful form and the more beautiful development has so complicated the feelings that we cannot divest ourselves of the almost subconscious approval of the economy or fitness—the sense that a form so long borne by some particular thing must be right, so that we do not ever question it. But this is often a slow process: first of all, the new form may take a long time to develop into the best shape for its practical use; and then the habit that will ultimately produce the toleration, ripening into pleasure, may be of long growth. It is difficult to judge of the question at the present day with regard to the introduction of new and useful forms; these appear with such rapidity that we have not had time to assimilate them, and they have not had time to find their final type. It may be that iron and steel construction will develop into a form in which we shall find real beauty; the motor car develop the graceful lines that will make it a pleasure to the eye. But we may at

least go so far as to say that if the appearance of utility does not constitute effect, it at least modifies it—glaring obvious unfitness will spoil anything; while a clear, practical utility will at least insure toleration for the most rude and awkward-looking contrivance. If we think of it, it is almost necessary that utility should keep watch, as it were, over beauty; the laws of natural selection and survival must exclude the useless, give value to the useful; to run riot in pursuit of a beauty which had no connection with practical advantage would run counter to human advance and happiness, and end in confusion. It is not surprising, therefore, that we have, as it were, a natural dislike to mere wanton extravagance and lavish waste. It is this curious contradiction between the obvious connection joining beauty and utility, on the one hand, and the almost passionate denial of the artist and lover of beauty that utility has anything to do with it, on the other, that creates a great stumbling-block. The answer lies, as we hope to have shown, in the fact that all forms to have survived must have been at one time useful, and that our likings and tendencies must have been developed to like and appreciate things only because they were useful in the first place, but that the likings and tendencies remain long after the disappearance, owing to change of environment, of the particular objects—at all events, as useful objects—upon which they were formed, and thus they come to form the tastes which seem so inexplicable, and in their later forms have, in a great majority of cases, no

perceivable relation to the useful. Thus there is a tendency to deny the connection to which the faculty owes its very existence — a phenomenon common to the other instinctive emotions when they reach the region of the ideal. If we realise this, we can keep clear in our minds the connection of beauty and utility without wishing to maintain that it is in its essence nothing but the expression of a moral or practical good, however much such a view appeals to people of a certain temperament. The direction in which the particular form will be varied will not necessarily lie in the direction of present utility, but in the direction in which lie our æsthetic tastes; certain features or certain appearances appeal to our innate tendencies, and these are selected. The practical man, looking at an object to improve it, regards it entirely from the practical side, with a view to further utility; the artist dwells on those features of it that are agreeable, and, in idealising it, those are the points with which he will deal. The artist is always, often perhaps unconsciously, looking for the possibilities of beauty everywhere.

"For this reason the world is so much more beautiful to a poet or an artist than to an ordinary man. Each object, as his æsthetic sense is developed, is perhaps less beautiful than to the uncritical eye; his taste becomes difficult, and only the very best gives him unalloyed satisfaction. But while each work of art and nature is thus apparently blighted by his greater demands and keener susceptibility, the world itself, and the various natures it contains, are to him unspeakably beautiful. The more blemishes he can

see in men, the more excellence he sees in man; and the more bitterly he laments the fate of each particular soul, the more reverence and love he has for the soul in its ideal essence. Criticism and idealisation involve each other. The habit of looking for beauty in everything makes us notice the shortcomings of things; our sense, hungry for complete satisfaction, misses the perfection it demands. But this demand for perfection becomes at the same time the nucleus of our observation; from every side a quick affinity draws what is beautiful together and stores it in the mind, giving body there to the blind yearnings of our nature. Many imperfect things crystallise into a single perfection. The mind is thus peopled by general ideas, in which beauty is still the chief quality; and these ideas are at the same time the types of things. The type is still a natural resultant of particular impressions; but the formation of it has been guided by a deep subjective bias in favour of what has delighted the eye."[1]

[1] "The Sense of Beauty," p. 122. G. Santeyana (1905).

CHAPTER IX

IMAGINATION

THE imaginative faculty is very generally looked upon as in some way peculiarly belonging to art and æsthetic feelings, so that by many people, who let their attention dwell too exclusively on its fanciful side, and its aloofness from useful and practical work, the imagination is apt to be regarded as a delightful adjunct to life, belonging rather to the region of unreality and make-believe, than to the prosaic needs of everyday life. Although its importance in the æsthetic field cannot be over-rated, it is not one whit less useful in every other walk in life. If we confine our attention merely to the vagaries of imagination, and choose to disregard its highly important intellectual functions, we fall at once into a complete misapprehension both of its nature and use. For when duly controlled by reason, imaginative activity not only leads on to the grasp of new facts, but prepares the way for the higher processes of thinking. If we had not this power our reproductive memory would merely repeat or reproduce things, always in the way and in the same connection that they had occurred, and progress would be slow or impossible. It is the disciplined imagination of the man of science

that enables him, as it were, to throw his mind in advance, suggesting a theory the logical support and proof of which may take years of investigation, but without this imaginative insight the investigation would be aimless and wanting in definite direction. Where reason and deduction fail, imagination steps in, and is often the means of suggesting a truth that may not become scientific fact for centuries. Ruskin shows how the very relativity of knowledge is a strong proof of the value of the imagination. The higher one's conceptions reach, the more subjective they are; our highest ideals, those of God, are necessarily the work of the imagination in its noblest form.

"No man has seen God at any time; so the same faculty which may be abused to create a lie must be used to discern a truth."[1]

In this sort of broad meaning imagination becomes belief, the intuitive grasp of universal truth, or at least truth for the person who is prepared to accept it and prove his belief by action.

In religion and art we cannot attempt to prove our imaginative insight by any strict process of reasoning, for we are dependent upon imagination alone as soon as we leave the firm ground of sense perception, so we trust the imagination when it tells us things that we find ourselves ready to believe; though these ideas are, of course, modified by the reason as far as it will go; we test our imaginative creation by the analogy of things that we know, and in this way to a large extent judge of the value

[1] "Modern Painters," v. 9.

of the idea. In religion, where such imagination carries with it the implication of absolute truth, it is described as revelation. Faith and the theories of life of the philosopher if accepted, and of real influence upon their actions, are forms of imagination believed to be true, not because they are capable of scientific demonstration, but because the man to whom they bring the sense of conviction, and who lives up to them, is actually aware of an effect upon himself, in some new moral energy, some new warmth of meaning in life, by which they prove, to him at least, their divine origin. When some idea or conception strikes home with this "emotion of conviction," as Bagehot described it, argument and proof are superfluous; the notion carries with it testimony of truth, as the prophecy in "The Lady of the Lake" bore its own guarantee by the very vividness of the vision.

> "At length the fatal answer came,
> In characters of burning flame,
> Not writ in words, nor blazed on scroll,
> But burnt and branded on my soul."

We have already considered the simple reproduction of past impressions, experiences, ideas, in what are called representative images, which were, for the sake of simplicity, considered as mere copies of the previous sensations; but by imagination in the ordinary sense of the word we mean more than this—we combine parts of different sensations to form new wholes. If we imagine a place about which we have read, or some event in the future, we go beyond any actual experience, and the images

of memory are in some way transformed, modified, and recombined in a novel aspect. This process is often called constructive imagination, in order to distinguish it from the simpler form, though it is obvious that no hard and fast line can be drawn between the two.

In the earliest stage we find simply the passive imagination of merely formal representation described above, which soon passes into creative imagination. In a simple form this may take the form of illusion. The experience of the external sense is modified, or transformed, by the construction put upon it by the mind. In such cases belief in its reality is naturally present, since no distinction can be made. The imagined form is, as it were, directly perceived, and has the same effect as if it were real. Perhaps the earliest stage of imaginative creation proper lies in animism, in the propensity to attribute life and personality to everything. This seems a stage, peculiarly strong in children, which has to be passed through by every one, and is long or short according to individual character. To this is due the growth of myth and the anthropomorphic interpretation of nature of early savage races. It is clearly inadmissible to think of early races inventing their mythology as a kind of allegory of the effects that they observed in nature. Their interpretation was spontaneous; the presence of the gods was a literal impression. Superstition arose from incapacity to discriminate the objects of the imagination from those of the understanding. Imagina-

tion is not to be blamed for superstition. Men were superstitious, not because they had more imagination in those days, but because they were not aware that they had any.

The mental processes, as we have already seen, can always be paralleled by a similar physical process. What, then, is the physical parallel to the creative imagination? Probably the best way to find an answer to this question will be to inquire how far, or in what form, imagination can be said to exist in the animal kingdom. We have already emphasised the important part played in all process of thought by movements, and psychology at the present day recognises that the idea of a movement is, as it were, a movement begun, and that representations include motor elements, because all representations are remnants of past perceptions, and perceptions presuppose movements to some extent. It is this motor element that tends to cause an image to be externalised, or objectified outside ourselves. Now all imagination is teleological; it has an end in view. We want some thing, whether we are inventing a fairy tale, or a theory to explain the movement of the stars.

Professor Ribot[1] draws a suggestive parallel between voluntary activity and creative imagination, pointing out that imagination, in the intellectual order, is the equivalent of will in the realm of movements. This he justifies by a process of reasoning somewhat as follows: growth of voluntary control is progressive, slow, and liable to

[1] "An Essay on the Creative Imagination," p. 9 (Trans.), 1906.

frequent check. The individual has to become slowly master of his muscles. Reflexes, instinctive movements, and the motor manifestations of emotions provide the material for voluntary movements. The will does not inherit any movements; it has to co-ordinate and associate, which it can only do by dissociation of previously experienced movements which it recombines: it has to win its own right to rule. In the same way the creative imagination does not appear complete. It begins with images simply repeated, becoming more complex as it develops. Another strong point of resemblance lies in their subjective character. Imagination is personal—its movement is from within outwards, thus contrasting with intellect, which is objective, impersonal, receiving from outside; for intellect, it is the outside world that directs. For the creative imagination and the will it is the inner world that dictates the course; the inner, *my* world of my imagination, as opposed to the world of others, of the understanding. Imagination and will have one end or one purpose in view—act only with a view to some end; the understanding, in its restricted sense, notes facts and is satisfied with proofs. We are always wanting something, and our imagination is always at work to gratify it.

This suggestive analogy between the will and the creative imagination need not be pushed further, but it serves to emphasise the great part played by the motor elements. We have already, in an earlier chapter, tried to show the importance, or rather

the essential nature, of the motor manifestations as the very basis of feelings and tendencies, and the part played by motor sensation in incipient movements is the idea. If, then, we analyse the cause of the creative imagination, we shall find it ultimately in the needs, tendencies, desires of man's nature, which, in their earliest manifestations, are expressed in movements or tendency to movements. These are the stimuli. The possibility of creation lies in the spontaneous revival of images. In those animals endowed only with simple memory any sensation from without will bring into consciousness former experiences—*i.e.* reproduction without new associations. But in human beings from about the second year, and, perhaps, in some of the higher animals, we get a further stage, in which there is what may be called a spontaneous revival, in which ideas come together without any apparent antecedent. Ideas work in some latent form by analogy and subconscious elaboration, which, grouping with new associations, form the elements of the act of creative imagination. So far we may be fairly certain in attributing imagination to animals. The fact that dogs and other animals have dreams, and at times even appear to be subject to delusions when excited, is sufficient proof of this. But when it comes to attributing to them the power of active synthesis, of intentionally reuniting images to form novel combinations from them—*i.e.* true creative imagination—we must, I think, conclude that such a faculty is very slight,

if existent at all. As Romanes points out, abstraction is a necessary preliminary to creation, and that without language abstraction is very weak.[1] We have already seen that there is little, if any, ground for attributing to animals the power to form concepts. Their power of creative imagination, then, is in exact ratio to their power to dissociate qualities.

But while we must deny imagination in its true sense to animals, there is, as M. Ribot points out, one direction in which they do display—if not creative imagination—at least creative power, or invention, of a kind which we may call fancy. This is purely motor, and shows itself in play. The movements of animals are very numerous, they are often new and continually varied. Here we have imagination acting in an almost purely motor character; it consists of ideas or images, of movements, that are perhaps hardly conscious, being immediately translated into movements. Nor need we see any difficulty in dissociating, or splitting up the elements or parts of the movements to form new combinations, for in bodily activities the mere wish or idea of a movement is sufficient, the necessary muscular adaptations following unconsciously. We see also in children how the predominance of the motor system tends to make them at once translate ideas into movements. As long as creative imagination or invention is confined to movements, we may credit the higher animals with it. As Mr. Hobhouse puts it, speaking of animals:—

[1] "Mental Evolution in Man," chap. x. (1888.)

"Imagination, if it can be said to exist, takes the form of immediate frolicsome action." [1]

All constructive or creative imagination consists in modifying and recombining sense experience; whether we are dreaming the wildest impossibilities of delirium, picturing the North Pole or the Sahara, or fancying ourselves back in the middle ages, we have nothing from which to form our mental pictures but portions of sense experience. It is, then, fairly obvious that two processes are necessary: in the first place, dissociation, or the separating up into components; and secondly, a process of combination. We can take the head of a man, and in imagination put it on an animal, talk of mountains of gold, invisible men, &c., just as in muscular experience we can dissociate customary movements and form new combinations, to imagine ourselves flying, and so on. Of course, all these processes of separation and recombination are limited; very closely knit associations are difficult to break up. Total impressions, of which the elements have never been separately sensed, are often impossible to dissociate—it is scarcely possible to imagine a solid body which could be felt but which was completely invisible; many things can be imagined with difficulty, *i.e.* visually realised, such as the fact that the dwellers in the antipodes are walking head downwards relatively to ourselves.

It is the power of dissociation that is of the greatest importance for imagination; a too complete repetition in memory is a hindrance to creation,

[1] "Mind in Evolution," 1901.

so that too good a memory may be a disadvantage to creative thought. Just as ignorant and intellectually limited people, in giving an account of an occurrence will invariably repeat the whole story verbatim each time, important and unimportant points, all on a dead level; they cannot select. Such minds are poor in inventive capacity. The useful memory holds the interesting; it is not systematised in the kind of routine form that has to repeat a whole poem to get at one line; its ideas are in small, readily detachable, groups, plastic and easily combining in new forms.

Active production takes place by the regrouping of the dissociated elements, which may be done in various ways:—Association by contiguity reproduces the order and connection of things according to the habits of the nervous system: Association by resemblance—one thing may be more or less like another, or may be recalled in conjunction with it from the mere accident of having been present in consciousness at the same time. But the essential, fundamental, element of the creative imagination in the intellectual sphere is the capacity of thinking by analogy—by partial, imperfect, accidental, resemblances. Through its almost unlimited pliability, its unstable, ever varying processes, analogy can equally give rise to original and valuable invention or the most impossible absurdities. The process is so arbitrary, capricious, and open to all kinds of influences, that it is impossible to formulate any law or order in the method of its working. We see it at work in the early myth, in at once attributing

feelings and desires to anything, that can in any conceivable way be supposed to have any connection with them. The wind, the trees, the rivers all show movement—a sufficient suggestion for the sense of analogy to see life. Using analogy as meaning some kind of resemblance, there is obviously little that would not be covered by it. Quick imagination lies in this power of rapidly seizing upon resemblances, and if the person is also endowed with a temperament of a rational and exact nature, he will follow up the suggestions, tracing them out, establishing the fitting and the congruous; eliminating the inconsistencies until a logical and rational end has been achieved. In this sort of way it often happens that imagination is a substitute for reason as well as the provider of materials. In a person of a different temperament the fanciful analogy will lead to imaginative ideas and scenes which may form the basis of stories or works of art.

The influence of the emotional state upon the imagination is patent and obvious; it is indeed the very basis, and without it no creative imagination would take place. However apparently cold and calculating intellectual imagination may appear to be, there is indisputable evidence that all forms of creative imagination involve elements of feeling. For all invention presupposes a want, a tendency, an unsatisfied impulse. The work itself is, broadly speaking, accompanied by feelings of pleasure, and if thwarted, by discomfort, slight though the feelings may be. It is, of course, more obvious in the various forms of æsthetic creation, because in

these the feeling produced is the important matter, while in ordinary invention it is so complicated by the meaning and ultimate use of the product, that the feeling tone is apt very often to be overlooked. Common experience is sufficient to prove that all emotional dispositions influence the creative imagination. As we have seen, the main influence in determining what memory shall retain is interest, so that the very material upon which imagination is to work is already selected by our innate dispositions. Naturally the imagination will again accentuate the points that we care about.

Another interesting way in which the emotional factor works is shown in the fact that representations that have been accompanied by the same emotional state tend to become associated simply through the emotional resemblance. We have already mentioned this in speaking of the analogous phenomenon of coloured hearing.

An important point in reference to the emotional factor in imagination should be emphasised here. We have already seen how, at the bottom of the feelings and emotions, beyond and more fundamental than the agreeable and disagreeable states of consciousness, lies the motor element—the tendency to, or away from, which is the very basis of development; and it is in the gratification of these innate tendencies that we find the spur to the creative instinct, and creative instinct springs directly from this motor element. We have already discussed the question of the constructive or creative instinct in one more or less limited

sense; here we mean it in its widest significance, in the sense of getting or trying to get, whatever is desired. To talk of a creative instinct, as such, is more or less meaningless; it must be devoted to creating something, and that something must be desirable—any of our needs, tendencies, or desires, can cause or call out a creative act—each instinct, for food, water, sex, has its appropriate object. The preservation of life may produce innumerable instinctive creative acts, each of which meets some need. All the available faculties will be called into use to try and provide for the needs or tendencies; but were men devoid of feelings there would be no creation, for there would be no pleasure in the result. The needs by themselves are of course powerless; no degree of hunger will provide the ingenious means for satisfying it, in the absence of the cerebral control and reasoning faculty, if circumstances are sufficiently difficult. There must be first a need; secondly, the combination of images, ideas, dissociated elements of experience, which will be recombined and objectified in appropriate form or action. So it is that resourcefulness; the ability for far-seeing, prudent action; forecasting probable events, and thus the ability to take full advantage of them; avoidance of risks—in fact, all the qualities that go to make up the wise and clever type of man—lie in a wide well-developed imaginative power, controlled by rational deliberation and critical acumen. The imagination will suggest every conceivable contingency, the reason will weigh their relative likelihood and importance.

M. Ribot[1] divides all the work of the imagination under the two heads of æsthetic and practical; this division depends upon the idea that art has its beginning in superfluous activity, first shown in the form of play, a view which we have tried to prove untenable; but in spite of this division, he shows clearly that there is no difference in the psychological mechanism. This fact is surely too obvious to require proof, the useful creation of one generation is often merely an æsthetic pleasure to a later The work of the imagination is primarily useful even the creation of myths, and religious conceptions, and the first efforts at explaining the world around arise from a pressing need. Man has to act in reference to the apparently higher powers that he finds around him, and so he imagines ways and means by which, if he cannot subdue, he may at least conciliate and turn them to his service. The fanciful answers to primitive curiosity were thought to be intensely practical. There is no need to draw any line of separation; all kinds of invention and creation are the work of the imagination oriented according to the individual character, leading some to mechanical, financial, and scientific branches, others to painting, poetry, or music, and so on.

So we find the imaginative faculty, when allied with a clear, logical temperament, likely to develop in the direction of scientific or useful invention, although in certain phases and periods of art the clear-cut, accurately defined images and definitely

[1] "Essay on the Creative Imagination," 1906.

realised forms show a highly disciplined and controlled imagination. As the intellectual control gives way to the emotional feeling, we find a tendency towards the vague, the indistinct, and the suggestive, until we reach a stage usually described as mysticism, in which everything becomes ambiguous, obscure, symbolic. Some aspect of a thing, important or not, comes into relief, not because we recognise its importance, but arbitrarily selected, because it has an instant appeal by the pleasure it affords. Such forms have no part in the regions of practical life, where vague images and approximate suggestions have to be rigorously eliminated; but in the domain of the romantic and fantastic, and especially in the production of mythical and religious ideas, it has a vast field for its exercise.

The mystical imagination represents invention in its purest, most untrammelled form; it rests upon feeling and imagination, which then represent, or rather replace, the intellectual faculty. The mystic, as a rule, regards the experiences of sense as vague illusions, or at best as giving suggestive hints of the true reality; perception, therefore, is of little value; reasoned thought and scientific deduction is a snare; the truth is, as it were, felt, by a kind of construction in images, to many of which no words, or at least no adequate description can be given. The chief principle of the mystical imagination is the tendency to find or locate something of the ideal in the sensible—to discover a message or a meaning in every occurrence, inexplicable rela-

tionships in common phenomena; to feel that there is in all things a supernatural principle that is always expressive if the mind can only penetrate to it. To put it shortly, everything is or may be a symbol, and mysticism is, as it were, thinking symbolically.

Concrete images are transformed into symbolic images, and so used; this process is extended to perception of all kinds, so that any form of nature or art takes on an added value as a sign or a symbol. To a certain degree, of course, all art is symbolic and we have already dealt with the question of the indefinite in relation to beauty, but we are now considering the somewhat exaggerated degree usually known as mysticism.

We find among certain nations, certain individuals, or even in certain periods, that both in literature and art vague forms and suggestive but indeterminate shapes have been preferred to more precise delineation. This form of art cares nothing for clear and exact representation of the existing world of reality; it aspires to record the subtle fleeting shades of feelings and ideas, the true inwardness of the soul. Consequently, in their works, whether in words, in plastic art, or in paint, everything seems to float in the dim incoherence of a dream—things happen in no actual period of time, in no existing place—it is, as it were, an attempt to get the freedom from particularity that music has. Words to the symbolist suggest an emotion, not a definite idea: thus a word must, as far as possible, be deprived of its intellectual

association, of its customary meaning, and the significance formed by habit. This can only be accomplished by using it in some unusual way, or in such a combination that its ordinary acceptation is no longer possible; the sense of strangeness gives a vague and mysterious suggestion; precision is lost, and the mind of the reader can wander free among any images that may be aroused. Such poetry is pronounced unmeaning nonsense by one; to another, with a wide, discursive imagination, numerous odd unthought of ideas arise, and he finds it full of deep suggestion. This process of attempting to deprive words of all definite meaning, leaving them only an emotional significance, ends in turning the poetry into a beautiful rhythmical utterance, with musical qualities, but with all meaning eliminated; it becomes only sound, and as such, inferior to music. The resulting obscurity and unintelligibility, whether in poetry or painting, is, as a rule, an inseparable part of mystic work; so much so that it has become, as it were, a criterion or essential sign. This is due, as M. Ribot[1] shows, firstly, to the fact that mystical imagination, being guided solely by the logic of feeling—*i.e.*, subjective—is likely to be full of gaps, jerks, and sudden transitions, difficult for another to follow; secondly, it makes use of the language of images, which are subjective symbols—that is to say, he uses as signs or symbols words or forms that have already a fixed and universal meaning, but in a sense entirely his own; he is apparently speaking a common

[1] *Op. cit.*, p. 224.

language—really it is a tongue of his own fancy. It is not surprising that it is difficult to understand.

As this mystic or symbolic view of things becomes exaggerated, it leads its votaries into curious absurdities. Analogy and symbolism are pushed to extremes. Earnest students, in a kind of madness of belief in the sacred character of the Vedas, the Bible, the Koran, having lost all sense of the distinction between literal and figurative sense, set to work with a freedom as great as that of the early inventors of myth. Individual letters and words are endowed with mystical significance; no extravagance is too great; the meaning of the whole sentence is one thing, the meaning of the units another. The first and last letters of the words, the number of the words in the sentence, the number that corresponds to the letter in the Hebrew alphabet, there is nothing that has not been strenuously asserted to have a mystical message. Sacred numbers with marvellous meanings are always turning up in the old oriental religions, the number of letters in the name, stars millions of miles apart in space form a system that contains the future of an individual to any one who can read it, and so on.

Mysticism arises probably—given a person of the right temperament—from a belief in the absolute, combined with a strong feeling of the relativity of the data of human knowledge. For if the material upon which reason is to work be rejected as subjective, neither the senses, nor the understanding, nor all the vast superstructure raised by learning,

reason, or imagination must be allowed to delude us; the only safe path lies in abstention from all reasoning at all; the thoughts must be kept constantly upon the truth that everything is nothing in comparison with the one. Argument with one who is thoroughly imbued with the real feeling of mysticism is obviously futile; facts cannot arouse him, for he does not deny that we see them: reason cannot convince him, for reasoning is a human and therefore finite faculty, which is pretending to a validity which it cannot prove.

"The ideal of mysticism is, accordingly, exactly contrary to the ideal of reason; instead of perfecting human nature, it seeks to abolish it; instead of building a better world, it would undermine the foundations even of the world we have built already; instead of developing our mind to greater scope and precision, it would return to the condition of protoplasm—to the blessed consciousness of Unutterable Reality."[1]

While the crudity and absurdity of an exaggerated mysticism are patent, we can fully appreciate the immense influence that it has in stimulating all forms of art by its fascinating suggestion of the mysterious and the unseen, the emphasis on the importance of something besides the material that appeals to sense. It is just as absurd to condemn, with Dr. Nordau, every sign of mysticism as proof of degeneracy and incipient insanity, as to accept the ravings of mystics who really are insane as being necessarily wonderful because we are unable to understand them. The right touch of mystical

[1] "Interpretations of Poetry and Religion." G. Santeyana. 1900.

imagination will give us that sense of something beyond, which adds a feeling of depth and worth to the everyday world; a refreshing sense of inexhaustibility to our surroundings; a wholesome corrective to the feeling of knowing the reason of everything that an incomplete knowledge of science is only too apt to induce.

CHAPTER X

INSPIRATION

THE fact is well known that, in the case of certain persons, or at certain times, the act of creative imagination is accompanied by an emotional crisis, the principal characteristic of which is perhaps suddenness; an idea or set of ideas arises in the mind, already complete, formed, as it were, without any conscious effort or even intention, with a sense of its being impersonal, a revelation from outside.

"With Chopin creation was spontaneous, miraculous; he wrought without foreseeing. It would come complete, sublime."

These sudden moments of creation we call inspiration.

It is hardly to be wondered at, that primitive peoples attributed such sudden, overpowering flashes of insight as due to a direct inspiration of the gods, as the Greeks to Apollo, or in the middle ages to supernatural agencies, spirits, angels or demons, even a modern poet may invoke the muse to inspire his song, clinging to the old tradition. We are still far from any complete scientific explanation of this state, and speak of it in various terms that still suggest abnormal, if no longer super-

normal, qualities. It appears so far removed from the ordinary processes of reason and consciousness, it is not under the control of the will; it is capricious, appearing unexpectedly, not when wanted —we can no more summon it than we can sleep and dreams; its comparatively rare appearance and often overmastering strength all combine to invest inspiration with characters that suggest interference from another world. Lately the idea has been gaining ground that the phenomena of inspiration, sudden religious conversion and other analogous forms of interruption of the conscious life, are due to an irruption into consciousness from the subconscious mind. The relation of the subconscious faculty to revivalist conversion and the revelations of religion has been very suggestively worked out by Professor James.[1]

One result of this line of thought has been a tendency to invest the subconscious mind with a halo of sanctity; it becomes elevated into a position of extreme importance as the channel of communication with the unseen and higher powers of the universe. In fact an explanation of the more complex higher psychical qualities is, by one class of thinker, satisfactorily found by postulating all sorts of wonderful qualities and powers in the subconscious mind. For example, Dr. Campbell, in his "New Theology," explains that subconscious mind is the means by which the immanence of God is perceived by humanity.

The spirit world was supposed by the late Mr.

[1] "Varieties of Religious Experience," 1902.

L. H. Myers to reveal itself to mortals through the same channel. Any one who accepts the view that the beauty we feel and know consists in glimpses of an absolute ideal, which we get in favoured moments, might similarly accept some such transcendent quality of the subconscious as the means by which we discovered beauty. We have already tried to show what a large part is played by the subconscious mind in giving the feeling of beauty by combining a number of impressions and memories below the threshold of consciousness.

The part played by the subconscious processes of the mind, and the somewhat unbalanced mental conditions that do at times accompany imaginative creation are of such importance in all questions of artistic endeavour and enjoyment that we must consider them with some care. It must at first sight be obvious, that a life devoted exclusively to the stimulation of the emotional and imaginative functions, such as that of the artist, would lead naturally to a certain degree of eccentricity, because it would increase the tendency to give way to the sway of the emotions in preference to reason. The artistic nature is, not only by temperament, but by training as well, likely to be of more unstable mental equilibrium than those whose lives have to be completely governed by matter of fact. In order to get some idea of the working of sudden inspiration, we shall do well to consider it in somewhat exaggerated examples, because we are more likely to find the constructive imagination in its most obvious and untrammelled form. The ordinary painter, working

on lines taught to him by others, or handed down by tradition, and keeping to fixed forms by imitation, will not help us much. Those for whom art is an acute fever; the genius who makes the pattern, and strikes out a new path—the leaders; they are likely to show the well-marked signs of the sudden inspirations of genius for which we are looking—the exalted emotional sensibility, the abnormal psychical visitations, visions, and trances, which often mark the sudden outbursts of creative imagination.

Such peculiarities, unless they can show results of value, are in the ordinary person classed as pathological, and indeed are so. The fact that it is possible to show that in many men of genius there are certain abnormal qualities has been seized upon as a basis for a theory, and certain recent writers have tried to prove that genius is bordering upon insanity. "Genius," according to Dr. Moreau, "is but one of the many branches of the neuropathic tree." Dr. Lombroso has written a book in order to prove that genius is a symptom of hereditary degeneration of the epileptical variety, and is allied to moral insanity. In a book published a few years ago, Dr. M. Nordau[1] tried to show that all forms of art were a form of degeneration, and by showing that men who were in some way diseased were capable of producing works of genius, proceeded thereupon to impugn the results of genius and to depreciate the value of their work.

In an earlier chapter we were at great pains to

[1] "Degeneration," 1895. (Trans.)

emphasise the close dependence of mental states upon bodily conditions, and this psycho-physical connection has been so far established that we are most of us ready enough to discount people's views in terms of their bodily condition; we attribute the pessimism of one to bad digestion, the incurable optimism of another to his physical health; we trace the source of a passionate religious feeling to a life starved of legitimate objects of emotion; but although we thoroughly and completely accept this principle, we must take care to avoid falling into the vice of what Professor James[1] has happily described as "medical materialism," if, as he says, this is not too good a name for a line of thought whose chief fault is narrowness and the vice of little knowledge.

"Medical materialism finishes up Saint Paul by calling his vision on the road to Damascus a discharging lesion of the occipital cortex, he being an epileptic. It snuffs out Saint Teresa as an hysteric, Saint Francis of Assisi as an hereditary degenerate. George Fox's discontent with the shams of his age, and his pining for spiritual veracity, it treats as a disordered colon. Carlyle's organ-tones of misery it accounts for by a gastro-duodenal catarrh. All such mental over-pretensions, it says, are, when you come to the bottom of the matter, mere affairs of diathesis (auto-intoxications, most probably) due to the perverted action of various glands which physiology will yet discover. . . . And medical materialism then thinks that the spiritual authority of all such personages is successfully undermined."

We may accept fully the assumption involved in

[1] "Varieties of Religious Experience," p. 13.

the above that there is not a single one of our states of mind, high or low, that is not conditioned by the state of the organic processes; but does the condition under which the thought was evolved tell us anything as to its real significance? The imaginative theories of science are as fully coloured by organic conditions as those of art or religion, but we do not ask for the conditions under which they were evolved in order to judge of their merits. To some people religious conversion is worth nothing unless accompanied by a sudden crisis of emotion in which the truth is really felt; the poetic frenzy seems to add a lustre to a poet's work—it seems to be a guarantee or sign of intense feeling. We do attribute superiority to certain states of mind or feeling as being higher than others, but our judgment has nothing to do with the organic conditions. The reason of the difference lies entirely in the result, as judged by our delight in apprehension of it, or our reasoned conviction of its ultimate value. The feverish brilliance that sometimes at night seems to solve many a difficult problem is praised if our calmer reason the next day can approve; we do not put it down as necessarily valueless if we afterwards find that our temperature may have been 102° or more when it burst upon us. We have already tried to show that the present dignity and value of our intuitive desires is absolutely independent of their origin; no matter how lowly the source of the tendency, the idealised conception is none the less sublime. So with our inspirations—no matter the bodily condition under which they

are produced, it is the discrimination of the feelings and the reason which ultimately decides their value.

No doubt we may scrutinise the origin as one of the factors in deciding upon their worth, and shall therefore be influenced to some degree thereby. But if some new idea is produced which makes a real living difference to us, the idea is of that much value no matter how originated. In moments of mental excitement we produce many glittering notions and conceptions, but we have to wait the test of reason and subsequent effect in order to decide whether they are gold or alloy. Thus we come back to the general principles which empirical philosophy has always shown must be the ultimate criterion in the search after truth, *i.e.* the general consensus of reasoned opinion. Many forms of religious and dogmatic philosophy, in their desire to find a test that shall be an immediate touchstone of truth, without waiting for the future to decide, have found in "origin" the proof they desire. Revelation, visions, dreams, possession by the spirit in prophecy, and so on, have all been invoked as a warrant for the truth of the doctrine or revelation put forward by various founders and teachers of religion — just as the apparent truth of the oracle at Delphi was, so to speak, guaranteed as genuine by the ecstatic trance into which the priestess was thrown.

Among the visions, and trances, and assertions of supernatural revelation, however, it has often happened that some were too patently worthless

to be regarded as divine; and history is full of elaborate attempts to find some method by which true and divinely-inspired raptures could be discriminated from the counterfeit presentment sent by the evil one. In the end it had to come back to judgment by results; 'by their fruits were they to be known.[1] If, then, we are to place no reliance upon origin as a proof of worthlessness or of value, we must, in either case, simply take it for what it is worth, considering the question of origin, for we cannot overlook it merely as one of the factors in forming our opinion. We can therefore proceed to consider the question of inspiration, and the raptures and emotional excitement of the creative artist, undeterred by the fear that a morbid condition, or abnormal development, will be considered necessarily to detract in any way from the value of the productions.

That Napoleon was an epileptic was of small comfort to the general whom he had outwitted by a brilliant inspiration in tactics; nor does it matter if many cases of brilliant genius are accompanied by certain forms of emotional excitement that at times seem near insanity. Dr. Nordau, in a torrent of angry invective, classes artists—except, perhaps, a few of a very simple kind—as degenerates, pathological monsters, holding up any parts of their works that seem particularly marked by exaggeration to a fierce ridicule by which he tries to condemn all their productions. Indeed, so far from

[1] See "Varieties of Religious Experience," pp. 18–20. Professor James.

judging by results, Dr. Nordau claims that origin is actually the only true test :—

"Thus this book is an attempt at a really scientific criticism which does not base its judgment of a book upon the purely accidental, capricious, and variable emotions it awakens—emotions depending upon the temperament and mood of the individual reader—*but upon the psycho-physiological elements from which it sprang.*" [1]

Also he points out that the critic trained exclusively in literary and æsthetic culture is obviously the worst possible guide owing to his necessary ignorance of the pathological character of the works of degenerates. Foolish critics there may be who proclaim as beautiful what is only unintelligible, and many people there will be who persuade themselves that they see marvellous beauties in things that are either repulsive or commonplace. But to make these representative of all art, and then to claim that we are not to judge of a work of art by our emotions, which are the only possible criterion of "value"—*i.e.* what is really a good for us in art—is to maintain an obviously impossible position.

But both in Dr. Nordau's "Degeneration" and in Professor Lombroso's "Man of Genius" this exaggerated side of genius and morbid development of art is far too much insisted upon, and the examples of famous, or rather notorious, men are selected as much for their striking eccentricities as for the greatness of their productions. There is, too, no definite direction of abnormality.

[1] "Degeneration" (1895), Introductory Dedication to Professor Lombroso. Italics are ours.

We find in Lombroso that great creative artists are very tall or very short, strong or puny, deformed or handsome, slow and late in developing or unusually precocious, morose and misanthropic or cheerful and too much addicted to pleasure. What it amounts to is that men already marked out as different from the general run of men, by their superiority in one line, are likely also to differ in others. If we wish for creations that are to make a greater appeal to our emotions than we are capable of making for ourselves, we must find them in those of a more highly strung and emotional temperament, in those who are capable of seeing beautiful relations strongly enough to record and show them to us, who require to be told how to see, and can only perceive them when thus set out. This may result in, or even necessitate, what are called pathological conditions, reaching, when exaggerated, to insanity, just as, in the opposite direction, commonplace stupidity may descend to imbecility. It is only reasonable to suppose that a great development of the brain in one direction must be, in many cases, at the expense of other qualities. If we can imagine some despot breeding men, as we breed animals, he would breed for genius by selecting the emotional temperament and the imaginative brain in order to accentuate those features, while attempting to keep strength of reason with freedom of imagination. The most emotional would be likely to develop talent and genius in the more emotional of the arts, such as music and poetry, in which branches the greater

number of the examples of exaggerated emotional excitement are found.

We must also remember that appreciation of art requires the same qualities in a lesser degree that the creator possesses, so that, whether lovers of beautiful art or creators, there are few of us who will escape if we accept Dr. Nordau's dictum that "art is the slight beginning of a deviation from complete health." At all events, we may be glad of so good a reason for the want of complete health, which may be said among civilised nations to be universal. In any case such a statement is ridiculous when one looks back at the story of art, and its immense influence as a teacher and a civilising agent from almost prehistoric times, and the fact that, as a rule, art is most flourishing in the most virile and progressive periods of a nation, still more to those who believe that in taste we are appealing to old instincts developed in the struggle for existence. We might with equal truth say that to fall in love was a deviation from complete health, because some, or many, people commit foolish excesses and do foolish things from love. If we look at no works of art or genius except those that bear some taint of exaggeration in meaningless excitement, it is not difficult to believe that it is merely a sign of pathological mental conditions that should be promptly and effectually put an end to; but to condemn the whole domain of art because there are in it a large contingent of melancholiacs, hypochondriacs, and persons subject to hallucinations and periods of undue emotional excitement, is as

unnecessary as it is to condemn all religious feeling because the passionate resolutions wrung out of excited converts at a revivalist meeting are not always followed by consistent right living.

There is no special connection between eccentricity and easily excitable natures and a well-developed intellect, for as a rule people of this type are apt to be intellectually feeble. There is, however, no doubt that such a form of psychopathic temperament does carry with it to an unusual degree the faculty of doing things and so achieving, if not glory, at least notoriety. The very ardour and excitability of character and the emotional susceptibility tend to bring ideas home with a force that leads to instant action. An attractive conception becomes at once a belief and is acted upon, reason being held in abeyance under the sway of the emotions—to think a thing worth doing is to start instantly upon it; their ideas possess them; good or bad, they must put them in force or die. Such a temperament, coupled with a fair intellect, will come before the world, whereas a hundred far cleverer men, lacking this emotional impulse, will pass unnoticed, and the very exuberance and intensity of this feeling, and its accompanying cranks and whims, will force public attention to them, and thus help to provide examples of the insanity of genius.

Two qualities especially characteristic of inspiration are—firstly, the suddenness of the effect; there may, or may not, have been long periods of thinking over and brooding upon the question, though

this is a very usual preliminary, then, when the mind is perhaps turned to something else, the answer or result seems to come with a flash: secondly, the feeling of impersonality, to which attention was drawn above; there is in nearly all personal descriptions of inspiration a strong insistence upon the feeling of some other power superior to the individual, strange and unknown, using him as a tool; he seems to be, as it were, a passive spectator of some astounding process performed through him from outside, and it is common to find the assertion on the part of the producer that he had nothing to do with it. We must notice here that it is easy to find every gradation of the process, from a simple good idea that flashes suddenly into the mind, up to the complete state of rapt ecstasy in which all power of control and reason is in abeyance. Again, such states are not peculiar to art creation; in great inventors, great leaders, and, above all, the founders of new religions, and their inspired teachers, we find the same phases; generally there is the time of doubt, of intense thought and anxious study, then a quiescent period of varying length, followed by the crisis, the flash of inspiration, in which the secret is revealed, and a new truth, a new view of life, a great creation, is suddenly laid before the astonished recipient. Theology, combining with these apparently supernatural manifestations, the ideas of grace and election, accounts for the result by supposing that the spirit of God is particularly present at such times.

Professor James has discussed and described the religious aspect of inspiration in his now classic work, "Varieties of Religious Experience," in which there can be found a copious store of illustrations. The parallel between the description of their feelings given by great artists in the moment of creation, and those of religious leaders originating new doctrines, or new aspects of old truths, is curiously close, and to any unprejudiced observer the process is psychologically identical. It is unnecessary to transcribe at length any examples; the evidence of the existence of this real, definite overwhelming of the conscious life by something that in moments of inspiration of any kind seems to come in and take possession of the whole being, is well known.

Unless we are prepared to admit, for all these sort of activities and effects, a supernatural origin, we must accept in some form or other the theory that they are due to a subconscious mind process, or unconscious cerebration; though it is natural enough that any one who has passed through this overmastering experience should look upon it rather as something miraculous than as a natural process.

An interesting point arises here—Are we to consider that there is some special virtue in this sudden complete invasion? Is a work of art that is the result of slow and painful effort something different from, and perhaps in some way inferior to, the startlingly instantaneous product of inspired frenzy? Are we to believe, with the revivalists, that

true regeneration must be marked by a crisis in which the person is completely carried away on a wave of emotional conviction? that the people who have experienced this are for ever different from the rest of the world, and that the man who becomes good by slow degrees and severe exercise of will is deficient in some quality only to be attained by the cataclysmic conversion? It seems to be generally accepted that this more or less irresponsible, sudden, inspiration is a kind of hall-mark of truth and value, in religion or art; the possessor of such a faculty is indeed apt to assume a superiority, and to claim a certainty of rightness; he has a feeling of absolute knowledge. This attitude is apt to be accepted, more or less unconsciously, by the general public, astonished by the very inexplicability of the phenomena. And yet, if there be a difference in kind, we cannot detect it in the result, which after all is the real test. Are the most fervent and most completely converted sinners at a revival meeting in any way distinguishable afterwards? Are the discoveries of a Newton or a Helmholtz less wonderful than the cosmic interpretation of a Swedenborg? Can we detect something in the writings of Coleridge that is wanting in Shakespeare? Is the passionate music of Wagner something of a different kind to that of Beethoven? In short, are we to consider the subconscious imagination the true and deep source of genius, and the other superficial, shallow, and of no real significance?

In a previous chapter great stress was laid upon

the marginal fringe in the field of consciousness—on the fact that, in addition to the object or idea immediately in the focus of attention, there were always present a large number of other sensations and impressions; all of which are, we must suppose, registered by the subconscious mind, for we find the appropriate reactions made without any conscious intervention. The mental fields are continuously succeeding one another, each with its centre of interest, fading to a margin towards which the objects are less and less consciously perceived. These fields vary enormously; they may be very wide, allowing masses of truth to be seen and grasped together, giving glimpses of relationships even beyond the apparent field. At other times—in time of pain or fatigue—the field seems to narrow almost to a point. Different persons vary very greatly in this width of field. A great turn for organising and theorising means a very wide field, in which a vast array of facts and ideas are held in one all-embracing view.

We have already pointed out that there seem to be different and partly overlapping fields for the conscious and subconscious mind; numerous sensations, and the thoughts, memories, and associations aroused by them, although extra marginal and unnoticed by the conscious mind, are yet noted, as it were, and stored up, exerting an influence upon the sum total of feeling. This existence of an awareness, if the word may be used, existing beyond the field of direct consciousness—that is, subliminally—casts a strong light upon the various

phenomena of the inspiration of genius, and the sudden new light thrown by the junction of ideas in a novel combination without the help of the conscious brain. Although, to see the working of this in a marked form, we have to regard and discuss somewhat exaggerated instances, we may be quite sure that what the genius has in excess the ordinary man has in a less noticeable degree. If a man have a strongly-developed ultra-marginal faculty, and at the same time be of an emotional and impulsive nature, there will be, first of all, an unusual tendency to sudden incursions from the subconscious level, which will, in the absence of any idea as to their source, be simply felt as sudden impulses to act, or of obsessive ideas, or even of hallucination; secondly, such ideas will, owing to his temperament, be little checked by reason, or will even, under certain conditions, especially if connected with religion, be actually encouraged by his reason, from the idea that there is something of extreme value in such manifestations. In cases of entire loss of control, the emotional excitement gains complete ascendency, and is likely to result in incoherent noises, speaking with tongues, groans, shrieks, and hysterical laughter; in fact, all the usual concomitants of sudden conversion, such as are often to be seen at a revivalist meeting, where every means are taken to allow the emotional excitement unchecked play.

Under such conditions we find various forms of abnormal mental conditions, one of the most frequent being hypermnesia or exaltation of memory,

which reaches a pitch of acuteness suggesting creation, or invention, rather than actual recollection (but as a rule such abnormal power of memory is a loss rather than a help to real creation, as the more nearly memory comes to complete redintegration the less room there is for novel combination). Putting on one side the exaggerated cases, we can see all through our ordinary life the continual uprush of fully formed ideas that seemed to have been worked out subconsciously; in the minor cases we usually term them intuitions, and are always apt to attach a particular value to them, one reason perhaps being that they are, by the very method of their formation, particularly apt to jump with our inclinations, and so to be believed more readily. But we must remember very clearly that rightness or value have nothing to do with the process; many people have felt themselves truly inspired, and have had all the vagaries and strong eccentricities proper to genius, but the outcome of the periods of excitement has resulted in nothing of the slightest value. Such cases are naturally soon forgotten and attract but little notice. We have innumerable intuitions, *i.e.* sudden complete judgments not reached by any process of reasoning, that are utterly wrong; these we disregard, and are apt to confine the term intuition to those that are found to be correct. The Christian distinguishes his religious ecstasy from that of the Mohammedan or the Hindoo—pronouncing one true, the other false—yet in each case they are psychologically identical processes, and accompanied by the inner sense of a fuller, more

certain knowledge. We must, I think, accept the conclusion that there is no more virtue in the sudden blinding flash of insight accompanied by the sense of rapt exaltation, &c., than in the slower processes by which a truth or creation may be arrived at. We cannot find that there is any possibility of grouping discoveries or creative works by any such criterion as the method of production. It is all a matter of temperament and differs probably chiefly in degree. One man will create nothing except in these sudden periods of inspiration, followed as a rule by an infertile time of inaction; another will reach this end by a slow progress. Newman was able by a careful and patient study of the patristic literature to convince himself that the Roman Catholic was the true religion, which he thereupon accepted with implicit belief, but apparently with little or no emotional crisis. To one temperament genius truly lies in the capacity to take infinite pains, to another in the ability to seize and make use of rare moments of sudden inspiration. Between these two lies all the ingenuity and inventive capacity of the ordinary man, who is, as a matter of fact, making use of his imagination all day long, and for ever jumping to conclusions, reached by no conscious process of reason.

We can notice one form in which the subconscious mind helps to make, what seem at first sight unconnected associations by utilising, but keeping below the level of consciousness, some of the connecting links. A recalls B, and B recalls C, but B being at the moment of no interest, we get in con-

sciousness A and C together, the middle term B acting as the unnoticed transition between two apparently unrelated things. This so-called "mediate" association is extremely common. The name of one friend of mine instantly reminds me of Napoleon and Lord Rosebery; a certain amount of introspection revealed the connection. He had been sent to St. Helena when I last saw him, and I was continually reminded of him in reading Lord Rosebery's account of Napoleon's imprisonment there. We may easily imagine that a number of mediate terms may be in this way omitted, remaining below the threshold of consciousness, and thus result frequently in unforeseen relations; the temperament of the person determining which are of sufficient interest to force their way into the focus of attention.

Any one idea may call up a host of associations, those that are considered most attentively being those that appeal to the particular temperament. For example, the word *London* will arouse all kinds of ideas and images, the majority of which will be in the vague marginal fringe extending outwards, becoming fainter and less distinct; no actual line can be drawn, and we may easily suppose them passing on into the subconscious region, each idea perhaps spreading and ramifying, touching all sorts of associative memories until they happen to come together in a relation sufficiently novel or interesting to arrest the attention. The receptive vastness of London, into which all lines and roads seem to run, suggests the simile of a great mouth, and we perhaps

speak of the all-devouring monster ; the aptness and suggestiveness of the simile strikes the imagination, and, with the rapidity of thought, the current is set and we fill up the details and carry out the analogy. The artist is always on the look out for these sort of illustrative analogies, and, as we have already seen, the conscious mind can give orders, as it were, to the unconscious to look out for and call attention to any view or point that is required.

The trained musician, the skilful player, the clever workman can teach their subconscious helper to adapt each action to the intention and wish of the conscious mind without any definite instruction as to details, and thus so automatically adjust the mechanical details that the whole attention can be concentrated upon the main object. So the subconscious mind of the thinker, the inventor, the poet, the painter, is, as it were, trained to keep an eye upon all the innumerable associations by contiguity, resemblance, analogy, chance, &c., and draw attention to the suitable ones. This is, of course, a somewhat fanciful description, attributing a power unwarrantably to the subconscious mind, and yet it is difficult to over-estimate the delicacy and accuracy of our half conscious and subconscious faculties. It would lead us too far from our subject to discuss here the phenomena of hypnotism ; but it throws so much light upon the working of the subconscious mind in connection with inspiration, that we must mention one or two points that seem of special interest.

In the first place, it helps us to realise how delicate

sense perception can be, and how keen the faculties can become under certain conditions. The great delicacy and sensitiveness of the different organs of sensation, going far beyond anything that is noted by ordinary consciousness, have been frequently referred to and are of fundamental importance to the suggestions that have been made as to the origins and reasons of our feelings for beauty. It will, therefore, be of interest to illustrate this from certain experiments that have been made upon persons in the state of hypnosis, because this condition offers peculiar facilities for such investigation. Professor Moll draws attention to the extreme degree of sensitiveness that is sometimes displayed in hypnotised persons, and the important bearing that this may play in explaining phenomena that is apparently supernatural. After describing some experiments with regard to the sense of touch, he goes on to say :—

"The senses of pressure and temperature become sometimes much more delicate. The hypnotic recognises things half-an-inch distant from the skin, and this simply by the increase and decrease of temperature (Braid). He walks about a room with bandaged eyes or in absolute darkness without striking against anything, because he recognises objects by the resistance of the air, and by the alteration of temperature (Braid, Poirault, Drzewiecki). D'Abundo produced enlargement of the field of vision by suggestion.

"Bergson has described one of the most remarkable cases of increased power of vision. This particular case has been cited as a proof of supersensual thought-transference, but Bergson attributes the result to hyperæsthesia of the eye. In this case the hypnotic was able to read letters in a book

which were 3 mm. high; the reading was made possible by a reflected image of these letters in the eye of the operator. According to calculation the reflected image could only have been 0.1 mm. The same person was able without using the microscope, to see and draw the cells in a microscopical specimen, which were only 0.06 mm. in diameter.

"A case of Taguet's, in which an ordinary piece of cardboard was used as a mirror, is said to have proved quite as strong a hyperæsthesia. All objects which were held so that the reflected rays from the card fell upon the subject's eyes, were clearly recognised. The same thing is shown by a great increase in the sense of smell. A visiting card is torn into a number of pieces, which are professedly found purely by the sense of smell; pieces belonging to another card are rejected. The subject gives gloves, keys, and pieces of money to the persons whom they belong, guided only by smell. Hyperæsthesia of smell has often been noticed in other cases. Braid describes one case in which the subject on each occasion found the owner of some gloves among a number of other people; when his nose was stopped the experiments failed.

"The muscular sense again requires a few words. This sense informs us of the position of our limbs at a given moment. The great dexterity of movement, which is sometimes found in deep hypnosis, must be ascribed to an increased acuteness of this sense." [1]

Great accuracy of observation is shown in the power of recognising differences between things that appear to the ordinary person to be identical. Numerous experiments have been made in which the hypnotised person is deprived of the power of seeing some particular thing or person. For

[1] "Hypnotism," p. 114. Albert Moll (1906).

instance, he may be told that he cannot see or hear one of a number of people in a room, whereupon he will be apparently quite oblivious of that person's presence, but all the same if that person actually gets in his way he will avoid him, inventing if necessary some reason to account for his particular action or movement. An experiment on somewhat similar lines, made by Janet, is related by Professor James,[1] who placed in the lap of a medium, upon whom he was experimenting, called Lucie, a number of small squares of cardboard with numbers upon them, telling her that all of them which were a multiple of three were blank. Upon waking she read off the numbers, but any which contained 3 as a multiple, such as 12, 18, 24, &c., were apparently blank. The interesting point about these striking experiments lies in the fact that perception and a certain degree of calculation were necessary in order to select the figures that she could not see; that is to say, that in such a case processes of ordinary thought and calculation can be carried on without any conscious knowledge of the process, while the result is correct and striking. We cannot describe further experiments, but we may briefly summarise some of the results that throw a certain light upon inspiration and artistic production. In the first place, as Dr. Moll clearly shows, consciousness is necessary for hypnotism in order to receive and appreciate the suggestion; a certain degree of will and power of concentrating the attention make the work of the operator more

[1] "Principles of Psychology." William James (1890).

easy. The whole process consists in making a suggestion to a person so that he accepts it with implicit belief, and acts upon it exactly as if it had existential reality. These ideas may be communicated by the voice in words, or by movements—no matter how, as long as the hypnotised person clearly understands what is required of him.

Dr. Moll,[1] in discussing the theory of hypnosis, points out two well-known, but insufficiently-considered, features of ordinary mental life—(1) that men have a certain proneness to allow themselves to be influenced by others through their ideas, and in particular to believe much without making logical deductions; (2) that a psychological or physiological effect tends to appear in a man if he is expecting it. If we wish to convert a person by argument, the case is nearly won if we can get our opponent really to visualise and consider the idea we are trying to put before him. Every one is liable to be carried away by an idea, and no one believes only that which has been logically proved. An idea, if it happens to hit a person's temperament, will be promptly accepted, and may to a considerable degree oust conscious and logical reason; the artist who, by harmonious effects of beauty has raised the emotional standard, can often drive home an idea that would otherwise be disregarded, or even disliked; this is very noticeable with regard to religious ideas, and their emotional accompaniments of music and ceremony. The idea may easily become dogmatic

[1] *Op. cit.*, p. 241.

belief. The second statement is too well known to require emphasising—expectant attention has so obviously a marked influence in producing the result.

Upon these two very simple and patently true statements, a large part of the hypnotic effects become more easy to appreciate. Under the conditions of hypnosis the person is very easily accessible to ideas; the idea once accepted, everything that militates against it is disregarded; utterly so, if the hypnotic effect be strong and the person well trained in it, partially so in other cases; things that cannot be disregarded are somehow worked in to form part of the idea. There is a similar state in dreams, when we accept the ideas that come as absolute reality, with a complete disregard of their utter incongruity, as easily as the hypnotised person; we can be young again or old; we can dream ourselves a king or a hero, or even commit crimes, but always, as in hypnosis, with a curious thread of rationality running through it all, which works everything into the particular idea that is at the moment holding the field.

If we read a number of illustrative examples of experiments in hypnotism we see how they pass through every step, beginning with suggestion of probable things and actions easily carried out, until they reach a pitch in which nothing is too improbable or outrageous to be believed; but in them all we find convincing proof of the fact that processes of thought, memory, calculation, &c., analogous on

all lines to our ordinary conscious mental processes, can go on without our being aware of it, and that the result of these processes can act with astonishing force, carrying all before it, leaving the will and the conscious reasoning faculties absolutely powerless before the overpowering impulse. Professor James has suggested the method in which this sort of subconscious process could produce the various effects of sudden conversion. It is equally suited to account for the phenomena of inspiration in artistic creation, and also in appreciation, which we can find in every degree from simple liking to ecstatic enjoyment. Under the sway of some overmastering idea that has suddenly "swum into his ken," the great artist or inventor or scientist often becomes blind and deaf to everything and everybody that does not help him in it—he is, as we say, hynotised by it; this is, however, really only an exaggerated stage of processes that are always going on in everybody.

Most writers, in touching upon the question of genius, dwell upon usually strongly-marked characteristic of persistent, tenacious attention devoted to one object. Many popular sayings are also witness to it: "Genius is only long patience," attributed to Newton; or, "Always thinking of it," and so on; one of the fundamental marks being the existence of a firmly-fixed, ever active idea which is always at work consciously or unconsciously, and always urging them to renewed effort. There is obviously a close parallel between a person under the sway of, and entirely dominated by, some *idée fixe* to

which everything is subordinated, and a subject under the influence of an hypnotic suggestion against which he is powerless to strive. Stories of inventors are full of illustrations of the extraordinary lengths to which an overmastering idea can carry its originator. But here there is an obvious parallel again—the person who is entirely dominated by an *idée fixe* to which everything is subordinated, to which everything is made in some way to refer, is under a despotic sway which he cannot break. These obsessions, or fixed ideas, may end in brilliant invention or in the lunatic asylum; for where they pass the point of a strong stimulus or incentive to research in some particular direction, and become a complete obsession, they exercise a profound influence upon the mental faculties, and the control of the reason is powerless to maintain a sense of relative importance of ideas; but the very sense perceptions themselves are subordinated and rendered nugatory, nothing is believed that cannot be harmonised with the idea, the sufferer is hypnotised with no power of awakening. Within reasonable limits the strong guiding idea is an immensely powerful source of effort, but we have to judge of it entirely by the effect or results achieved. If it produces, or is trying to produce, something of value in the practical, æsthetic, scientific, moral, social, or religious field, it is good; if, judged by our standards of life, the object is a worthless one, the ardent pursuer of it is put down as an eccentric or a crank.

We have already discussed at some length the

work of the subconscious mind with regard to simple reaction and automatic movements, which were, so to speak, relegated to it by consciousness, and were then by practice and habit carried out more certainly and more unerringly than the most careful attention could secure. Are we, then, to consider the function of the subconscious mind, in its power of reasoning and calculating, as something different in kind, not in degree only, from the conscious mental process? We saw that the conscious mind, in handing over certain actions or response to the ordinary stimuli of the sense organs, always did so with an understanding that at any particular noise or any particular reference, &c., the conscious attention was to be invoked. We see the same thing happening with regard to simple relationships and subconsciously noted inference—the striking, the unusual, the unexpected, being generally sufficient to call in the conscious mind. Let us apply this to the creative imagination. We are by the slightest introspection aware that there is a continual uprush into the mind of ideas and relations and so on, the majority of which are too absurd to be even considered; others are discarded after a moment's consideration; others may hold the field for a time; of some, however, our conscious mind decides that they are good. What is chiefly wanted is a conscious appreciation that is quick to see the bearings of a given idea; how often, when some great discovery is made, do we feel that we might so easily have thought of it ourselves; very likely the idea has occurred often, but

we have not been able to see its true relationship. As the mental equipment of men varies, so some will have a continual supply of ideas, strange and marvellous, but without a sufficiently critical judgment—they chase will-o'-the-wisps and think them real; others have strong reason and clear heads, but have not a sufficiently diffluent imagination—their ideas are too orderly, and repeat in too orderly a sequence to provide the novel and suggestive relation; they are, perhaps, intensely alive to the discoveries of others, and help to prove and test them, but they are themselves barren. When the two unite—an unending crop of suggestive ideas with a well-disciplined judgment—we have a type capable of anything, the particular bent which it will take being determined by the tendencies of the individual. The upshot of this is the suggestion that in the phenomena of the subconscious there is nothing new or marvellous, but simply the development of the natural process which we see from the beginning of the sharing of work between the conscious and subconscious processes of thought, there being no real difference but simply an interchange; the same result may be arrived at subconsciously or with full consciousness.

Generally speaking, it is chance, or rather our temperament, that decides what shall be the object of attention; and it often happens that the very keenness of the desire will prevent the invention coming by thinking too hard; simply because it is by its action forcing the associations in a parti-

cular direction, which happens to be a wrong one —just as it can upset and spoil some process that has become automatic by practice and habit, by interfering with well-learnt movements. When the control is released, the associations run together in every conceivable variety of ways, and the right collocation comes with a sudden flash, and, as it were, an inspiration—an idea which seizes upon and dominates the entire personality, forcing everything into its particular direction. It is, as it were, a return to the system of trial and error. The moment the right solution is found, all our attention is concentrated on that, so that we easily overlook the vastly greater number of useless and valueless ideas. Then the conscious rational mind having approved the idea, comes in and fills up the gaps with all kinds of reasoning and logic. By leaving ourselves passive we give greater freedom to ideas of all kinds to come in; the threshold of consciousness is low, and we pass freely and easily from idea to idea. We have no need to postulate a new method or process for subconscious associations and ideas; but the existence of this power of association and suggestion, carried on below the level of consciousness, with its accompanying extreme delicacy of sense perception, does help us greatly to understand the way in which beautiful objects can have so strong an effect in arousing feelings and emotions in addition to, and apart from, any conscious intellectual process.

CHAPTER XI

ART AND LIFE—CONCLUSIONS

All nature is but art, unknown to thee;
All chance, direction, which thou canst not see;
All discord, harmony, not understood;
All partial evil, universal good;
And, spite of pride, in erring reason's spite,
One truth is clear, whatever is, is right.
—POPE, *Essay on Man*, Ep. I. 289.

MAN realises his environment, broadly speaking, in two ways: either by a logical or scientific observation of cause and effect; or by æsthetic appreciation. These two methods are usually contrasted, and are apt to be considered in some way as fundamentally opposed; and yet, if we trace them both back, we shall find them springing eventually from the same root, and often, though perhaps unknown to each other, working in collaboration. They both start from the emotional craving of the human being to realise the world in harmony with human needs and desires. The emotional basis of the most apparently intellectual conceptions is insisted upon by Herbert Spencer, who points out in the preface of his autobiography, with reference to the synthetic philosophy:—

"One significant truth has been made clear—that in the genesis of a system of thought, the emotional nature is

a large factor: perhaps as large a factor as the intellectual nature."

It is only as the condition of human activities that the facts and provisions of nature become intelligible or practically important. For the world can only justify itself to the mind by the free life that it allows there; observation of fact and experience of nature are valueless until they become, under the spur of human impulse, the starting point for a creative movement of the imagination—the basis for ideal construction.

To think that the aim of man is accomplished when he has recorded, or perhaps in a way, and to some degree, explained as a chain of physical causes, the chance happenings of nature, and his contribution thereto, of impulsive instinctive action, is to forget the privilege of human beings—that of using nature as food and substance for their own lives, spiritual as well as physical. However much the animal impulse may be the starting point, the development of reason has found a nobler form of gratification, and the best and highest part of it consists in the power of imaginative creation; it is significant that man has attributed the gift of creation, with all the other higher functions that he can conceive, to God as highest ideal.

Man has but his five senses with which to gather a few of the infinite vibrations of nature — a moderate degree of intelligence, with which to thrash out the harvest of the senses, and many an irregular and passionate impulse that plays havoc with what interpretations he can make. Though

the equipment be small, the task that he undertakes, in his moments of ambition, is immense. Undaunted by the poverty of his materials, he proceeds to construct a picture of all reality, to comprehend not only his own origin, but that of all the universe, to find the laws that govern the cause of both, and to forecast their ultimate destiny. All through the ages, as far back as any records go, and in the most primitive races of man, we find this all-powerful aspiration, due, as we have already suggested, to the need for conformity to environment; if we are to be in harmony with the universe we must know the path we are to tread. When one faculty fails him in reaching his end, he summons another to his aid; finding sense and reasoning unequal to the task, he makes use of imagination, which is brought into the service of his instinctive desire, and made to do the work of intelligence. Moreover, the men of the most profound intellect are most apt thus to use their imaginative faculty, for the very depth of their knowledge makes them most keenly aware of the inadequacy of their resources, while they realise more fully the greatness of the problems of life. These are also the minds that most earnestly desire to find a solution that shall be noble—that shall give an authoritative sanction to their highest aspirations. This conclusion, so passionately desired, may be, or rather, by the nature of the case, must be, one that the understanding, demanding verification and proof based upon sense experience cannot reach. There must, then, be an ever present

dissatisfaction and unfulfilled desire, unless some step is taken beyond the understanding. Where, then, can he turn for the wider view, the deeper harmony, for which his soul longs? Only to imagination, for that is the only faculty left. It is the imagination which must give to religion and metaphysics the large ideas, the all-embracing survey, the great and emotionally satisfying theories of life, in which alone the higher type of mind can find congenial rest.

The intuitions or inspirations which science is not yet able to use are the groundwork of religion, metaphysics, and art. Man inevitably fashions his perceptions of the world around him into images, and whether they are scientific or artistic, the pleasure in the result, when it is pleasing, is due to the same emotion at bottom; to one the conception of the law of the conservation of energy comes with a wave of the same soul-satisfying emotion that is aroused in another the first time that he hears with real appreciation a beautiful rendering, say, of a symphony of Beethoven. To a certain degree we weigh the great generalisations of science, as we do those of religion, by the way in which they strike home to us—by the extent to which they seem to help us on our way to understand more fully our environment, and so to be of assistance to us by helping us to live in greater harmony with it. As Herbert Spencer has put it, in his chapter on Eternal Life :—"Perfect correspondence of organism to environment would be perfect Life." Such a life is rational happiness—the attainment of what

is really desirable, and is the aim, conscious or unconscious, of all effort, of all endeavour.

A harmony that is one in appearance only, that lies in imaginary passions, in rhythm and declamation, with its roots in nothing real, is unmanly, and can bring no lasting joy, can offer nothing but an illusive and momentary delight, which is far from a true and rational pleasure. So religion can turn to mere ritualism, art to exaggerated symbolism and romanticism,; living in a world of visionary pleasures that do nothing to alleviate or render more tolerable the real evils of the world. As knowledge deepens and experience grows, the unreal becomes less interesting; the child is happy in a world of make-believe—to the mature, the conditions of existence, as they become known and recognised, are the only conditions of a beauty that has value; no architect would care to design a building if he were bidden to do so without regard to the laws of gravity and constructional necessity. That is to say, that in art, as in life, the best result can only be reached when intelligence has full play—it must represent the whole. Just as action in practical affairs is doomed to failure unless the actual conditions are understood, so is that of the imagination, unless it is reared upon a true appreciation of the world and the natural instincts of man. The great value of art lies in its power of bringing happiness; from the rational pursuit of which people are drawn aside by many a foolish impulse and ignorant misinterpretation. Since art, therefore, has, as we have pointed out, its springs in all the needs of life, the

closer it keeps to the elementary human desires and the natural means of providing satisfaction, the nearer it is to beauty; but as long as art is merely concerned with providing material satisfaction it is an industry. Industry rises to art when it is carried out to the satisfaction and delight of all human desires, providing not only for the needs of the body, but meeting the sensuous and æsthetic demands; pleasing the eye and delighting the mind as it suggests some reconciliation between the higher aspirations of the soul and existing reality, touching delightfully the imagination as it stirs the emotions, by the beauty that it has created; art will then be responsive to all human nature, satisfactory to reason, pleasing and beautiful to sense. Thus, as special attention and distinction is paid to the directions in which pleasure is found to lie, the fine arts begin to emerge from the industrial.

The workman becoming an artist will try to realise an ideal in his work, something which, transcending the merely immediate utility, will be an expression—unconscious perhaps—of an aim—and will touch a wider and greater value, until the obviously useful becomes lost sight of in a remoter good, fixing in some plastic material a thought or feeling that may bear fruit for generations. "Art," says G. Santeyana in his "Life of Reason," "is action which, transcending the body, renders the world a more congenial stimulus to the soul." If we translate this from the ideal to the practical, from the spiritual to the material, we see that the prototype of art is activity devoted to

making the environment more suitable to the organism.

To this is added suggestive meanings and new ideas of nature, an appeal to the ideal instincts, some hint of the meaning of nature. For real and complete satisfaction in a work of art we must feel that value has been added to the world, that life has been in some way enriched and made fuller. In a sense, therefore, art is the interpretation of environment by helping towards harmonious adjustment. This it does by its power of hinting at a meaning. There is no need to suppose that any particular message must be consciously, or deliberately, the intention of the artist; as G. Eliot said, "The words of genius bear a wider meaning than the thoughts which prompted them." He feels a sense of the mystery of life, a meaning in things, a beauty or some suggestion of harmony which he cannot express or even formulate; he tries to show us the thing as it appears to him, to let us see it through his eyes, so that at least we may share his feelings; and if his effort is successful he wakens the old instinctive cravings, and fills us with undefined longings, so that there grows a sense of a deeper meaning in life, a higher and a wider sphere than the mere everyday existence; the senses are quickened, and under the spur we succeed in combining portions of experience in some new untried way, and find a connection unthought of before. So a great work of art leaves us with a fuller, richer sense of life; it helps us a step upon the way to self-realisation as a "vehicle for intuition"

of the world around us. Beauty gives us the best hint of ultimate good that we can get, and beauty, however defined, must be based upon harmony, The need for harmony in the organism, and between the organism and its environment, is obvious —indeed life is impossible without a modicum at least of such harmony, and, according to Metchnikoff,[1] all our hills are due to disharmonies. So that it does not seem straining probability to speak, as we have suggested above, of an instinct for harmony with environment. This instinct would then be the basis of many emotions and the source of cravings and desires difficult to particularise, as it became complicated by the baffling impulses and feelings of fully developed life. Given such an instinct, it is not difficult to trace an imaginary sequence; we see it for ever engaged in its effort to get at one with nature, to catch the meaning and the note of its surroundings. When first it takes outward form it appears in the animism of the savage—in rude music, coarse and rough ornament, in idols and temples, strongly utilitarian; but even in its rudest forms it is impressed with the feeling of a world not accessible to sense, hinting at its imagined purpose, symbolising the mystery and the meaning behind the simplest object; always, whether in religion or art, representing the effort for the higher, offering the greatest good that can at the moment be conceived; growing more spiritual and ideal with the rise in moral and intellectual development.

[1] "The Nature of Man."

This brings us to the close relation between religion and art, between which there are so many points of close similarity that it is not difficult to maintain that they are parallel manifestations of the same motive. We have already tried to show that art is the outcome, the idealised, conceptualised, stage of activities originally necessary to survival; that, in accordance with a law of universal validity, the simple physical pleasures gradually develop into corresponding mental pleasures in the region of the ideal. We see the same process passed through by religion. We may, if we choose, limit the word *religion*, just as we may and do limit the word *art* to the final stages, refusing to apply it to the earlier practical forms upon which it was grafted. The myth, the animism, and the fetichism of the savage have nothing in common with the religious feeling in the sense with which we now use the word, and yet we can trace an almost unbroken development from the early deities endowed with every sort of repulsive attribute into types of idealised humanity. Jahva, the god of the Hebrews, delighted in human sacrifice; a step forward, and a priest discovered that the blood of animals would be equally acceptable. From the god of a tribe he became the ruler of the universe, a father dispensing universal justice. No longer protecting and fighting for the tribe only, he allowed other tribes to inflict loss and damage; this was then regarded as a punishment, and so the growing spiritual enlightenment gradually evolved a religion.

Religion in its primitive stage was purely selfish,

practical, and utilitarian; it represents the conscious effort of man to get on his side in the struggle powers believed to be stronger than human. The god had to be deceived by stratagem, bribed by sacrifice, persuaded by prayer, or overpowered by incantation, to work solely in the interests of the individual person or tribe; the whole relation was one of barter; the god had to earn his sacrifice, and was imagined to demand it as a right for service done. The first beginning of religion was a deliberate effort inspired by the struggle for existence. The men or tribe that had the most correct knowledge of the meaning or purpose of the so-called higher powers—that is, nature—would feel that they had an advantage. In order to make an effective, or what would be felt as an effective, sign of their power and a means of communication between the external but unseen powers and the internal idea, some form that could be perceived was necessary. Much of the early ornament, drawings, pantomime, &c., simply represent this desire; and so we see art, if we like to call it so, on its imaginative side suggesting ideas, myths, analogies, on its constructive representing them by signs in some plastic form. Here we see at the very outset the beginning of that close and long-lasting connection between art and the expression of the religious feelings. They act and react upon one another, and it is hard, or rather impossible, to separate them, whether we try to estimate a line of demarcation in the rude but significant figures of the savage, or between the æsthetic emotion and religious enthusiasm in the

magnificent art of the middle ages. We can, however, safely say that they together represent and register man's intellectual and moral advance, his effort to read the meaning of the world, to find a moral order in the universe, and to show us how to live in harmony with it.

Professor Höffding, in "The Philosophy of Religion," traces the fundamental basis of religion in the belief in, or the desire for, the conservation of value. In religion we can be content with a mediate or future value, so that we may accept or even welcome pain and suffering, in the belief that it will in the end result in value. The sense of beauty is a perception of value, but a present or immediate value, which art attempts to register and so preserve; it is not primarily concerned with any value which may be suggested by the meaning conveyed. If we attribute pleasure in beauty to the meaning—*i.e.* a remote value—we trespass upon moral values rather than æsthetic. What religion requires in order to exert its power in the fullest degree is a belief in the remoter value as strongly as in the immediate perception, for then we can perceive at once suffering and pain as a value—*i.e.* they are the means to a desired end, and so become in themselves desirable. Here art comes to help, and by appealing directly to the sense of beauty it gives the feeling of immediate pleasure (sense of value), and so is able to suggest the double idea of mediate and immediate value.

In this lies the explanation of much of the confusion into which questions of art have fallen; to

one the whole meaning of art is in the meaning or expression, in the thought conveyed, to another it is concerned with nothing but the immediate pleasure produced. To Ruskin, art, religion, and morality were inextricably confused together; every beautiful thing was a tribute to God. "Art perfects morality," he points out, and again:—

"No art can be noble which is incapable of expressing thought, and the nobler the thought the nobler the art."

Other writers again indignantly disclaim that questions of morality have anything to do with art. We have tried to avoid this ambiguity as far as possible by keeping clearly in view the distinction between the instantaneous appreciation of the beauty of an object with the emotion thereby aroused and the intellectual process, by which, as the meaning is seized, all the ideas set in motion by the associations that are so rapidly brought into play come in to swell the total feeling; drawing attention to the fact that the rapid rise, and often far greater effect of the latter, tends to submerge, and so very frequently to hide altogether, the original simple sensuous pleasure.

The forms of fine art being aimed at, the excitement of the emotions is naturally utilised by any one who is capable of doing so, in order to drive home an idea, and so to make the person whom it is desired to impress, *feel* it, as well as understand it, and this is equally the case whether the idea lies in the æsthetic, moral, ethical, or religious field, because the stimulation of one emotion is the surest way to awaken another.

Beauty touches the world most profoundly when it is most clearly able to suggest a real harmony between the conception of some ultimate good and the immediate pleasure to which it gives rise. If then, rational happiness were made the test of all pursuits and institutions, the more beautiful they would be, the more numerous and the more profound the points of fusion with the mind and the ideal feelings. It would then happen that the creation and discovery of beauty would no longer be the task of a few, dealing with a visionary world, but beauty would be, so to speak, the test of efficiency, and would be an inseparable part of everything. For all things would be viewed not only in the light of their ultimate value, but of their capacity to give rational pleasure, and this pleasure being the gratification of the tendencies of human nature, it would be at once expressed in a perceptible beauty.

The function of art is to mould the formless, to give a more excellent shape to some existing material, to find or make a harmony between the real that is, and the ideal that reason craves. Thus, were it openly recognised that happiness is the proper aim of life, we should see the fine arts restored again to their ancient glory, again they would touch life at every point; for not only would they produce harmonies and beauties and tell of glorious ideas, but they would at the same time be expressive of the real and felt aspirations of humanity, and thus would strike home to emotions that were sincere because natural.

In a sense, no doubt, ultimate happiness is the avowed object of our institutions, our religious beliefs, and theories of life; but we fail so often to see, or refuse to recognise, the direction in which it lies, we have so long been taught to consider our instincts as animal and therefore despicable, that we cling to the belief that moral advance, and with it true happiness, must lie in crushing and thwarting them; though it is still the case that one or other of these despised instincts is the cause of the pleasure that is apparently gained by subduing them all. We are, however, beginning now to realise more clearly that to these physical instinctive desires and impulses is due not only all the value and good in life, but equally the highest and noblest aspirations of which the human mind is capable. So far from real progress being in the direction of banishing them from all influence upon our life, until we reach the stage of the sexless, emotionless, ideal of the ascetic, we shall gain most by the widest appeal to all those of the instinctive desires that can subserve the higher functions of the mind, not by stamping them out, and thus destroying all that gives value to the world, but realising that it is the abuse, not the use, of a function that is harmful. The natural impulse is raised by the mind and the imaginative faculty into the regions of the ideal, producing pleasures more airy and delightful, more elevating and lasting, than those of sense alone, the physical pleasure becoming a psychical delight.

"The fact that everything which we admire as true, beautiful, and good has been evolved under natural conditions gives a religious character even to the idea of nature. It contains the motive of the idea of an ethical order of the universe, in consequence of which the innermost essence of reality, the innermost force of natural evolution, cannot be foreign to that which works out in human ideals."[1]

In this lies the true line of advance, so that we can realise clearly that, so far from its being derogatory to some ideal delight to have its basis or origin in an animal instinct, it is a tribute to the mind of man, and a guarantee of the permanence and depth of the feeling. An eminent physiologist[2] has pointed out:

"The greatest happiness in life can only be obtained if all the instincts—that of workmanship included—can be maintained at a certain optimal intensity. But while it is certain that the individual can ruin or diminish the value of its life by a one-sided development of its instincts—*e.g.* dissipation—it is at the same time true that the economic and social conditions can ruin or diminish the value of life for a great number of individuals."

No one would, of course, take this to imply that progress or happiness lay in the unrestrained indulgence of any instinct to which the inclination of the moment was strongest, but to the rational acceptance of the fact that our natural feelings and inclinations are the source of our pleasure, and that thus they should be guided,

[1] "Outlines of Psychology," p. 262. H. Höffding, 1904. (Trans.)
[2] Professor Loeb, "Comparative Physiology of the Brain." (1900.)

controlled, and elevated, not looked upon as something base to be ashamed of. The idea that any display of emotion is bad form, with the artificial restrictions that are put upon the expression of feeling, has undoubtedly reacted unfavourably upon art.

It is impossible not to feel that the arts are, at the present time, somehow impotent; inspiration is sought in copying ancient models; in unidealised realism; we seem to be in a stage—

"When the great thought that slips the bound of earth and sky
Gives way to craftsmanship of hand and eye."

Technical skill is undoubtedly great; vast numbers of works of art are produced, but somehow the effect produced is small. Art plays an unimportant part in the life of the generality of men. Something of the same inability to touch life is to be seen in religious affairs. Religion, ignoring the very tolerable heaven which a sufficient moral advance would produce on earth, bids us disregard the world and its delights, and look to a greater and eternal delight hereafter. This has but little appeal to the ordinary man full of longings and desires, crying out for satisfaction here and now—longings and desires for the things that are in this world, and due to the conditions of this world. Schools of art and museums are instituted in order to fan the flame of artistic appreciation—that is suffering principally from the aloofness from life that this treatment does so much to foster. Art must be native, genuine, inevitable; but to be so it must be expressive of real and genuinely felt

emotions. Unfortunately, we have become accustomed to look upon art as something far removed from the sober business of life, as some pleasant by-path; and the more removed it is from reality and everyday life, the more those who practise it and enjoy it plume themselves upon being idealists. So tender a plant must be preserved from the rough contact of the world.

Art has suffered incalculable damage from this idea of separation from practical life: so strong indeed is the feeling, that we feel it to be in some way suitable that an artist should be a dreamer; unbusinesslike; standing aloof from everyday affairs. Thus the spirit and the only force that can make art live have been stolen away from it, and art, instead of being an influence irradiating life, tends more and more to become the plaything of our leisure hours. In the golden age of an art it is all pervasive; even the homely utensil of the kitchen will have its subtle appeal to the eye, because, where the artistic spirit is present, it is not sufficient that a thing should just do—it must look well; every product of the workman who loves his work, as an artist must, carries some indefinable but easily perceived suggestion of his feeling. The products of an artistic nation like the Japanese, even the cheapest and simplest things, have a character, a quaint or pretty turn, an indescribable something that pleases the eye and tickles the fancy. To Leonardo da Vinci—perhaps the most artistic artist that the world has seen—art touched everything; nothing lay outside

the domain of the artist. In his note-books we find, on the same page perhaps, a mathematical calculation, a diagram of some ingenious piece of apparatus, and a beautiful drawing of some object, such as a spiral shell, with a note upon some peculiar effect of light and shade. All nature held the potentiality of beauty: he could dissect a body, and feel a thrill of emotion at the beauty of nature's methods; he was an engineer of wide reputation; and—he created the subtle and marvellous beauty of the Mona Lisa. In him the spirit of art showed itself in the never-resting desire to improve upon everything, to know more about all phenomena, to see beauty in everything. Technical dexterity and the mastery of material were necessary in order to convey the most delicate differences, to catch and fix some fleeting beauty, some subtle play of light and shade, and to interpret more fully the meaning that he had found in nature; they were still only the means, and as such of the greatest importance, but kept in due subordination to the real ends of art. At the present day art has become so confused with skill in drawing and painting that a moderate degree of dexterity in either is popularly supposed to make the possessor, *ipso facto*, an artist; we cannot even teach drawing in a school without its being called art teaching; although such drawing is in reality a simple and useful piece of technical skill, having the same relation to art as reading and writing to literature. So accustomed have we become to this feeling that there is some quality peculiar to painting and

drawing, that many people, when they find themselves looking at a picture, at once put on a special attitude, not unlike that which they put on with their Sunday clothes in going to church; the result is an unnatural state of mind, and they are reduced to an effort to judge intellectually what fails to move them emotionally, and fails largely, because of the training and habit of mind which has taught them to dissociate what they call "works of art" from any sort of natural feeling and everyday life. Perfectly natural expression of feeling would no doubt do something to improve art; and if people would say at once what they felt, instead of stopping to think whether they ought or ought not to admire, there would be some chance of art at least being expressive of the general feeling.

Art, as we have seen, is in its early stage skill devoted to improvement of environment, in providing a source of gratification for some need, or pleasure, in response to desire; and it is its power of making progress possible by perpetuating, and registering, each step made, that rational action and imaginative creation are thus able to leave its trace in nature. For until art arises all advance must be internal in the brain, and so die with the individual; art has established and provided instruments by which the outer material is moulded into sympathy with inner values, and the idea is registered in some corporeal sign that will remain, and so become a starting point for future advance; it is this function of art that has led to the suggestive expression that art is "reason propagating itself."

The fruits of experience stored up in an improved environment make life easier for the oncoming generation, enriching it on all sides; thus the arts touch life at all points as they subserve all parts of the human ideal, to increase man's comfort, knowledge, and ideal delight. Beauty then arose, as far as it was produced artificially, as an incident; art, in its useful and practical attempts at progress, occasionally produced some result, or incidentally furnished some effect, that gave an unexpected delight and pleasure to the beholder—that stimulated his emotion and aroused his feelings, setting his imaginative faculties in train with the accompaniment of ideal pleasures. A chance rhythm, some combination of colour or sound, some suggestive effect of form, touched off the obscure feeling which the mind, unconscious of the source, naturally attributed to the object, and this intuition of value in the object gave rise to the feeling of the beautiful. The æsthetic value is thus inextricably mixed up with the practical and moral in actual fact, so that, however we may recognise theoretical distinctions between them, it is impossible to separate them practically; and when we do so, the result is apt to be misleading. If a certain part of a piece of work is described as fine art, it generally involves an abstraction from the object which has many other non-æsthetic functions. The man of an artistic nature does what he has to do fitly, lovingly, and therefore very often—whether he means it or no—beautifully. Anything that in appealing to a man's senses by its appearance

rouses an emotion of pleasure, and touches thereby his imaginative faculties, has æsthetic value; but to attempt a delimitation of the exact qualities to which this is due, apart from the occasion, the use, and all the circumstances of the object, is an impossible task; we can only regard them as an appeal to man's inmost being, to his deep-seated sympathy and emotional response to nature, the cause of which we have already discussed at length. This is the reason that we have, in the foregoing pages, gone at perhaps too great a length into the growth and origin of the instinctive desires, in which it is possible to see, or at least to conjecture, how the mere vital necessity of conformity with environment may be conceived to lead to the curious aptitude with which man's heart goes out, as it were, to nature; and as this instinct is early, so it is deep-seated. There is little doubt that, were it given freer play and more suitable encouragement, it would show a far stronger and more definite reaction; for such is the elasticity and adaptability of human nature that not only can an instinct become highly specialised, but there is hardly a natural desire that may not be stifled, and as organs and muscles weaken by disuse, so may an instinctive tendency become dull for want of exercise.

Just as the other instincts and emotions are raised either to serve the highest aspirations of man, or to serve for simple sensual gratification, so will the æsthetic sense be what it is made. We may use the emotional response to beauty of colour and

sound merely as an added relish to the enjoyments of the lower senses, or we may add its stimulating suggestiveness to help the soul forward on its highest flights, to find the intellectual harmony that can satisfy the human ideal.

If there is a purpose in the universe, and we could understand it and live in conformity with it, we should have attained perfect happiness. Religions have always offered this explanation, and have for ages been the acknowledged source of such information, and no doubt the absolute whole-hearted believer may find complete intellectual rest in a perfect harmony between himself and his God. But we no longer go to religion for actual knowledge. As Mr. Haldane, in "The Pathway to Reality," points out :—

"The immediate inspirations of Art and Religion give exquisite hints of the truth to all, but it is only the iron logic of philosophy that can, after long striving, break through the bewildering incrustations of existence, and give some direct justification of the spiritual life."

Through all religion runs, as a main current, the idea of perfect harmony between man and his environment. Particular religions come to an end when they fail to meet the highest aspirations of their followers, but only to be revived in others more fitted to the growing intellect and knowledge, for the instinct is not weakened, whether it be expressed in the subtle metaphysics of the Oriental, the ethical system of the agnostic, or the Utopian dream of the social reformer.

"Rien n'est beau que le vrai," says Boileau. Beauty has often been defined as truth, and this much, at least, is certain that nothing can appear beautiful to any one to whom it is not truthful as far as he is capable of appreciating the fact. The essence of truth is harmony, perfect correspondence between the idea and the reality, and any artist aiming at beauty cannot help also aiming at truth.

We may say then, that of all the various impulses to art, as indeed of science, the greatest and the most directly responsible for the highest and best production is the craving to understand self in nature, to know the truth, to see the path that the human being is to tread, and how to keep in it. As Hegel has put it: we start with man's universal need to set the seal of his inner being on the world without in order to recognise himself therein.

We may, for a time, be overwhelmed and stunned by the greatness of the task; we may give up the quest, and try to find rest for our soul in some emotionally satisfying religion, or passively accept the verdict of "ignorabimus" to let our art suggest to us only the mystery and glamour of the world, to accept the mystical suggestion in the place of intellectual effort. But this does not last; the old instinct reasserts itself, we see with ever renewed force that our evils are due to disharmonies; we turn to science to help us, but her aid, though it may be sure, is slow. Religion, metaphysics, philosophy, each offers us a solution, and some find peace there. To all, art, with her power of creating beauty, offers her solace; she is nature's

spokesman and interpreter, and so we send the artist back and back to nature. If he cannot tell us the way, he can at least create an ideal world for us, in which we may catch a glimpse of a pure and perfect harmony, a momentary resting-place in the never-ending struggle to realise, with full understanding, "Nature's unchanging harmony."

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