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*WISDOM AND RESPONSIBILITY*

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## GENERAL OUTLINE

THE purpose of arguments is to convince. But even sound arguments fail if the reader is either not able to follow because he does not understand, or not willing to follow because he is afraid of the implications which may be involved. Hence it is helpful if he knows early enough what the conclusions of the argument are. It is one thesis of this book that an argument cannot really be understood unless it is seen in its context and in its intent. It will be an application of this thesis if the book starts with a general outline which tries to indicate the scope of the inquiry and even some of its results.

In a philosophical inquiry the conclusions are often easier to understand than the argument. Sometimes the results are as simple as to say that there is an external world in existence, or that every effect has its cause. In such cases the argument has more weight than the thesis, because the point is not that the thesis is valid but that it can be doubted and argued. The reader of a philosophical book may sometimes feel inclined to say: "I believe all the propositions. Why all the arguments about what seems to be self-evident anyway?" This man is in a position as unfortunate as that other reader who does not understand the propositions. It is even harder to help him. For he lacks the radical doubt from which all philosophical thought springs. In philosophy the argument is as important as the conclusion and may even have value if the conclusion is wrong. It is as essential to raise and discuss questions as to answer them. Other sciences are kept going by the results they achieve but philosophy is kept going by discussions. This has been a disappointment to many. While every forward step in science seems to be based on a thorough integration of all former findings this is not necessarily the case in philosophy. There are many avenues to philosophy, and walking on them seems to be what matters, even if you do not get anywhere. Arguments are such walks, and you do not deserve the rest which is given by the final proposition unless you first have had your exercise. Hence, if in this outline some results are given away early, no more is revealed than in a prologue of

a Greek tragedy. Sign posts do not render the walk superfluous; they only make it easier and more pleasant.

Human consciousness is filled with convergent or divergent mental activities which may be called its contents. If we isolate a single one of these contents we find it tinged with an appeal or flavor which is its subjective value. When, by way of contemplation, the content is converted into an object, this appeal is deducted from it and understood in terms of categories which are called objective values. For example, my fountain pen incorporates a subjective value when I handle it as a useful tool. When I contemplate it as an object, I deduct from it the category of usefulness and discover the pen as a thing of a certain shape and color and weight. If, however, the usefulness of this thing becomes an isolated object of my meditation I conceive it as an objective value. Money is a valuable thing. The subjective value of money is constituted by its desirability varying from individual to individual. Its shape, color, weight constitute it as an object, and its purchasing power constitutes its objective value.

How are subjective and objective values related to each other? This question was a point of issue in the dispute between Plato and the Sophists and it has not ceased to be a crucial question. As a rule, we are aware of subjective values before we are conscious of their objective counterparts. In fact, whatever has weight on the scales of our consciousness has its subjective value, which is this weight. As soon as we stop to think about subjective values we find objective values as their bases. The desire to own money is a matter of subjectivity as long as we feel it without analyzing it. If we stop to think about the reason for our desire we find it in the purchasing power of the money, i.e. in the fact which constitutes the value of the money in objective terms. The purchasing power does not depend on our wishes. It remains a fact whether or not we take notice of it. It is, however, obvious that there is a factor of arbitrariness in our connecting subjective and objective values. Everybody will concede that the reasons we give for what we are doing are not always the ones by which we are driven. We are more or less prone to deceive others and even our-

selves by interpreting our feeling and our actions in terms of objective values which are not the inner springs of our motivation. The sophist will go so far as to claim that the objective values have altogether been invented in order to justify the subjective values. He will say either that we ourselves construct objective values in a way which suits our secret purposes best or else that we take the objective values over from conventional patterns which have been inaugurated by the strong. However, why should we hide our subjective purposes behind a protective wall of objective values unless we assume that these values are real and powerful and independent of us? Plato is right in that the objective values are not constructs of the human intellect. Although often abused in arbitrary interpretation, they will neither be created nor annulled nor modified by the maltreatment they suffer in sophistic arguments. Nobody can deliberately choose the values in which he believes. There is, however, a functional relation between the personality of an individual and the values which are dear to him. Diogenes will not deny that money has purchasing power, but this objective value means less to him than to Lucullus. Every personality develops along lines which can be interpreted by a specific system of objective values. The personality of Diogenes is characterized by a system of values which is different from that characterizing the personality of Lucullus. Diogenes cares little for money because it does not buy the values which he thinks are of paramount importance. Lucullus is interested in the commodities which money will buy and thinks it is wiser to make good use of them than to live in a barrel. Neither of them could step out of his skin. Being what they are as personalities, each of them is bound to adopt the system of values which fits the scheme of his personality, and no value has meaning and weight unless it is relevant to such a system. Values have no higher degree of reality than that which can be derived from their being potential developments of personalities. Plato would not admit this thesis, but Max Scheler seems to have proved it.

Subjective values are motives. Objective values are mental

categories in terms of which motives are interpreted and judged. The objective values may become motives in themselves. Ordinarily, however, we do not envisage the purposes we pursue in terms of the objective values they represent. How, then, are objective values effective in genuine decisions as long as they are not objects of contemplation and specific attention? We have them as typical reactions to model situations which help us bring out the contours of real situations. Such a model situation is comparable to the scheme which, according to Uexkuell, releases an instinct. Just as we have instincts which tell us how to meet certain situations, so also do we have inborn patterns of how to interpret certain given situations in terms of objective values. There are, however, differences between instincts and values and likewise between instinctive schemes and those model situations. One of them is that the model situations are very poor in significant features. It often happens, therefore, that in a given situation more than one model situation seems applicable and that conflict arises over the choice of alternatives. The model situations or the values derived from them are not impelling. They bear on the ripening decision. But before they tip the scales they must undergo an act of evaluation.

How is it ever possible that motives become integrated in motivations and that problems are solved? Attempts to establish an order of rank among the different values have not been quite satisfactory. There is no calculus by means of which we are sure to solve every problem of life in plain terms of objective values. Nature is written in the language of mathematics; life cannot be fully described in the language of objective values. The principle of evaluation can never be obtained from an analysis of values. It is prior to them. We can explain our reasons, but not the reasons for our reasons.

A mosquito laying its eggs in a pool most likely gets some pleasure out of doing so. It is motivated by this pleasure, but it is utterly unable to see the reason behind it, namely the preservation of the future larvae. There is much evidence that man is likewise determined by final ends which are not an ob-

ject of his contemplation although they account for his personality and constitute his will. The pressure which the final ends exert upon man is felt as responsibility.

Man feels responsible for the final ends which he does not know. His relation to them is definite, unambiguous: it is his destiny. They are that will of his the freedom of which has been argued by many philosophers. Man is of as much worth as his final ends and he proves their worthiness by his way of being.

Man feels responsible not only for what he does here and now, but for his future. The demands of the future are active in the decisions of the present moment and join the series of moments into a whole. In passing judgment we understand every action as due to a push from the past, whereas when man acts he feels as if he were pulled by the Ought which is the integration of his future.

Man feels responsible for more than his own person. There is an overlapping of individual ends which accounts for the fact that there is solidarity among men. It is through his final ends that man is not only an individual but also, and even primarily, a member of a group. In the awareness of mental acts, the I and the Thou are originally not separated.

As man feels responsible for his final ends he also draws a feeling of security from them. He is confident that he has a right to realize the potentialities which are implied by his final ends. He feels that he has a right to be, not what he is occasionally, but what he is existentially, i.e., what he should be. The legitimacy of his living is his striving. He also has a naive trust that the situations he meets are such as are related to his capacities and can, on principle, be solved. He trusts that he is not merely the passive recipient of events but has a way of reacting. The reason for this trust is that the way a man grasps a given situation is determined by his final ends.

The same confidence tutors his mental activities. Man believes that his questions can have meaning and that there can be final answers to them. He believes in truth. Problematic aspects whose difficulties, if he saw them, would definitely dis-

organize his thinking remain unnoticed behind a beneficent screen of evident facts which promise safety and seem too obvious to provoke questions and investigations. Yet the horizon of those evident propositions on which man founds his system of knowledge is determined by evaluations which, in their turn, are determined by final ends.

Man discovers the world which is encircled by this horizon through mental activities which are called cognition and understanding. Cognition externalizes the object as something set over against us which calls for analysis and description. Understanding calls the object back into the homeland of convictions by which man organizes his world. Cognition furnishes a picture of the What, understanding an explanation of the Why. Cognition is stirred up and guided by hunches which spring from the function of understanding and anticipate the relevancy of those details on which man concentrates his interest. He does not care for anatomy and description unless he expects clues from it which will help him understand the object better than before. The function of understanding, in its turn, is in close co-operation with the function of evaluating. It is easy to see how understanding clears the path for better evaluating, but the fact that evaluations are the basis of understanding is less evident. Understanding means integrating, assimilating. How do facts ever become bits of our knowledge? How do we integrate them into the body of our knowledge? Within the system which our knowledge forms a place is predetermined for every fact which is brought to our attention. To find this place is to understand the meaning of the fact. The system as a whole, however, is established on the basis of evaluations which constitute the structure of our minds and of all there is in them. Objects are evaluated before they are recognized as objects. We are earlier aware of their subjective values than of their spatial and temporal attributes.

Evaluations are actions of which we are conscious while we practice them. When we try to analyze them objectively they appear as the organization of our values. Evaluating the objects of our world is actually our human way of contacting

the world under the guidance of our final ends. Evaluations make decisions, solutions, answers possible. They are not always at hand but we feel authorized and encouraged to try for them. The final ends warrant justice in life, and truth in knowledge, as possible goals. They represent the ultimate as it becomes effective in individuals.

## *INSTINCT AND INTELLECT*

**I**T has been said that man is an animal endowed with superior intelligence. Due to his intellect, he is able to learn from experience, to adjust himself to his duties, to plan his work, to make his decisions, and to organize his activities. His intellect also enables him to reflect on his own actions, to recognize facts and events in his environment, to picture his floating impressions in lasting ideas, and to summarize his experience in comprehensive systems. Indeed, reasoning seems to dominate the conduct of human life. Moreover, everywhere in nature arrangements are found which seem to be the result of intelligent planning. We do not understand nature until we see in it the realization of purposes which argue an intelligent will behind the scene. Truly, intelligence is the key to the problems of life.

However, in the beginning life is not a problem. An animal does not seem to regard its life as a chain of problems. If we follow lines of religious thought, animals are objects of a divine intelligence which has made provisions for them so as to enable them to live. Their problems are solved before they stop to think about them. Nor would they be able to think about them as they have little or no intelligence. Scientifically speaking, animals largely depend on instincts. Of course, this term explains nothing but the scientist tries to explore the functioning of instincts, and the philosopher will be highly interested in this research. If life is not bound to rely on the resources of intelligence, it may be true that reasoning does not produce the ultimate basis from which to understand life in its full scope. Animal instincts indicate that the intellect does not play so central a role in the phenomena of life.

Instincts have been defined as complicated reflexes which have never been learned and will never be forgotten. They function in perfect fashion as soon as the organs are ready for them. A bird knows how to fly as soon as its wings are long enough. The old birds sometimes encourage but never teach the young. No living being can be taught anything it is unable to imitate. Birds are able to imitate voices, and consequently

their singing can be made a matter of training. But they are not able to imitate movements, and it would be of no use to show them how to make certain movements.

Experiments have shown that instinctive action is the response to situations in which certain features co-operate in making a certain effect on the animal. The co-operating features are undoubtedly conceived as wholes of Gestalt quality. The European warbler feeds its young if they are lying in the middle of the nest and showing the bright colors inside their wide-open beaks. If the young shut their mouths because they are gluttoned (which hardly ever happens except in captivity) or if they are lying near the edge of the nest or even under the tree, the warbler will not recognize them and will treat them like strange matter. The spider is stimulated by a certain shake of its web to look for a piece of prey which may have been caught. If a spider and a fly happen to meet each other on a table the spider will not recognize its chance and will run away as if danger were imminent.

A spider has sense organs which doubtless register changes in the environment. This stream of fluctuating impressions hardly gains the stage of distinct and organized sense perceptions as long as the vital interests of the spider are not affected. But once in a while a change will occur for which the spider seems to have been in wait: a certain shake of the web or a move nearby, and now the "picture" of the outside world coincides with an inborn "scheme" (Uexkuell) which releases the instinctive action. The shake means fighting and eating; the move nearby means running away. The scheme has only a few characteristic features, just enough to make abuse unlikely. It makes no difference whether a harmless fly or a dangerous hornet is caught in the web. Both are attacked automatically. There is no doubt that the spider is not acquainted with flies and hornets but with certain situations in which a human mind finds flies and hornets involved. Nevertheless, the wind which shakes the web does not easily deceive the spider, which knows well enough how to distinguish the shake caused by the wind from a shake caused by an insect (Hans Volkelt). Experts believe that the warbler is not deceived by the young cuckoo

in the nest but feeds it in order to satisfy, in a compensatory way, the aroused instinct.

Much as the process of instinctive behavior does resemble the functioning of a machine, animals are not machines. The scheme is not the only cause which releases instinctive behavior; there is also an internal impulse—the disposition of the animal. This disposition is seasoned and conditioned by bodily changes. The scheme will not find any response unless there is a readiness on the part of the animal to respond. When the spider is not at all hungry the shake of the web will remain below the threshold of sensation and not even be noticed. When the inner impulse becomes powerful without ever meeting the adequate situation, the animal tries for a compensatory satisfaction or the instinctive action runs idle.

Many female spiders eat the male after copulation unless the victim escapes in time. The spider of course does not know that the same object is first a lover and then food. It satisfies its instincts, starting with the strongest which is that of mating, but it is not aware of its mate as of an individual. The male swan, to cite another example, chases a female with great "fury" out of the protective zone around the nest where his mate is hatching eggs. But once the border of the home territory is reached the swan changes his behavior immediately and entirely—he starts courting and eventually copulates with the expelled female. In doing so, he certainly is not aware that he satisfies different instincts with the same individual.

On the stage of merely instinctive behavior the world is conceived in terms of action. It is not conceived in terms of individuals and things. The animal, on this stage, is not able to think, "Here is danger, here is a companion, here is food." If, with reservation, we try to make explicit what may be going on in the animal it may be something like, "Here is fighting, here is protecting, here is mating." Or even better, "Fight, protect, mate." There is a feeling that the equilibrium with the environment is upset, and there is the imperative to restore the balance. The variety of situations which the animal meets on this stage is as numerous as the variety of its way of acting. (Karl Lorenz) Its world being its behavior, it is aware

of its world in terms of its dealing with it. Animal and environment are a functional unit.

This unit is the pivotal point of all developments in organic life. Environmental conditions change, and plants and animals adapt to them or change them in their turn. The influence is mutual. Animals develop new organs and, at the same time, new instincts to use them. If the union between a new species and its environment does not function well, the chances are that the new species will die out before long.

Nature's experiments, which center around the functional unit of animal (or plant) and environment, are doubtless very expensive. Much life falls victim to the hit or miss feature of this struggle. There are, however, balancing factors. One of them is the abundant fertility, particularly of the lower animals. When we ascend the scale we find another factor of great importance for the conservation of life: the ability of adapting to, and surviving in, more complicated situations than could ever be mastered by a system of instincts. This ability is based on the development of the intellect.

Whatever use man may make of his intellect, it is obvious that on the stage of animal life the intellect is used as a means of making possible adjustments in unusual situations where instincts fail to function. The ends of the intellect, on this stage, coincide with the ends of the instincts. The basic relation between the two is co-operative rather than antagonistic. The co-operation is, however, freighted with problems. The development of the intellect proceeds on ways of its own and some of its features seemingly jeopardize the unity which should be preserved and restored. The intellect, it seems, does not primarily conceive the aspects of the world in terms of wholes. Its function is to dissociate the world from the perceiving mind. The picture which becomes visible to the mind is dissected into single objects which are selected and focused upon according to their importance. While this analysis is going on, the impulse to immediate action is restrained, the next goal being knowledge rather than action. In other words, the immediate contact between the animal and its world is interrupted. The functional unit is suspended and the objects

appear at a distance. Time is inserted between stimulus and action. There is a delay. (Bergson)

During this delay the world takes on a static aspect. It becomes a co-existence of fixed entities which can be given names. The noun is an invention of the intellect. Now there is not only "fighting," "running away," "eating," but an enemy, a piece of prey. There are not only sudden flashes of awareness, there is the continuity of a picture preserving sense perceptions. The animal is, however, not interested in mere contemplation of the world. In order to live, it must act; and in order to act, it must convert its knowledge into motives. Several motives may result, and they may not be congruous. The instincts, only temporarily restrained, also come into the picture again. There may be a number of possibilities; but one can act in only one way at a time. How is it possible to blend different impulses into a decision?

The world of contemplation promises multiplicity, while the world of action requires a definite selection. The former invites a rest, whereas the latter demands going on. How does one know that both worlds are but one world? A flying arrow, at a given moment, dwells at a given spot as if it were resting there; but at the next moment it will be at another spot. How did it get there? How is change possible in a static world? How is knowledge possible in a changing world? Philosophers have dealt with this problem since Zeno or even earlier and have had a hard time explaining it. Animals, however, have survived this difficulty. How can they do it? How are they able to combine instinct and knowledge and to restore that unity which seems to be endangered by the intellect? This question needs further inquiry in the future. So far, four possibilities have emerged as distinct.

1. A gosling has an inborn knowledge of how to shape its relations to its mother. But it does not know what its mother looks like. It takes the first big moving thing it sees after its birth to be its mother. If, under unusual circumstances, this thing happens to be a man or a canoe, the young goose takes this man or canoe for its mother and attaches to this strange

substitute all its baby instincts. It behaves as if it supposed itself to be a human baby or a small canoe. Other birds are not deceived so easily. The reason is not that they are more intelligent than a goose. On the contrary, most of them are less intelligent; but in recompense, they have more instinctive guidance. Their inborn knowledge of what their mothers look like is distinct enough to make mistakes unlikely. Geese have fewer instincts than any other birds, and the scheme the gosling has of its mother provides no more than the following indications: "Mother must be something bigger than I am; something moving." It would not be deceived by an insect or a box, but many beings or things may fit into the scheme.

The behavior of a gosling towards its mother is instinctive. The scheme, however, which releases this behavior is given by instinct only in some rough outlines and most traits of the picture are acquired soon after birth. Experience and instinct are interlocked. When an instinct is ready to function, the intellect is ready to furnish those additional notions which supplement the releasing scheme. Instinct and intellect are welded (but not melted) together as distinguishable links of a chain. Lorenz<sup>1</sup> points out that the way the knowledge of a companion is attained is, in two respects, different from the way the knowledge of a thing is acquired: the former can be gained only during a limited period in the development of an animal, and after it has been acquired it cannot be forgotten. If the young goose does not happen to see anything it can take for its mother during the very first days of its life, it loses its ability for such an attachment entirely and grows up without a mother. After the goose has taken on a suitable object for its mother, it cannot change its mind. The first attachment lasts as long as the gosling needs a mother, even if the gosling which follows a man or a canoe gets sight of a real goose. The knowledge of things, on the other hand, can be gained at any time and can be forgotten. This observation of Lorenz reminds

<sup>1</sup> Karl Lorenz, "Der Kumpan in der Umwelt des Vogels," *Journal fuer Ornithologie*, 1937. I am deeply indebted to this excellent study which deserves attention from philosophers.

one of the well established theory of Scheler<sup>2</sup> that man's relation to his fellow men and possibly to other living beings is basically different from his relation to things. We know about our companions in another way than that in which we know about things.

2. The shrike impales insects on thorns. The movements of this action are innate as is its knowledge of the object which is pierced. But the young bird has no knowledge of the thorn and at first practices the movements without any result. There are, however, thorns in its natural environment, and it will, sooner or later, happen by sheer accident that the object is caught by a thorn. The bird notices the resistance with satisfaction and learns how to take advantage of thorns. It combines this knowledge with its instinctive ways of dealing with an insect. The instinctive behavior is enriched by a trait which is learned.

3. The solitary wasp builds nests and puts an egg into each of them, together with some food for the larva. If the nest is hurt while the wasp is building it, or if the egg or food is taken out, the wasp discontinues its usual course of action and repairs the damage. It has a scheme of what it is going to build. Its instinctive actions materialize a distinctive plan. If, however, a disturbance occurs, the wasp is able to notice it and to localize the irregularity. It modifies its instinctive behavior according to unexpected demands. For that purpose, it may not need more intellect than we do when we arrange our blankets while we are asleep. But if we doubt whether an insect is endowed with anything at all comparable to human intelligence, and if we look for another explanation, we cannot help acknowledging that instinct and intellect are linked up that way in nest-building birds. Experience modifies the course of instinctive behavior in order to achieve the instinctive end when it is endangered by unusual happenings.

4. A hungry dog craves the meat on the table. He has, however, been trained not to take it and remembers that he will

<sup>2</sup> Max Scheler, *Wesen und Formen der Sympathie* (3. Edition; Bonn, 1931). The first edition in 1913.

be punished if he does. Training has annulled the efficacy of his instinctive purposes and changed his instinctive behavior. The disposition to yield to instinctive impulses can be lessened by training or reasoning.

Let us draw some general conclusions from the four examples. Every instinctive action consists of the release—which is usually a scheme—of the action itself and of the end. Training and reasoning can affect all three of them as they can supplement the scheme as well as alter the course of action or suppress the ends. Thus intellect and instinct supplement each other, and they do it in such a way that, in their concomitance, the two components can be held apart. The contribution of either to the resulting action is still discernible and can be analyzed. They do not melt together, at least not so far as animals are concerned. This especially holds for the end. The behavior of an animal can always be described in such a fashion as to make clear that the end is the objective of the strongest instinct. In the case of the dog, the submissive instinct is stronger than his appetite. In the case of the swan, the instincts take turns, depending on the distance from the nest. In any case, one instinct prevails.

Such clear-cut results can hardly be expected in men because the motivation of human actions is far more complicated. The analogy between animal and human behavior must not be stretched too far. But it would also be wrong to draw a sharp line between the two and to decide that animals are driven by instincts whereas human beings are motivated by reasons. This statement would be unfair to many animals; it would be even more so to human beings. Man is not primarily under the guidance of abstract reasons but of pictures or schemes or patterns. Thinking in terms of pictures is not confined to naive minds; for a person with a rich personality develops a fuller command of images which keep revealing to him the Gestalt quality of his evergrowing world. Every psychological approach to forms of human behavior should take into consideration the fact that an integrated person is living in an integrated world and that an integrated view of the world is a matter of intuition rather than of reasoning. Miraculously

enough, it seems possible to translate the motivating force of such intuitional views into a fabric of reasons, just as it seems possible to translate events in nature into effects of natural laws. But the gain of this translation must in neither case be overestimated. It is correct to say that a stone falls because it is heavy? Or do we call it heavy because we see it fall? The law of gravitation explains the fact that the stone falls and how it falls. It does not explain why. The natural law generalizes the event and associates it, in our thinking, with like events. But the fall of a stone is no less of a miracle in view of the fact that all bodies follow the same law. If positivism is right in saying that natural laws describe rather than explain events in nature, it should likewise be stated that reasons describe rather than explain forms of human behavior. Reasons translate the Gestalt quality of intuitional views into the consistency of abstract conclusions. But the conclusions are not necessarily of greater urgency than the pictures from which they are derived. The decisive events and developments in a human soul are usually not prompted by abstract reasoning but by the growth of certain patterns which fill the imagination with model situations. In his reasoning as well as in his actions man is guided by model situations which he expects to see in reality. The schemes which release instinctive action are examples of such model situations. We shall meet other examples. Man disposes of model situations which are not based on instincts. Just how important instincts are in human life is a matter of controversy. We have been cautioned against the use of the term with respect to human beings. Many traits which seem to be based on instincts are not. Other traits may be rooted in instincts although we do not yet know it. At any rate, no scientist will deny that man has a number of instincts. In so far as he has them it is possible and instructive to draw some parallels to the above-mentioned examples of animal psychology.

1. A bird, as we saw, has an inborn scheme of its mother and, we may add, of other companions of its life. This scheme is, however, not perfect. It is supplemented by traits which

are won by experience. Likewise, a girl has an inborn scheme of her lover which is wide enough to be supplemented by experienced traits. We all have dream-like patterns of those companions with whom we care to associate. Our sympathies for our fellow men are intangibly predetermined by such affinities. There are reasons for our appreciation of a particular person. There are, however, never sufficient reasons for our liking or our love of an individual. Our impressions on first sight are based on hunches which are instinctive. When we meet somebody, something snaps and a specific relation is established. It is even probable that we equal animals in so far as we may be liable to make certain contacts at certain stages of our lives. A girl who does not marry in time will be less and less able to make up her mind because the instinct fails to prompt her choice—she does not feel the “snapping” and therefore is uncertain what she should do. One’s readiness to be a parent, a friend, a companion may not be the same all the time. Human life has its seasons. We could not shape our social relations in point-blank disregard of the instincts in which they are deeply rooted. Politicians will bear in mind that a dose of idealism and a sheet of paper are not sufficient equipment for drafting a constitution.

2. Walking may be a good example of an action in which instinctive and trained movements are co-ordinated. The baby knows instinctively how to move his legs; but the muscles which keep the body erect require some training. A child has to learn how to walk because his instincts do not marshal the whole coordination needed.

3. We need hardly put emphasis on the fact of the frequency with which intelligent means are used in order to obtain instinctive ends. How shrewd is a loving girl in making arrangements which serve her desires although, in doing so, she may not even dare to confess to herself her ultimate purpose. We are all full of secret plans which are very influential in motivating our decisions although we may not like to examine them in the light of our consciousness. Our intellect, in such cases, is much more eager to serve than to reveal instinctive ends. There is an old superstition that we destroy the power

of evil spirits when we call them by their names. Less talked about, because more alive, is this other superstition that we jeopardize the success of our projects when we speak of them. We like to pursue our most secret aims like somnambulists; yet we are very much on the alert whenever something goes wrong, and we try to mend the damage like the wasp which mends its nest.

4. The dog which would not take the meat from the table reminds us that training and reasoning foster instincts which counteract undesirable instincts and prevent us from following every first impulse. Shame may be an inborn instinct. If it simply were a matter of training we would not blush. But education can foster this instinct and build it up as a powerful counterpoise against less desirable instincts. Conflicts between instincts are probably very scarce in animals. They are frequent in man. When they occur they cause a delay, and the intellect has a chance to be brought into play. Psychoanalysis has dealt with this problem at length and established, and perhaps overemphasized, the thesis that the balance of our instinctive decisions may be destroyed and that serious harm may be done to our mental health if the interference of training or reasoning is accomplished without appropriate discretion.

As far as may be judged from the analogy between animal and human behavior, the intellect is an instrument which helps to secure the biological end of survival. It appears, in the light of this analogy, as subordinate to the instincts and embedded in them. Because instincts are blind, their rigid mechanism must be brought into contact with the incalculable changes of the external world. This contact is at first established by sense perception and, on a higher level, it is improved by intelligent interpretation of the sense data. But attention and interpretation are given only to the sense perceptions which are relevant to the instincts, and only in the direction which is relevant to the instinctive functions. The external world does not yet exist in its own right, as something detached from the individual and set over against it. It only exists in its interdependence with the individual,

and the knowledge of this world is merged into the response by which the individual restores its balance with the environment. The intellect, in this stage, is entirely linked up with instinctive actions and reactions. It does not dethrone the instincts, but is their obedient servant. The pragmatist, at this point, will be eager to assert that the service of the intellect involves the surrender of objectivity to utility and that the latter two are identical. How far he is right is still an open question which will be taken up later.

## *EVALUATING*

**L**ET us, then, take for granted that the intellect originally ministers to instinctive actions. Should we not hurry to add that the human intellect has, to a large extent, broken the yoke of instinctive guidance and taken over the reins? Is not intelligence the refined instrument which replaces the dullness of instinctive behavior? Is not man about to outgrow the guardianship of instinctive guidance? Has he not come of age through the development of his brain? Or if we are less biased against instincts, we may think that, to say the least, instinct and intellect are on equal terms and that some people trust their instincts whereas others follow considerations which are the product of their intelligence. On the basis of this view, we may carry on the comparison and say: Instincts are quick and often amazingly efficient but they lead to anticipations which may be erroneous. Intelligence analyzes the situation carefully. But it may be hard to find the way from the analysis back to that integration which is necessary for a decision. In terms of our instincts, the world seems too simple; in terms of our intellect, it seems too complicated for adequate action. The simplifying trends of the instinct and the differentiating views of the intellect are to be combined, and how much weight is given to either of them is an individual matter.

This seems to be a very common view, and it would probably not be so if there were not some truth in it. Still, it is not an adequate representation of the problem because the intellect cannot simply take over the place of the instinct. They are not of the same order. Instincts prompt action. We might as well say that instinct is action; but the function of the intellect is to see, not to act. With regard to action, the intellect has an advisory rather than an executive capacity. It clears the situation, it does not alter it. Between instinct and action there is never a decision. Between the intellect and action there must always be a decision which transforms the data of the intellect into motives for action and eventually changes the motives into motivation. The intellect suggests decisions,

it does not make them. If it did, it would be not intellect but will.

It will be necessary to define the usage of some terms before we go further. That which has become in the past shall be called reality or the world. That which may be expected in the future shall be called possibility. That which is in the making shall be called action. A movement of the intellect shall be called activity.

With reference to these definitions, we say: The object of the intellect is the world as it is or as it might be or the world as reality and as possibility. This thesis is of course not new. Its more modern presentations can be derived from Kierkegaard. It is made a strong point in Grisebach's<sup>3</sup> philosophy, and its implications have been capitalized upon by Bergson, Klages, Dewey, Whitehead, and others.

It has been said that the intellect is brought into play when instinctive action is frustrated or is not fully satisfactory. Instincts do very well in usual situations. When unusual events interfere, we hesitate, stop, think. Frustration is the birth hour of the intellect. An intelligent being first thinks, then acts in order to overcome frustration. Thinking fills the intervals between actions, especially those intervals which are full of unrest because the preceding action did not give full satisfaction and rest.

There is much truth in this view, but it is not the full truth. The process of learning and understanding is often but not always initiated by frustration. The young goose which studies the appearance of its mother has been looking for something. For what, it did not know. It has been ready to learn because it has been in a stage of its development in which it was expecting something. The young shrike was probably quite satisfied with its movements before it knew how to make use of a thorn. It was not likely to miss anything. But after it happened to find out about the thorns its satisfaction was even greater than before, and it kept its experience in mind; it learned from an accident. Human beings as well are eager to learn when they are ready to learn. They also take advantage

<sup>3</sup> Eberhard Grisebach, *Gegenwart*. 1928.

of accidental experience. The impulse to learn has not always its source in frustration, mistakes, shortcomings.

The temporal relation between thinking and acting is not so simple that one could say that one precedes the other. True enough, the reason must be earlier than the action which springs from it but we may do some thinking while we are acting. Our thinking accompanies our acting as a dog accompanies his master, sometimes ahead, sometimes behind, sometimes watching him, sometimes on his own track. They do not really go together. There is no real simultaneity of thinking and acting. They are not at the same time because they are not in the same time. The time of our thinking is extension. There is a past, there is a future, and the present is merely the intersection of the two. But the time which runs through our actions is destiny; its present moment swallows past and future. Life is eternal presence, never caught by the intellect, never watched, never becoming an object. Objects are distant, but that which is immediate presence cannot, at the same time, be distant. It becomes distant when it is gone. Then it is not life any longer but the trace of life in the world. The flash of a decision extinguishes the light of our thinking. When this light is on again, it controls and protects rather than directs the resulting action.

In some sense, the relation between intellect and action has become rather antagonistic. Deprived of the privilege of directing action, the intellect, in its higher stages, develops a realm in which it is able to enjoy its own sovereignty—the realm of contemplation. Indeed, contemplation is the activity which makes the intellect forget its role as a servant. Contemplation as an end in itself claims no less dignity than action. If it is true that, in the very moment of a decision, the objectivity of the world is suspended, it is likewise true that, in the very moment of intensive contemplation, the readiness for decisions is paralyzed.

As we contemplate the world in its reality we become aware of its possibilities. This new faculty destroys the simplicity of instinctive life. The situations we face allow for a choice of solutions. Sometimes our instincts will blind us to an alterna-

tive. In other cases, the complexity of a situation will be too conspicuous to be overlooked. It will not fit the patterns of our instincts. There will be alternatives which call for an arbiter.

The intellect pictures this diversity objectively but, being intellect, it does not have the power to bridge the gap between the subject and its detached views. In fact, the world of objects and possibilities, as presented by the intellect, seems to be a dangerous present, likely to prevent any action. Yet, our actions are not prevented. We do not stay at the spot and starve to death like Buridan's ass, but go into action and survive. When we feel ready for going into action there is always one among several possibilities which appears to be so relevant to our purpose that we want to realize the one rather than any of the others. It is the normal mark of a healthy life to come to grips with the environment as often as action is required. The grip is temporarily loosened while we discontinue our acting and restrict ourselves to consideration and contemplation. In our mental activities, our individuality is neutralized, and it is for this reason that so many approaches to a situation seem possible, and that we are able to entertain tentatively several different attitudes. But as soon as we tighten our grip again, many possibilities are no longer considered by us and orientation becomes possible. Whereas a detached mind is capable of many viewpoints, an individual in action has never more than one attitude, although he may not realize this before he acts. This phenomenon which neutralizes the danger of getting lost among possibilities may be called the solvability of every situation with reference to the individual who conceives the situation. Every individual is able and apt to conceive any possible situation in such a way that he can integrate it into his life according to his individuality.

Principles which describe life are not like principles in logic or mathematics. The principle that every situation is solvable does not hold absolutely and without exception. However, it is a principle because, whenever exceptions seem to be inevitable, there is a strong trend to restore the balance. There are certainly situations in which we do not know what to do.

“Hamlet-situations” occur in which there is no way out. But one deteriorates if one indulges in them. Life can almost be defined as the ability to overcome them and to set definite relations between the living being and its environment. The ways of our minds are ambiguous; the ways of life are not. A definite ambiguity in our stand towards the problems of life would be pathological. It would mean death. Everybody has to make an effort so that the principle will not lose its validity. He will make this effort as long as he loves life.

The effort which calls an envisaged possibility into actuality is called a decision. Instinctive life gets along without decisions because it does not envisage possibilities. It is the intellect which leads us to crossroads, and then we have to decide which way to go. There are three kinds of decisions: A habitual decision is the repetition of a decision in the past, a mechanical decision results from causes, a genuine decision is based on reasons.

Habitual decisions are certainly a way to make life easy. Identical situations call for identical decisions. Strictly speaking, situations are never identical but it takes strength to exhaust the novelty of a new situation. We readily assume that by far most of the situations we meet every day are practically the same as others which we experienced before. Hence, we stick to our old decisions and form habits out of them. Fixed habits have much resemblance to instincts although it is not likely that instincts, as some may think, are inherited habits.

Mechanical decisions can have various aspects. A person may do something because he obeys a given order, or because he is under the suggestive influence of somebody else, or because his action is motivated by superstition. One man will cast dice, another will make his decisions depend on external events, another will use a balance sheet and find out that there are more reasons for a particular choice than against it. In all these examples the decision is prompted by an external cause. Hence, a mechanical decision does not reveal much about the individuality of him who makes it. It is, of course, significant of a person that he makes a mechanical decision. It reveals that he is obedient or superstitious or the kind of man who

needs a balance sheet in order to find out whether he should marry. But the content of the decision itself reveals nothing; it is rational. He who knows all the causes may total their sum. He can calculate the decision because the irrationality of the personal element has not been brought to bear on it. The weight of every reason is determined in advance. They are items for an adding machine rather than nourishment for a hungry soul.

A genuine decision is the expression of individuality. It takes external causes into account, but transforms them into motives of incalculable weight and integrates them in a way the novelty of which does justice to the novelty of the situation. In a genuine decision, nothing is taken for granted. No prejudice bars the way to a complete and adequate union between individual and situation. The bonds of the past are cast off, anticipatory plans are suspended, a perfect malleability is reached.

Strictly speaking, no decision is ever merely habitual or mechanical or genuine. We have the habit of getting up every morning. Still, every morning we have to make a decision, sometimes not an easy one, whether we shall keep this habit. We do something because we have been told to. But whether we would obey or not has been a decision of ours. It is doubtful whether anybody ever has the strength to throw off every tendency which results from tradition or from his own past. We may, in our decisions, never reach perfect adaptability to every eventuality. The distinction between the three types of decisions will, however, be useful if we keep in mind the fact that it is only a matter of degree.

There can be no doubt that habitual and mechanical decisions not only do happen but are of great importance in a world the social structure of which should not, at any moment, be liable to jeopardy through the originality of Mr. Anybody. Human nature is so much behind the average sociability of animals that it needs the great amount of domestication and training which is brought about by obedience, suggestibility, and habits. Genuine decisions are of as much worth as the individual who makes them. They may be beneficent, they may

also be detrimental. But this sociological or ethical problem is not our primary concern here. We want to find out about individuality and about the elements of human nature. Therefore, our special interest is focused on the genuine decisions, which are most promising material for him who studies mankind.

The principle that every situation is solvable means that every individual has or approaches a definite relation to every factor which has relevance in it. This relation depends on the individual as well as on the factor. A fence around our vegetable garden means safety to us, an obstacle to a hare, a resting place to a bird. It carries the connotation of property for a passer-by and may mean an allurements for a rascal. Its meaning is originally a meaning to somebody. Its relevancy refers to a situation which is set by the way an individual looks at it. It is the individual who, by means of his very individuality, settles the question of what a fence "is." The fence, in other words, has a relation to the life of certain individuals before it is given a status in the objective world of meanings. In this sense, it has a "meaning to" before it has a meaning. The "meaning to" has motive value. Whatever occurs in the consciousness of an individual, acts primarily as a motive. A situation is solvable because its relevant factors are motives prompting action.

But this is obviously only half of the story. There are always several motives which are active. Otherwise the situation will not call for a decision but could be solved instinctively. If there are several motives, how can they be integrated into a motivation by which a definite decision is determined? Actually, the individual allows single motives to gain power only in such a way that they can eventually be satisfied by a single decision. Individuality is nothing but the ability to regulate the growth of motives in such a way that situations become solvable. This ability to arrange motives with a view toward the resulting action is the ability to evaluate them and to give each of them its due weight in the process of motivation. An individual being is able to solve a situation because it is able to evaluate the motives which bear on it. It is able to evaluate the motives

because the growth of the motives is dominated and regulated by the ever ongoing process of evaluation.

By means of evaluations which are typical of our individuality we sustain the impact of reality. This balance is our personal equation. The consistency of our individual lives depends on this center of our motives, thoughts, and plans. Its development has much in common with the development of an organism. It unfolds in such a way that the former and later moments interpret each other. Our former evaluations are alive in our later evaluations although the novelty of each moment always warrants chancing a step beyond the limits of our former evaluations. We venture this step in our genuine decisions. Actually, no moment is novel unless we stamp it as a novelty by a genuine decision. Beyond life, nature is, in most of its features, periodic. Life transforms nature into a realm the features of which are straightforwardness, irreversibility, destiny, and this transformation takes place in our evaluations. If life were mere adjustment to an external world, it would be just as periodical as that. Actually, there is a relation of mutual influence between life and environment. This mutuality is balanced in a succession of evaluations which mean adjustment and periodicity as well as creation and novelty.

## VALUES

**M**OTIVES are suggestions emanating from things or from the status of things. As mere suggestions, they do not imply necessity of action; they only open the eye for possible action. As long as life is based on instincts, reality is a whole, and nothing makes its appearance that is not integrated in this whole. The impact of controversial motives stimulates the intellect to discover a manifold of possibilities which establish the world as idea. In its first phase, this world is not yet a world of things but of motives; it may be called our subjective world. Everything belongs to it which is active in our consciousness, putting pressure on us or, at least, impressing us in some way. When we single out motives, making them a matter of contemplation, their pressure will be temporarily suspended and they will become constituents of the objective world. The meaning which they have for us will change into a meaning which they have in themselves. They are no longer in functional relation to our subjectivity, but appear in their own rights. Thus, the contents of our objective world are drawn from our subjective world. In the latter, the objectivity of its ingredients is still wrapped up—in what? Well, what is that which, in going backward from objectivity to subjectivity, converts an objective thing or fact into a motive again? The change is brought about by what shall be called the subjective value of the thing or fact. Motives, as ingredients of the subjective world, are things or facts tinged with the flavor of subjective values. The fence of our vegetable garden is not just a fence but a thing which protects the vegetables, which looks ugly, which should be mended. It affects our feelings in various ways. We know what it means to us before we know what it is in itself. In this view, the nature of motives seems to be complex. But that which is complex in intellectual analysis is not necessarily complex in its primordial nature. Splitting is the very method by which the intellect comes to grips with an otherwise one-piece unit.

Motives exert pressure. They may be strong or weak. If they call for instinctive action their strength and growth can be

estimated by the speed with which the action is released and the manner of the release. In this case they should, however, not be called motives but impulses. An impulse becomes a motive when it takes on the character of a subjective value. This step is taken as soon as the motive is felt in relation to other motives. The complexity of such a relationship modifies the strength of every motive involved, the subjective value of a motive indicating how much it is worth in comparison to other motives. Instinctive action is not motivated by subjective values but is prompted by impulses which do not call for evaluation before they tip the balance. Intelligent action is motivated by subjective values, and its motives call for evaluation because they are many and complex and often mutually antagonistic. A subjective value is the weight which is ascribed to a motive when it is evaluated. This weight renders the strength of the motive relative.

In the light of the intellect the subjective world changes into an objective world. That which has been the subjective value of an object now parts from it and is forgotten when the object is defined. The subjective value may also attract attention. A fountain pen is enjoyed as a useful tool. However, when we stop to think about it we recognize a tool which is an object and, abstracted from it, a usefulness which in itself is also a possible object, that is, an objective value. Objective values are abstractions based on the experience of subjective values. We would not know about usefulness if we had no useful tools. But it has always been the usefulness which we enjoyed in them, whether we knew it or not. Objective values have a two-fold function. If present, they make a situation appreciable; if lacking, they call for realization. We enjoy the usefulness of a fountain pen or the kindness of a neighbor and we may also be driven to invent useful tools or to be kind to our neighbors. A value is that which gives satisfaction and, more often than not, we have to take action in order to obtain satisfaction. In the latter case the value produces an Ought which is the guiding light on our way from want to satisfaction. In following this light we feel reassured that our actions make sense and that our objectives are justifiable. We act because we feel we

should. If we are asked why we act we do not refer to our feeling but to the objective value which is realized through the action. Objective values establish the meaning and justification of our actions. Reason interprets and justifies our preferences and decisions in terms of objective values. Logically speaking, objective values are prior to subjective values but this does not mean that they exert their influence from somewhere beyond. They simply reproduce the organization of our decisions in rational terms. Every decision can be explained as the realization of objective values. Every individual develops in a chain of decisions which can be understood as evidencing a system of objective values. They are the tracks which direct our motivations and preferences. Our motives have the tendency to crystallize not at random but according to certain patterns which are the structures of objective values. To understand the patterns is to find the motives justified.

Both subjective and objective values always refer to given situations. Useful tools are useful only when applicable and actually applied in given situations. Usefulness itself cannot be defined without some reference to an idealized situation. The abstraction which changes subjective values into objective values destroys the momentary pressure of the motive but not its relation to possible action. Only with regard to their possible fulfillment in possible situations do objective values make sense. The features of possible situations are inherent in the conception of objective values. These features are our guiding schemes when we realize values.

This reminds us of the schemes which, according to Uexkuell, release instincts. The warbler, as we remember, feels stimulated to feed his young if the stimulus is given by a certain scheme. The features of this scheme include a certain nest of a certain shape at a certain place, and beaks in the middle of it which are wide open and show a certain design. Geese are more intelligent than warblers and their corresponding scheme is poorer in its features. The higher the intelligence the more nearly void the scheme and the larger its applicability to given situations. The features which are likely to be lost are those which are irrelevant to the biological purpose of the

scheme. In the scheme of the warbler, all features are accidental except those of the hungry young which want food. If we reduce this scheme as it may develop in higher animals and eventually in man we may get something like: Wherever young are found in need of help, the help should be given. The situation of "young in need" includes an Ought which affects us as a strong appeal. When we see young in want something snaps in us in the way of an instinct and we feel that we ought to help. If we are asked why we help, we refer to the virtue of helpfulness towards children which is an objective value, explaining and justifying our help in rational terms.

The swan which defends its nest provides another example. The features of the scheme which stimulates the swan can be boiled down to the notion of property. There is an Ought in the situation of owning property which tells us that we should guard it. If it is in danger we try to protect it and if we succeed in protecting it we feel satisfaction. There are, however, values greater than property. For the sake of those, we may decide to share our property or to give it away. Even so, we do not really root out our instinct for property but only shift its realm of validity and meaning. We shall still claim the right of a personal sphere which belongs to us intimately and should be safe from any intruder. The last zone we are ever willing to give up is the freedom of our personal decisions. In short, there always remains a basic wish for seclusion and privacy in us in which the original sense for property survives. Whenever this privacy is endangered the Ought is felt to restore it, either by changing the facts or, if this is physically impossible, by way of a new interpretation.

Stripped of their accidental features, many animal instincts survive in man as typical interpretations of model situations. Man reads model situations, to which he has a typical reaction, into actual situations. He meets only such situations as will resemble the patterns of those model situations and can be understood in terms of them. This does not mean, of course, that he is aware of two situations, an actual situation and a model situation, which are set over against him side by side as objects of comparison and contemplation. This hypothesis would be

just as absurd as the idea that a spider compares its actual situation of being hungry with the ideal situation of being filled before it decides to seize its prey. The event is emotional rather than intellectual, a feeling rather than a thought. The congruence of both situations is felt as satisfaction, the incongruence as an Ought. It should also be noticed that the Ought is stronger than the satisfaction. The latter is not even felt unless it turns out as the fulfillment of an Ought. How is human thought initiated? Is it that man opens his eyes and sees himself surrounded by things and starts asking questions about the nature of these things? This is not so. Strange as it sounds, human thought is initiated by things which man does not see rather than by things which he does see. He discovers the deficiencies of his environment before he discovers the environment itself. His first questions do not deal with things he has but with things he misses. His consciousness is on the alert when a situation is not what it should be by standards of his model situations. This lack of satisfaction makes him sensitive to subjective values and opens the avenues of the intellect towards reality.

If life were perfect and no dissatisfaction ever felt, we would hold to a dream which would be a row of model situations embodying a system of objective values. We are not so fortunate. Disturbances occur all the time. They put pressure on us to restore the dream in a chain of decisions which are based on evaluations. Acting is prior to reflecting. As long as the whole process is not an object of reflection, the model situations are typical and satisfactory ways of reacting in typical and not unpleasant circumstances. As soon as this process becomes an object of reflection, the model situations reveal their character as objective values, and the original dream of an ideal life survives as the aspiration of what life should be. Reality is discovered as that which falls short of our expectation. Young birds are sometimes terribly frightened by an insignificant change in their usual environment. But it does not seem to upset them a bit to wake up one morning and to find everything covered by the first snow. Although snow, in fact, is a danger for birds it is a typical event which has its fixed place

in the lives of birds. They "expect" this event, and when it occurs it is not a matter of sorrow and fear. They do not seem to notice it. Only an "unexpected" event disturbs them and makes them stop to think what it may "mean." The typical actions and reactions of a bird have the tendency to proceed according to an ideal scheme which is conditioned by a typical environment. As long as this scheme works the bird is happy and the occurring events are within the scope of its "expectation." Events which encroach on this scheme arouse fear, sorrow, attention. In a similar way, human beings suffer the encroachment of reality upon their dreams of an ideal life and come to grips with the objective world. The features of reality as man is aware of them have reference to his expectation. He does not meet a situation unless he is equipped with weapons to withstand it. He does not recognize a situation unless he is equipped with a set of objective values which enable him to understand it. He expects model situations, but finds himself confronted with situations which are not satisfactory. In them, the constituents of model situations have deteriorated. No longer do they represent objective values. They take on the character of motives, that is, of subjective values which are of relative standing and which call for evaluation. The obstacle which releases this change is objectified and interpreted as the "thing-character" of the constituent factors. Thus the things and facts are discovered which constitute reality. Needless to add, the transition from objective values to reality is not a historical event in the development either of mankind in general or of an individual in particular. Developments in life cannot be explained unless reference is made to the ideal status from which, if looked at from an intellectual viewpoint, reality appears as no more than a deviation.

The basic pattern of man's subjective values is doubtless in-born, like that of his instincts. This does not mean that both sets of patterns are ready to function when a child is born. They develop and become active when their time has come. The situations to which they are applicable will not be met before a certain stage of the mental and physical development has been reached. The feeling for subjective values can be

trained and strengthened but not awakened by education. A small child does not know what stealing means. He has no eyes for the beauty of scenery. Nor can either be explained to him. But as time goes by he will know what stealing is and he will see the beauty of a landscape without much explanation.

In many ways, values resemble instincts. Nor is there any doubt that a great number of values can, without much difficulty, be derived from instincts. This holds particularly of those economic and moral values which are instrumental in the survival of individual or race. For this reason, there is a great temptation to describe the life of ants and bees in terms of human values. But what about values like beauty, honor, reputation, glory? What about the virtues which go with human thinking, like objectivity? Will it ever be possible to derive such values from instincts comparable to those which we find in animals? It seems more likely that the human race has started new series of values, the final ends of which are more sublime than mere survival. Man, after all, is more than an intelligent animal, or at least he can be if he lives up to his endowments. Life and survival mean much but not everything to him. His aims transcend the boundaries of instinctive action.

There are more reasons for keeping instincts and values apart. The model situations which awaken the feeling for subjective values have fewer features than the schemes which stimulate instincts. Therefore the applicability of values is greater. If this seems to be a matter of degree it immediately leads to another difference which is not a matter of degree: Instincts are compelling, values are suggestive. Instincts can be defined in terms of actions because the impulse behind them is necessarily and immediately transferred into action; but the feeling of values the realization of which is desired leaves time for consideration. Actually, subjective values call for many more Oughts than can ever be realized. They open our eyes to a world so rich and complicated that we can never hope to master it entirely. Instinctive beings enjoy a world which is perfect whenever satisfaction is obtained. If any living being may be called perfect, instinctive beings will have the first

claim on this title. Those conscious of subjective values will always feel that the world is below what it should be and that they are below what they should be. As it is beyond the power of a human being to bring about all the changes in the world which he thinks are desirable, he has to make a choice between what to tackle and what to leave untouched. Worse than that, values, as has often been noticed, are sometimes mutually contradictory and lead into conflict situations. We have to sacrifice some of them if we want to achieve others. Instinctive impulse and action are the same thing. Between values and actions, there is time for a decision. As long as animals are driven by instincts their only chance for freedom is in becoming tired. When their dull senses no longer register the instinctive impulses in an efficient way the animals are free of them.

This does not sound like much freedom, but organic cells, as a rule, have not even that much freedom. They are not free to get tired, they are only free to die. When they cease to function they cannot start again. Man has the benefit of the freedom which death bestows. He has the benefit of the freedom which sleep bestows. In addition, he has the freedom of his decisions while he is awake. This is the freedom of differentiating and evaluating values.

Man evaluates in accordance with his individuality. It is his nature to have purposes and to make plans. Hence, he is able to appreciate whatever is expedient to his plans and to judge objects in terms of their usefulness. It is also his nature to live in groups. Hence, he is able to appreciate whatever is expedient to group life and to judge group members in terms of their co-operation and social virtues. His actions open the avenues of his thoughts. Isn't this a dangerous position? It seems as if the individual is given power to dispose of objective values arbitrarily. However, this assumption is far from true. Man does not, after all, choose his individuality or the values which go with it. He cannot play one against the other casually as it suits his purposes. They frame his thinking and are protected from the whims of a detached and irresponsible intellect which would expose them to sheer arbitrariness. Man is permitted to contemplate values, but as soon as he tries to make one of them

the immediate aim of his purposes it escapes. For instance, it is a good deed to give to the poor if the person is driven by the impulse of humanity, which is an objective value. But if he does it only in order that he or other people or God may know that he is good, then he is not good. Such a deed does not go to his credit. Its objective value was lost when he tried to catch it. Scheler<sup>4</sup> has made this point. Subjective values are motives embedded in situations. We have the situation in mind whenever we realize a value. Objective values are not motives. We must forget them before we are able to put them into practice and to have the benefit of the satisfaction they bestow on us. Our thinking splits the factors of a given situation into facts and values. We consider the facts and may consider the values, but before we make our decision we must reunite the two. We do not feel the impact of a value unless it is submerged in a motive which is inherent in the facts. If we give to the poor for the sake of giving rather than for the sake of the poor, the good is our deed, but our deed is not good. In a good soul, the need of the poor stirs up the motive of giving without any emphasis on the question of whether this is a good motive. In our decision, we reunite the fact of a need with the wish of eliminating it, and if we do so we are good. But if we want to be good rather than to help the poor, we reunite an occasion of boasting with the impulse of our vanity, and as we like to show that we are good we actually show that we are conceited.

Objective values are not objectives of our acting; they are objects of our thinking. They are an intelligible way of describing the preferences which we select in our individual evaluations. Their function is to map out rather than to order. A map tells us which ways have been travelled and paved by others; it does not tell us which ways we should go. Sometimes we prefer an untried and dangerous road, and if we blaze a new path the map has to be revised. The new way may be given a new name, but the name is not always of importance. When we know a person well we discover many personal values in him which we cannot even name. We just see them.

<sup>4</sup> Max Scheler, *Der Formalismus in der Ethik und die materiale Wertethik* (3. Edition; Halle, 1927), p. 22.

They are clearly before our eyes, they explain to us the behavior of the person and tell us what to expect from him. They really seem to be the force by which the person is driven. And yet, he does not know it. To him, every decision seems to be the result of a struggle in which a whole set of values has merged. Like all abstractions, objective values are simplifications and, as such, guiding lights for the intellect but not for the sense of responsibility.

Idealism has, however, often vindicated a stronger position for objective values. According to this view, their general layout is given, independent of the knowledge, of the opinions or decisions of any individual. Values are not merely universals which help to classify our preferences. They do more than constitute the intelligibility of a situation. If we follow those idealists, values are absolute norms which advise us how to take action; they are moulds into which life pours its contents; they are that which is steady while everything else is in progress; they are, in their highest perfection, the attributes of the divine being.

Scheler<sup>5</sup> has shown at some length why this view is open to criticism. His point is that moral facts are "Tatsachen der materialen Anschauung," that is, facts which are not approached in a process of thinking but which are immediately given. We do not actually see them as we do a table but we virtually sense them in pretty much the same way. This view of Scheler's certainly becomes much clearer if we think of values in terms of model situations. They are usually not identical with real situations, and it is this diversity which is lost in the oversimplification of objective values but which means everything to the individual when he has to solve an actual situation. In comparison with objective values, situations are complicated as are the motives which push the decision. In our evaluations we experience values as a struggle of motives which gain the shape of a whole only through our decision. Values are related to each other and obtain definite standards only in relation to the situation in which they occur. In the presence of a higher value, a lower value fades away and may be converted

<sup>5</sup> *Op. cit.*, p. 165 ff.

into an evil. There is, however, no definite order of rank among values. They outlaw each other, and how they will do this can never be told in advance. It all depends on a given situation or on the way a person interprets it. In short, it is the ever-experienced diversity of model and actual situations which keeps the interest in values alive. The interest dies if the values are removed from life and lifted into the sphere of the absolute. Our senses are fixed on model situations when we have objective values in mind, and these model situations are far from being Platonic ideas.

If the development of mankind as a whole is taken into consideration, the position of the Platonist seems even less tenable. In the course of human history, situations have doubtless become ever more difficult. Subjective values as inherent in situations have also become more complicated. Situations emerge from former situations which are tinged with subjective values, so that these become building stones in the edifice which symbolizes human progress. They take part in this development. The history of mankind produces historical values of increasing importance. Objective values are the very vehicle of this development. The question is whether they stay put or develop. The Platonist will plead that they are stationary hinges on which all development turns. He will add that we could not measure nor even know the development if we did not have yardsticks against which to measure it, and yardsticks are not supposed to change. The answer to this argument is that objective values are no more durable than the ends to which they refer. Survival, for instance, has been a dominant end ever since living beings have come into existence. It has not ceased to be an important end for men. The objective values relating to survival are still valid. However, survival is not the only end of man. Nor is it his highest objective. The value of survival and every value of that which guarantees survival has become lower in rank and sometimes disappears. Other values have arisen. There is one group of them which is particularly related to situations: the personal values. They are as high as any values and still transitory—or is there any doubt? They develop and fade according to the

exigencies of the situation. They are objective values, and yet nobody will call them absolute. One reason for this is that they are highly differentiated. Indeed, the world of values seems to explode. It has rightly been stated that people of rich personalities find it much harder to come to agreement on value issues than do simple-minded people. There is no proof whatever that the center of our evaluations is once and for all set and fixed. Nor is it to be taken for granted that the order of values has a pyramidal structure. We know of no yardsticks which will be eternally good. Life develops into ever richer forms which are unpredictable. At least, many of its features are not periodic but irreversible. How can we know that the unpredictable will be ruled by something we know already? How can we hope that rigid standards will always catch up with the flexibilities of life? Where is the guarantee that the Oughts which will spring from unpredictable situations will be of such types as we already know? The future is beyond the realm of generalizations. In time to come man may find himself pursuing ends hitherto unheard-of, and if he does he will have the yardsticks at hand for measuring the progress he makes.

The final test, however, for the idea of absolute values is the idea of perfection which necessarily goes with it. If values are to be absolute they must needs be perfect. There are, in general, two kinds of universals, those to which the measure of perfection can be applied and those to which it can not. The idea of a square is the idea of a perfect square no matter whether we have ever seen one or will ever see one. We know exactly its shape, and its size is irrelevant. But nobody knows the shape which a tree or a house may have to make it absolutely perfect. Trees and houses are found in our experience; therefore it is meaningless to speak of the perfect tree or the perfect house although in many instances we know that a house or a tree is more perfect than another one. Squares are not found in experience; their idea is purely a product of our thinking, and is apt to measure reality rather than to be abstracted from it. For this reason, the idea of the square is perfect. At least, we may take this Kantian view for granted

although we do not know whether future generations will approve of it. Our question is: to which group do objective values belong?

Mathematical perfection can be achieved in pure thinking without ever referring to reality. Euclidean geometry is perfect in itself whether or not it expresses the relations of actual space. A mathematician can make his discoveries while he forgets about the world. The only test of mathematical conceptions is that they be coherent. But values are not coherent and do not draw their meanings from such coherence. Whether they mean anything or not cannot be discovered by comparing them or integrating them into a system. They are adherent to the event in which a concrete person meets a concrete situation. They are tested in this event and are ever novel and tinged with personal flavor. They can only be encountered in the impact of reality. They belong to our lives and not primarily to our thinking. They are found nowhere but in the satisfaction which we get from real things, facts, actions and they call for continuous realization. Therefore, Anselm was right in postulating a being which would continue to realize the absolute values. If we take the existence of absolute values for granted, as Anselm did, they must somehow be material and incorporated in a being which is living and acting and rightly called God. Indeed, Anselm should have gone further and should also have stated that the existence of a perfect being is not imaginable without the complimentary assumption of a world in which the perfect being realizes his perfection. This, of course, would be a perfect world and cannot possibly be identical with our world which we know as being far from perfect. It may be true that the world we know appears imperfect to us but perfect to God's mind. But will a human being ever have the power to identify itself with the view that our world is perfect? If this were ever the case, this person would know what he is talking about when he speaks of absolute values and of absolute perfection. For him the existence of God would be beyond any doubt because he would observe the perfect actions of a perfect being on a perfect world. But as long as we understand our world as imperfect

we cannot conclude from it the necessary existence of a perfect being. In other words, Anselm's argument fails to be valid for no other reason than that the idea of absolute perfection is not supported by any experience which would give it real meaning.

Incidentally, if the argument were valid its gain would not be the one desired. Before asking whether God exists, our first question should be: "What are we able to know about the nature of God?" If this question could be answered, the sense in which God exists could be determined. Take a table, a person, electricity, the dative, justice—they all exist but each of them in another sense. Philosophers have dealt with the modes of existence at length; but do such inquiries add much to our knowledge of a table or of the dative or of justice? If we know the nature of the thing indicated by the noun we also know the way it exists. The noun modifies the verb. If we knew the nature of God and made the statement that he exists we would establish another mode of existence, and this might be interesting, but it would not add to our knowledge of God as we had it before. For this reason, the arguments for the existence of God should rather be understood as attempts to explain the nature of God, be it as the perfect being or as the necessary existent or as the final cause or as the final end or whatever the case may be.

If we try seriously to clarify in our mind the image of a perfect being the idea will carry us no further than to show us how we should be ourselves in order to fulfill the promise of our gifts. The nearest we can get to a vivid picture of perfection is the assumption that the potentialities of our nature be realized. We know well enough, however, that we shall never have an adequate idea of God by simply enlarging and idealizing the picture of our own personalities. We rather sacrifice the vividness of the picture in favor of a construction which sums up a variety of values, regardless of their structure and affinity, like mathematical items.

It is a dogma which has its origin in mathematical thinking that every series calls for integration and that where there are degrees there must be a peak. Where we see a scale we

assume an end to it. If actions or persons are more or less perfect there must be actions and persons either in existence or at least hypothetically capable of existence which are absolutely perfect. It is, however, a fact that the approach to the absolute or infinite is often deceptive or elusive. Concepts and propositions if applied to the infinite easily lose their shape and meaning and become even identical with their opposites. The conception of the infinite is fallacious.

Suppose that gold is the standard by which wealth is measured. If this is the case, the wealth of a country increases with the amount of gold it is able to hoard. But if a country ever succeeded in hoarding all the gold of the world, would it then be the wealthiest country? Apparently not. Gold loses its value as a medium of exchange if it is all in one hand; it maintains its value only as long as it is distributed. The same is true of those values which are supposed to constitute perfection. Stretched to the infinite, they lose their meaning.

The most perfect being is said to be almighty. But power is a relative conception. It is the ability to overcome possible resistance. Where no resistance is possible the meaning of power is neutralized. A being which never knows resistance does not need power because it would not use it. Nor could it know what power is. The objection may be made that the possibility of resistance is always imminent but is vanquished from time to time by absolute power before it materializes. But what is this possibility? Is it potential energy which is latent or is it a potential factor which never becomes active? In the first case, we should miss the natural force by which every potential energy is counterbalanced. Our conception of energy would be wrong and would have to be discarded. In the other case, we would speak of factors which are never active and are beyond the nexus of causality. Any way, we are entangled in a net of contradictions as soon as we try to figure out how an almighty being can possibly be in active contact with this world. Absolute power is absolute lack of power. It is nothing. There is no real meaning behind the word.

The perfect being is said to know everything. But the body of knowledge is not a perfect system, once and for all settled;

it rather resembles a growing organism. Knowledge answers questions. Questions accumulate like cells in a body. They are in functional relation to certain postulates and vary as the postulates vary. Whatever seems to be an ultimate goal of our knowledge when we view it from a distance appears to be relative when we approach it; there is always more behind it of which we had not been aware before. Our knowledge is conditioned in many ways, and the conception of knowledge loses its meaning when we cut it off from its conditions. Knowledge is relative; it cannot be absolute. The knowledge of man has more relations than the knowledge of animals just as the cells of his body, according to their highly-differentiated functions, are more interrelated than the cells of a low organism. It is wrong to believe that higher degrees of knowledge bring about an emancipation. Knowledge is not a quality inherent in certain beings. It is a process in which those beings establish more and more strongly their ever increasing contacts with a world. Absolute knowledge means absolute absence of questions. It means absolute ignorance. It is nothing. There is no actual meaning behind the word.

The perfect being is said to embody justice as an absolute virtue. What does that mean? The primitive idea of justice is "an eye for an eye, a tooth for a tooth." Much as has been said against it, it is at least a natural desire that the punishment should equal the crime. As a matter of fact, in innumerable cases the punishment has been and still is greater than the crime. Let us suppose that justice has neutralized a certain crime which has been committed by a punishment which equals the crime. Is this a complete restoration of justice? It is not. The culprit has also an argument. He has committed the crime because he wanted to compensate for something. If his argument is bad it may not entirely be his own fault. It may, to some extent, be the fault of his parents or of the social order in which he is bound to live. If anything wrong has happened it is always an arbitrary way out to lay the whole responsibility on just one person. Whether or not Dostoevski is right in saying that everybody is guilty for everybody, it is undeniable that the responsibilities of human beings are inter-

woven in a fabric. Once we start out to restore justice on earth in an absolute sense we may have to undo the whole creation. Unless we want to stick to the slogan: "Fiat justitia, pereat mundus," we must introduce a new element into our jurisdiction which is the very reverse of justice: forgiveness. Absolute justice is annihilation. The conception of justice calls for the conception of forgiveness as its balance.

The perfect being is also said to embody infinite benevolence. But if benevolence becomes absolute, it breaks down justice and every ethical standard. Our ethical standards are not entirely determined from within. People often do a wrong thing with the best conscience of the world. In the field of politics, examples of this thesis are more frequent than anywhere else. Sometimes an inner voice tells us what to do, sometimes it does not; especially it does not if the person concerned is abnormal. The individual interpretation of what is good and evil has to be deepened and limited by norms in which individual diversities are counterbalanced in the interest of a group, and the ethical standards which are set this way have to be enforced by justice. If the worst criminal is sure of finding grace how shall he ever be sure that crime is crime? The word grace loses its meaning if grace ceases to be an exception. It is one of the highest and most difficult virtues to forgive and to be benevolent. But if this virtue becomes absolute its blessing is gone and its meaning also.

As the cardinal virtues do not stand the test the minor virtues will even less be expected to stand it. Every virtue loses its sense if raised into the absolute. The discrepancy becomes even more apparent if we try to transfer all those absolute virtues to the same being and to see them as a combination. How can a being be almighty if he knows everything? If he does he also knows the future. If he knows the future he has no future. If he has no future he has no way of making decisions. If he has no way of making decisions he is not almighty. He is cut off from progress, development, destiny, activity. Justice and benevolence cannot be raised into the absolute either without annihilating each other.

A way out may be looked for by avoiding the mistake of iso-

lating the single properties which constitute perfection. We may try to integrate them rather than to add them up. But this attempt makes the mistake all the clearer. Every personality is virtually an integration of such properties. It is, however, impossible to line up personalities by grades of perfection. Personalities do not develop along linear avenues towards perfection. Their development is identical with the absorption of environmental features which are too complex to allow for a scheme of mathematical simplicity. Also the concept of personality becomes meaningless if we try to isolate it from its relation to the environment. Personality and environment (or the situation which is the environment here and now) are complementary notions, involving each other. The most perfect being cannot be thought of as a personality except in relation to its environment. What is the environment of the perfect being? Is it its own creation? This would not do because the environment must react in order to prompt the development of a personality. The idea of a most perfect personality simply does not make sense unless we know something about the environment of this personality, which we obviously do not.

Charles Hartshorne<sup>6</sup> succeeds in avoiding some of the difficulties mentioned above. He assumes that God is absolutely perfect only in those dimensions of his existence which are abstract and independent of the distinction between possibility and actuality. His perfection is, however, relative as far as he conceives and experiences the world and depends upon actuality as such. He plans the future in general outlines but leaves his creatures at freedom to make genuine decisions and to play a role of their own in shaping the future. Consequently he does not have previous knowledge of all the details which may occur but he knows the actual as actual and the potential as potential. Omnipotence and omniscience are claimed as his properties only in a qualified sense. He is unsurpassed by any other being and unsurpassable and has all the values that exist but he will surpass himself as time goes on because the next moment will create new values and add to the value of God.

<sup>6</sup> Charles Hartshorne, *Man's Vision of God and the Logic of Theism* (Chicago, 1941).

The first part of this theory which asserts God's absolute perfection in a metaphysical sphere is based on the presupposition that conceptions which are derived from actual experience can, by way of formal deductions, be applied to dimensions which are beyond the world. In drawing logical conclusions of this nature the mechanism of our thinking is no longer controlled by any experience covering the results of our thinking. Thus we arrive at conceptions which are empty and at statements which are not verifiable.

The second part of Hartshorne's argument is based on the presupposition that God experiences the world in a fashion which is, in some of its aspects, comparable to our own experience. This should not be taken for granted. God may have better ways of being in contact with the world than are accessible to us. One way human beings have of approaching things is to come to know about them. We have some knowledge of the world and the assumption is that God has a perfect knowledge of the world. Anselm includes the future world which Hartshorne does not but both obviously mean by perfect knowledge a complete knowledge. How can there be a complete knowledge unless there is a finite number of facts which can be known? Actually, knowledge does not cover a definite supply of knowable facts, not even as far as the past is concerned, but is an ongoing process which is fed by dissatisfaction and creates new facts and new problems all the time. Knowledge can never be complete and a being which has knowledge can never be perfect. Those who differ from this view think that the mind is a mirror, which it is not.

This argument is by no means meant to prove the non-existence of God. The intention is to prove that the idea of God as the most perfect being is anthropomorphic and self-contradictory. There are better approaches towards the divine being than that of fancying him as representing in perfection what we represent in a manner far from perfection.

Certainly, there are degrees of perfection. They imply the necessity for a permanent struggle, but not the idea of absolute perfection. Nor are we tempted to apply this meaningless formula if we think of values in terms of model situations, refer-

ring to a given set of circumstances. We measure length by length, weight by weight, situations by situations. There is no guaranty that the set of objective values which is at our disposal will allow adequate judgment on any situation which may, in the future, occur. Time and again, we have to recast our value system in that process in which alone we rise to the level of present situations. We called it the process of evaluation.

If evaluation were a matter of calculation, Life would remain on a stage of periodicity. The future would be determined by the past and exclusively by the past. There would be no way of contesting that the values which dominate this cycle are absolute values. Actually, our decisions are more creative than our reflections. Our reflections refer to that which is given and as such has become reality. But that which has become reality belongs to the past, and the past is a closed system. Our reflections do not trespass the border of this closed system. Thinking, in its last analysis, is a technique to comprehend the past as a closed system. The future is a possible object of our thinking only as far as it is an implication of the past. Decisions, however, shape the future. They mould that which is not yet given and may mould it in a way which is unpredictable. Reflections make sense, decisions establish sense.

Objective values, as categories of our thinking, are good enough to catch the sense of the traces which our evaluations, as a succession of creative moments, leave behind. They are good enough to tell us in any case whether our decisions have been good decisions. They are not good enough to tell us in any instance whether our decisions will be good decisions. When, in the process of evaluating, we restore the unity of personality and situation, it may, once in a while, happen that we handle the situation in a way which cannot sufficiently be explained by established tendencies and values. New values may come into being, as new situations provoke new forms of behavior. New inventions, be they gun powder, automobile, radio, call for new virtues. Future events are unknown; so are future values.

## *THE FINAL ENDS*

**T**HE presented view seems to leave Life without sufficient orientation. If decisions are ventures into the unknown how can we ever know in advance whether we take the right route? How can we be responsible for what we decide? How can we put pressure on our fellow beings and enforce rules which make community life possible? How do we know that the progress of human culture is leading somewhere and that human life has its meaning and its dignity? Is Life worth living?

What is Life after all? Obeying our instincts, we live it; developing preferences, we feel it; objectifying our preferences, in terms of values, we come to know about it. The first stage precedes and, in a way, constitutes the second stage; the second stage precedes and, in a way, constitutes the third stage. How does the simplicity of the first stage unfold into the divergent explicitness of the other stages? Is there any guarantee which will prevent Life from losing its hold and being drowned in a multiplicity of incompatible and incalculable values and ends? Is it safe to live a man's life as it seems to be safe for an amoeba to live its life? What is the meaning of human life? What are its risks, its ends?

A being which lives its life instinctively and only instinctively is unable to reflect on it and to have it in an explicit way. Nor is such a being confronted with a variety of possibilities. It has no choice. Its drive is unambiguous. Where there is no room for errors, freedom and necessity are identical. The being wants to do what it is compelled to do, and it is compelled to do what it wants to do. Properly speaking, there is no compulsion and no wanting. Everything happens just the way it happens. There is no otherwise. Every moment is self-explanatory. Life is what it is, and there is no question about it. The conditions of life are taken for granted. Every move which will catch up with these conditions is right. The behavior of such a being as it appears to us from our bird's-eye view seems to be dominated by a feeling of confidence. Such a being acts as if it feels that life is worth living and that

it has a right to live and to do whatever may secure its life. The belief in life seems to be the background of its philosophy. Of course, animals have no philosophy and no background, and do not ask about right and wrong. They do not reflect on life. Therefore, our sentences about the feelings of animals are not permissible in a scientific account if they are taken as an attempt to contribute to the psychology of animals. But they are not meant that way. A being which never felt hunger does not know how it is not to be hungry although it practically lives in a condition of not being hungry. If it ever occurred that such a being became hungry it might remember that before it was not. Only then might it say: "I was never hungry before." But this sentence does not make sense as long as there has been no hunger at all. If a man says: "Trees are well off; they never feel hungry," he actually makes a statement about himself and not about trees.

The point of our argument is to make a statement about the philosophy of man and not about that of animals. Certainly, animals and even men, in an early stage, will not ask questions about the meaning of life. But there will be a time in the development of mankind when doubts come up concerning life in general and human life in particular. Must everything be the way it is? Are we on the right way? Does our life make sense? As soon as these doubts are felt man also feels that a security is questioned which he had before "in that golden age" without ever knowing it. A doubt is a sort of want, and whenever we feel a want the background of it is a realization of that which eliminates the want. We take for granted the fact that the normal state of affairs is absence of wants. Whenever wants occur they are accompanied by an Ought which urges us to eliminate them. Life does not become problematic, nor will our thinking be entangled in the intricacies of difficult problems, unless there is a basic belief that, on principle although not always in reality, all problems can be reduced to a stage in which they disappear. When we feel hungry we interpret our former condition to the effect that we have not been hungry before, and from this assumption we are confident that it is possible to restore our former condi-

tion. When we doubt, we interpret our former condition to the effect that we had felt security and confidence before, and from this assumption we have the hope that it must, on principle, be possible to restore the former confidence. These statements can never be reversed. He who never felt a headache does not know what a headache is. The first headache will teach him not only what it means to have one but also what it meant not to have one. Freedom of wants and disturbances is the basic condition of every living being. If this freedom is disturbed an Ought is felt and an effort is made to recover the freedom. If this effort is successful satisfaction is felt. But before the disturbance, there was not even a feeling of satisfaction. The background of every satisfaction is the perpetual imminence of a disturbance which has been experienced before and may return. The background of every disturbance is the confidence that the disturbance is a derivation from a satisfactory condition which can and should be restored. This is a commonplace as far as hunger and pain are concerned. Its implication should also be seen as far as uncertainties, doubts, questions are concerned. Hunger and pain indicate disturbances of bodily functions as they are reflected in our consciousness. But the disturbances which set the functions of the human mind in motion are not different. Being disturbances, they draw their meaning from that condition in which they are neutralized.

To human minds, the world has become problematic. But its key is still that simplicity which, from our point of view, seems to dominate every movement of life in its first stage. When a living being is mature enough to see alternatives and to make decisions, the simplicity of instinctive life turns into a guarantee that situations are solvable. When a living being is mature enough to reflect on the world, the simplicity turns into a guarantee that it is possible to make valid propositions. There is always a possibility that in acting we are able to cope with the problems of a situation, because, by means of evaluating a situation, we are able to restore that simplicity which reveals to us the obvious way of handling a situation. There is a possibility of establishing the cogency of a system in our

effort to understand the world, because our minds never reach beyond the set of possibilities which are implicitly given in former evaluations and are therefore determined by the co-gency and simplicity of Life itself.

When we see the conflicts of this world we like to think of a time when every conflict could be solved in a simple way. When we see the problems of this world we like to think of a time when everything was a matter of evidence. This golden age has gone. In fact, it has never been in existence. It is a mirage, but a mirage which is the indispensable complement of our agonies. We posit the former existence of this age as we discover the disturbances of our own world. We would not dare to envisage these disturbances if we could not, from this vision, gain the certainty that it is worthwhile to struggle for the elimination of the disturbances. We would not recognize the disturbances if we had no means of reaction. As we see it, our tasks have grown out of former gifts, and we are confident that the tasks can be fulfilled. The allegedly naive conviction of a primitive living being is that all it does is obviously the right thing to be done and that it has the right to do it. In more sophisticated human beings this conviction is converted into a firm belief that actions are measurable in terms of justification, and thoughts in terms of truth. The satisfaction which seems to characterize the primitive stage of instinctive living appears as the principle of justification in the second stage and as the principle of truth in the third stage. There is no certainty that, in conflicts, we always choose the action which we can justify. There is no certainty that, in the case of a problem, we always find the solution which is true. But if it were not for the sake of justification and truth we would not be able to act and to think. This principle is called the rationality or intelligibility of the world and it implies the solvability of its problems. The question of whether life has meaning and orientation can be answered in the affirmative.

This orientation is not, at least not primarily, due to the intervention of a magic force which arranges everything for us in a way in which we can cope with it. It is the law of de-

velopment, valid in the progress of the human mind as it is anywhere in organic life, that every venture into novelty centers around a new relation between that which brings about the change and that which is changed. This new relation is prior to the change and dominates the change. We seem to change the world by what we do and by what we think. But our changing only reflects new relations which have developed without our adding anything and which guide our steps. When somebody, for instance, becomes sick his relation to food will alter. He will begin to dislike dishes for which he had a liking before because, in his changed condition, he somehow "knows" what is good for him to eat and how much he should eat. It may be that he expresses himself about his new way of evaluating food and that he looks for a scientific explanation. If he does he will justify his altered attitude to food either in terms of values or in terms of a nexus of causes. But this justification is accidental. What counts is that man, or any living being for that matter, in a new situation develops new relations to his world. The result is a new approach which is not necessarily supported by calculation and which still prompts sensible action. There is, in a sick person, that purpose which aims at recovery and guides his steps towards a quicker recovery. He is possessed by this purpose before he even knows that he has it.

A change in the situation is a good moment to become aware of such purposes. Actually we are guided by them all the time. Under normal conditions, the question of food is not of vital importance and we are not noticeably punished for every minor mistake we make in eating. Even so, we know pretty well how different kinds of food agree with us. Even animals have this "knowledge." Once I watched a cow which was feeding on grass in a meadow. Nearby was a spurge which had about the same color and height as the grass and was hardly noticeable. The cow, while eating, did not seem to make much use of her eyes. Would she be able to smell the poisonous herb? Even if so, it would be difficult for her to locate the origin of the smell with sufficient accuracy. I expected her to eat the spurge and was greatly surprised when I saw how

neatly her tongue grasped all the blades around the herb without ever touching it. A few minutes later, the whole spot was bare except for that spurge. I felt I had witnessed a great miracle. The way a living being selects food is guided as it were by a purpose, and where there is a purpose we are used to ask for the intellect which directs its accomplishment. Actually every situation is pregnant with purposes which stir up uneasiness long before they ever become an object for the intellect to think about. The total of our existence is involved in the purposiveness of our relations to actual situations. Not only our bodily needs are taken care of that way, our spiritual needs are as well. All our activities are initiated by a feeling of uneasiness. Of course, it does not explain the miracle of the feeding cow if we say that she feels uneasy about the spurge. It is a miracle in the sense in which the existence of life as a whole can be called a miracle. Cows would probably not exist if they did not have this "knowledge" of what is good for them to eat. Life could probably not come into being if living beings did not feel incentives comparable to the selective appetite of the cow. We may be inclined to define life as a manifold of selective appetites which crave satisfaction. This definition, at least, makes it clear that life is kept going by the eventful play of such incentives. They are the basic miracle to which all other miracles can be reduced. It would be only natural if we took this miracle as a matter of course since the most common things are usually the last ones about which we wonder. In this particular case we are surprised because it has become difficult for us to separate intellect and purpose. We say that the "knowledge" of the cow is not really knowledge but works like knowledge. Thus we explain "knowledge" in terms of knowledge. Actually it is the other way around. "Knowledge" makes knowledge possible. Before it becomes knowledge, "knowledge" is a lively play of incentives and aversions which establish purposeful relations between a living being and its world.

The nature of these relations cannot be determined primarily in terms of objective values. Certainly, objective values are standards by which we justify our actions after they have

happened. We explain our preferences and decisions by reference to objective values. We say that we do or prefer one thing because it seems more valuable than another thing. Speaking in terms of values, we can compare, make clear, give reasons. Values are tendencies in so far as they include the claim of being justified. Actually, all tendencies include this claim. Not all tendencies are moral, but they all tend to satisfaction. Satisfaction can be accomplished in many ways and has many modes. Correspondingly, the different modes of satisfaction can be expressed in as many values. If an action is not good in a moral sense, it may still be convenient or profitable or pleasant. There is a sufficient motivation behind every action, and this motivation can be expressed psychologically in terms of tendencies, axiologically in terms of values. In psychological analysis we examine the drive which led to action, but in axiological analysis we examine the goal of the drive. The purpose of axiological analysis is to justify the action (or to pass judgment on it) with regard to its ends. It is, however, clear, at least in the case of instinctive action, that the end is not always known. In many cases the end cannot even be felt because it is remote and beyond the experience of the individual. The tendencies minister to the ends before the ends are known or even felt as values. A mosquito puts its eggs into a pond where the emerging larvae will find suitable living conditions. If this can be called wisdom, wisdom can be blind.

Can wisdom be blind? We are no mosquitoes, but do we always know the last wisdom of our plans? This wisdom often seems to be a delicate fabric which is in the making. We work at it, but other forces also work at it, and there is no way of telling exactly how these forces will alter the design. If we are guided by predictions, they are predictions *ex eventu*, anticipating the future in terms of the past. If we base our actions on the ground of reasons, the Why which we pondered while we anticipated the effect does not easily follow us into the process of evaluation. It conditions the fabric of our plans to some extent, but not exclusively. In other words, in the very process of our acting, something becomes efficacious which is

beyond the control of our intellect. In the novelty of genuine evaluations, old classifications submerge, and uncertainty prevails. We do not even know for sure how the results of this process will affect our conscience. Of course, we can guess, and our guess may be good. It may also be wrong. It is possible that we will repent of our action more than we ever thought we would. It is possible that we feel perfectly comfortable about a decision which, in our anticipation, seemed to bear on delicate issues. Whatever our guess may be worth, it does not necessarily give momentum to our decision and may disappear at the moment of our final evaluation when the blind wisdom of our tendencies is restored.

The incommensurable factor which interferes with our anticipations is, of course, in functional relation with those changes of the environment which occur while we act on the latter. A chess-player makes his plans on the basis of a present situation. He may plan five moves ahead but he has an inadequate knowledge of how his opponent will move. After two moves, his whole plan may be upset. It is well that he has time to think about a new plan. There is always a moment of standing still between two moves. But Life is not that simple. We have to go on, while our intellect does not always catch up with the changing aspects of reality. We do not exactly know what we do, and yet we feel responsible for what we do. We must have some guidance which is quicker than the intellect. We must be able to cope with those unpredictable changes which alter the aspect of our environment while we act on it. We could not feel responsibility if our evaluations were left without direction. There must be a wisdom in our actions which is blind, irrational, never brought before the forum of our intellect. Our intellect establishes causality; our genuine decisions are determined by ends which we do not even see although we have a relation to them.

It seems to be a highly problematic venture to introduce into a scientific argument a principle which is supposed to be active but can never be a direct object of our thinking. We are never able to know and to analyze our final ends, but we cannot help assuming that they exist. There is circumstantial evidence for

their existence as well as the testimony of an inner voice, commonly called conscience which whispers secret knowledge into our ears. These final ends have caused a great deal of embarrassment in science. Neither can we do away with them, nor are we able to subdue them satisfactorily to the well known laws of causality. Final ends constitute that principle which makes organic life enigmatic. They need no brain as a medium through which to affect the functions of an organic being. The cells of a body have no brain. Still they function as if they "knew" what they had to do. They seem to "know" something about the body which they serve. Famous experiments with embryos have shown how cells sometimes change their functions if extraordinary events endanger the life of the organism. On the other hand, there is no evidence whatever that the presence of a brain will stunt the efficiency of our final ends. As we cannot help acknowledging their efficiency in the lower stages of organic life there is no reason to deny the possibility of their influence on man. As an organic cell or an insect undoubtedly has a "knowledge" which is no knowledge, man also has a "knowledge" which is not and will never be knowledge. How is he affected by it?

In a sense, we might say that the mosquito feels responsible for the survival of its species when it lays its eggs in a pond. If this sounds like nonsense, human responsibility is not far away from this seeming absurdity. If a person is liable to be punished because, through his negligence, other people have been injured or killed, the law limits the responsibility to such accidents as can be foreseen. But we feel that our responsibility reaches beyond the range of human law. We feel responsible not only for what we plan but also for the unpredictable results of our planning. We feel responsible for what we are as well as for what we do, although we have no adequate knowledge of what we are. More than that, we do not only feel responsible for how we affect the world but also for how we are affected by the world and, to some extent, for what happens to us. Our responsibility covers our individuality as it is, and the way this individuality fits into the world. It covers

the whole history of the process by which the individuality shapes its relations to the world. It is a late product of intellectual functions to see the ego and the world in which the ego lives as two separate entities. The feeling for responsibilities is prior to this separation. In this feeling, the ego and the world on which it acts are still a unit.

Responsibility is felt as a demand. This demand may be compared with the Ought which springs here and now from a given situation. One difference between the two is obvious. The Oughts can be satisfied. The demand can never be satisfied; for it is nothing but the perpetual command to satisfy any Ought which comes along. This difference may not, however, discourage us from drawing another parallel which seems to have much to its advantage. The Ought as we saw it has its origin in a discrepancy between a given situation and a model situation.

The demand has its origin in a discrepancy between what we are and what we feel we should be. It seems that we measure our individuality as it is against a model individuality which indicates what we should like to be. Indeed, we even have a special term for this model individuality: we call it personality. What is personality? It is the fulfillment of all promises which are laid out in the structure of our individuality. It is the redemption of all demands which are felt in our responsibility.

All we ever did or neglected to do, all we ever thought or left unthought, or we ever felt or failed to feel can be understood by that formula which makes up the traits of our individuality. Our past testifies to this individuality. Our neighbors expect that our future will likewise testify to this established individuality. Our individuality is what we are when seen from outside. It is a scientific conception which can be verified and further determined by psychological tests and to some extent even expressed in figures. Nor can we file a claim with anybody that we are more than the test of our past proves us to be. We are bound to believe in our individuality whenever we reflect on ourselves. It is the picture in which our personal contribution to the shape of our past becomes visible.

Our individuality is our self, and there is nothing behind this conception of our self but the picture of our individuality.

However, he who knows our individuality does not know us entirely. He may know everything about our past, but he cannot make irrefutable predictions about our future. We are, and are not, identical with our individuality. We are identical in regard to our past. Our future is not determined by a formula. It is beyond determination. We are free and responsible. Our freedom and our responsibility cannot be taken away from us by the assertion that we are what we must be and that we do what we must do. While we are bound to acknowledge our self we believe in our better self. While we cannot claim to be worth more than we ever proved to be in the past, we believe in unexpected potentialities which may develop in the future. Whatever our neighbors, with good reasons, expect us to do, we are not compelled to do something again just because we did it in the past. We escape the bondage of our past—not just for the sake of a pleasant change but for the sake of a mission which we feel is laid upon us. We do not take our individuality for granted but hope to outgrow it. We could not even know about our individuality if we were not able to compare it with the idea of its own perfection, and it is nowhere but in this context that the idea of perfection makes good sense. The contours of the picture which represents our individuality are in mutual relation to the contours of that model individuality which corresponds to it. No individuality is ever perfect because it is known only by its deviations from that which is perfect. If we did not know what we should be we would have the right to be what we are. All animals have this right. We do not have it because we have come to know what we should be. Our right has been converted into a duty. We sacrificed the primitive belief in our right to be what we are; the gain which makes this sacrifice meaningful is that we have a future, and everything which goes with a future—ideals, freedom, responsibility. Our ideals allow us to know what we are in our limitations and deficiencies. Our freedom allows us to strive beyond these deficiencies. Our responsibility urges us to live up to our ideals.

This dramatic development does not absorb every moment of a lifetime with equal vigor. But the more the pressure of our model individuality becomes visible in our actual individuality, the more we are said to have personality. It is, therefore, possible to identify that model individuality with personality. We might say that personality is the successful restoration of individuality as it develops in the course of human life.

Personality, we might also say, is that which we always want to be and which many other people are. We can never ascribe it to ourselves; it is that ideal demand of which all our deeds fall short. But in others we can see it realized. It is, even as seen in others, different from individuality. It is less tangible, less measurable, less articulate, less describable. We catch it as an expression, but if we want to give words to this expression, our language seems to be too conventional. Words catch that which is repeated—but personality does not repeat. Individuality can at least be analyzed into traits which repeat although their specific combinations do not. But the analysis of a personality calls for a poet rather than for a psychologist. It is an organic whole which cannot be dissected without being destroyed. An individuality can always be understood as the embodiment of objective values. A personality cannot be fully understood that way; it is beyond the capacity of objective values. Its unique charm resists classification. It has not its equal.

The contrast between personality and individuality has its parallel in the contrast between life and the world. Individuality is the interpretation of personality. The world is the interpretation of life. To interpret means to compare, to measure, and to explain "in terms of something." Our interpretation catches the traits of a personality or the features of life as they can be compared, measured, and explained "in terms of something." The traits or features are commensurable entities which compare with the incommensurability of a personality as lantern slides compare with a moving picture or a frozen river with the flowing stream. We know exactly what a mile is. But it makes a difference whether it is the distance from my home to that of a friend or whether it separates the trenches of two

enemy countries. We know exactly what an hour is. But it makes a difference whether we spend it in waiting or in a theater. We know exactly what a dollar is. But it makes a difference whether we obtain it by doing hard work or by gambling. The world in which we live can be explored scientifically. And yet, the world means more to us than science will discover.

If man is determined by final ends they should be expected to account both for the explorability of individualities and for the intangibility of personalities. Being rational, they must account for the fact that individualities can be defined by a definite set of properties. Being irrational, they must account for the fact that personality is never exhausted in a scientific formula. How can any entity ever be rational and irrational at the same time? How can it, at the same time, be and not be a possible object of our thinking? We seem to face the alternative of voting for either of the two possibilities. Nor is it a pleasant alternative. If we plead for the rationality of our final ends we admit that we are able to know them. If we know our final ends we lose the freedom of choice. A living being which is determined by finite ends is not free. On the other hand, if we say that the final ends cannot be known we make the mistake of introducing a principle which cannot be verified. It should be understood that everything which somehow bears on our minds can eventually be brought into the light of consciousness and reflection. The only way out of these difficulties is the acceptance of the theory that the final ends are possible objects of our thinking, but that they lose the property of being final as we approach them in our thinking. They are knowable but inexhaustible. All finite purposes which we come to know about prove instrumental to more remote ends which we still have to discover. The reasons we can give for what we do are never our ultimate reasons. It is significant that we are not even particularly eager to know our ultimate reasons. We like and dislike; we love and hate; why we do, we are not anxious to know. If we knew it, our love and hate would deteriorate. Knowledge, at this point, is hostile to life. We may be anxious to know something in general about the final ends of mankind; but we do not want our

final ends to be analyzed because we feel that we may lose rather than gain by it. We try, often successfully, to get to the bottom of those things which are objects of our knowledge; but we never get to the bottom of ourselves. Hocking puts it this way: "I am a shade beyond any limit that I can discover: and there is, in this capacity of reflection, a promise of indefinite growth. Infinitude is on the side of the self which knows itself to be finite. And for the self which knows itself to be caused, *causation has ceased to be the whole truth.*"<sup>7</sup>

Everything which keeps its identity while it becomes an object of our thinking belongs to the world as determined by finite ends. Everything which loses its identity while it becomes an object of our thinking belongs to life as determined by final ends. Finite ends are the coordinates fixing the identity of entities which otherwise oscillate in the flux of life. Final ends are the ferment which time and again revolutionizes our thinking. We understand our final ends only in terms of finite ends, and this is why we understand ourselves only in terms of our past, and the world only in terms of that which has become reality. If we determine the happiness of our fellowmen as one of our ends, we immediately start to interpret the structure of human society in terms of conceptions which bear on the question of happiness, and we even think of means which may allow us to measure, as it were, the amount of happiness in other individuals. If we determine the practical conveniences of life as one of our ends, we immediately understand the world in terms of technical possibilities which allow us to take possession of all the goods on earth and to have them at our command. If we hold with Socrates that nothing is more important for us than to know ourselves we immediately start to see our individualities in terms of traits which can be analyzed and compared. Finite ends catch the flux of life under certain aspects which are organized and can be interpreted. But we cannot help remembering that our finite purposes as we recognize them never do full justice to our final ends and that life is more than the sum of its aspects.

<sup>7</sup> William Ernest Hocking, *The Self, Its Body and Freedom* (2. Edition; New Haven, 1930), p. 151.

No ethics should be based on finite ends, nor can any of the highest values be thought dependent on them. Finite ends can be put into words. Whatever can be put into words can be argued. If we say that beauty is harmony, the paintings of Rembrandt can be subjects of dispute. If we say that beauty is expression, the paintings of Raphael can be subjects of dispute. The ultimate charm of paintings is beyond that which the painter may deliberately have wanted. And still, an old Rabbi has no beauty unless there is a Rembrandt to discover it. That is to say, beauty cannot be defined according to the wishes or considerations of any single person and yet, cannot be thought of without reference to a person. Values develop in personalities. Rembrandt found a beauty in the faces of old Rabbis which nobody before him had been able to appreciate. Neither is the beauty of Van Gogh's paintings the same as that of Rembrandt's. Ask a great painter why he is appreciative of that sort of beauty which is expressed in his paintings. His answer will probably be that he found himself in it. We find ourselves in the highest values. They depend not on our finite but on our final ends. Their dignity is the dignity of our final ends. Their function is to present to us the world in which we are bound to live in the light of our responsibilities. They are beyond interpretation, argument, arbitrariness. They are also beyond definite accomplishment. They are ends which never lead to an end. We call them ideals. It does not do any harm to their dignity if we see them in connection with the final ends which build up personalities.

We all live in the same world. The sameness of this world is established because we eliminate subjective values and subjective shades of opinion as we focus the entities of this world in objective fashion. Snow is snow whether we like it or dislike it. Red is red even though some people see it as grey. A mathematical theorem is valid even though some people cannot understand it. Our personal feelings and preferences do not change the world, they only articulate the accents which differentiate our personal pictures of the world. Science discovers the peculiarities and laws of this world without any reference to personalities. The results of science can be shared

by all who are intelligent enough to understand them. The diversity of personalities does not interfere with the objectivity of scientific systems or scientific interpretations. The name of him who makes a scientific discovery is irrelevant to the discovery. We also claim the category of sameness for ourselves as we are persons, one distinctly different from the other, everybody identical with himself but with nobody else. The principle of individuation holds of ourselves when we stop to think about ourselves as it holds of every object in the world. I am different from you. It is, however, remarkable that no child will say "I" before he is able to notice himself from outside and to be the object of his own thinking. When we say "I" we see ourselves with a vision which has been intellectualized.

We are possible objects of our thinking; but we are, in the first place, subjects of our thinking. We think in terms of objects which we see before us, but we are at the same time aware of our thinking and enjoy its process. Husserl calls the subjective end of our thinking "noesis" as opposed to the "noema" which stands for the objective end of our thinking. Alexander calls the subjective part "enjoyment." C. Delisle Burns, in "The Contact Between Minds,"<sup>8</sup> takes up Alexander's term. "Enjoyment is defined as that experience which distinguishes awareness of the mental process from awareness of an object in or through that process."<sup>9</sup> It "means the living through or living in a mental process."<sup>10</sup> There is, of course, a close interrelation between the object and the enjoyment of its perception. Neither is given without the other. "The subjective element is not given 'to itself' but 'to an object.' . . . The object of contemplation 'attracts attention.' Now when the object attracts attention, the subject is given. When the thing contemplated appears, the mental process is given. The reality called mind is like all other realities in being given; but it is given in a special way, called enjoyment. Enjoyment then is the reverse of the relation of contemplation. It is the subjective element 'for' the object."<sup>11</sup> Burns' point is that in

<sup>8</sup> London, 1923.

<sup>9</sup> *Op. cit.*, p. 43.

<sup>10</sup> *Op. cit.*, p. 45.

<sup>11</sup> *Op. cit.*, p. 83.

our enjoyment of mental acts we feel that we are in contact with other minds or in a sense even identical with them. "One aspect of joint enjoyment seems specially to unite minds, namely that in reference to which is given the awareness of ultimate values."<sup>12</sup> "Communication . . . is the means by which the ultimate goodness, truth, and beauty come to be known; for these are, as it were, the special objects of that kind of process which is enjoyed jointly."<sup>13</sup> "The presence of 'another' mind is clearly implied in any perception of truth, goodness, or beauty, and the other mind thus present is not a part of *the object* but of the subject."<sup>14</sup> The categories of our thinking depend on this enjoyment which we share with others. "Mind being essentially minds-in-communication, those objects which are pre-eminently for minds in communication are perceived *first*, and only as the distinctions and divisions of minds become more complex do the other objects appear."<sup>15</sup> Consequently, he suggests: "In nature and in logic, beauty is in awareness first, and then extension, and then, only at the third remove, the greenness of the tree. Similarly, goodness is in awareness first, then that there is an act, then that it is your act or mine. So also in the sphere of knowledge, in nature as well as in logic, propositions are 'in awareness' first, then appear scientific objects, and then, thirdly, the sense-data from which we are supposed to abstract the other objects of knowledge. We know or are aware of the fact that one and one make two *before* we are aware that things are extended, and we are aware of both of these facts *before* we perceive color."<sup>16</sup>

If we accept this view of Burns, the principle of individuation is not experienced in our awareness and enjoyment of mental activities. It is not we who do the thinking; something is thinking in us. We are not identical with ourselves but participating in the mental process of what might be called a collective mind. Others have an active part in our thinking. Of course, as soon and as often as we focus our attention on ourselves we are singled out and left alone as persons who are

<sup>12</sup> *Op. cit.*, p. 96.

<sup>13</sup> *Op. cit.*, p. 74.

<sup>14</sup> *Op. cit.*, p. 77.

<sup>15</sup> *Op. cit.*, p. 113.

<sup>16</sup> *Op. cit.*, p. 112.

identical with themselves and with nobody else. In this case, the part others have in our thinking appears as no more than consent. It is not constitutive of our thinking, nor does it add to the cogency of our thinking. Being accidental, the consent may be missing. Somebody's thoughts may be shared by nobody else and still be right. But no one is convinced by the results of his thinking unless he feels that the progress of his thinking is made under a pressure which will be felt by others and lead them the same way.

It is difficult to set forth this view in adequate terms. Too easily do we yield to seeing a performance before our eyes. There is the "I" pleading for its thoughts. There is the secret audience of the "many" who listen, criticize, reject, finally consent. We must not forget that this is only a picture. There is not the "I" nor are there the "many" in our actual experience. As the experience of the "I" is lacking, the sentence "I think" does not make more sense than the sentence "Many think in me." The fact is that our thinking is impersonal although our thoughts are personal. We experience this fact in a feeling of confirmation which accompanies our thinking. It simply seems natural to think the way we think, and we naively assume that everybody should think the same way. Our thoughts seem to have a force of suggestion. We readily assume that everybody should be receptive of this suggestion, and we are surprised to find people not convinced by what seems to be convincing to us.

Our feeling, in this respect, is not different from our thinking. The contents of our feeling are most personal and characteristic of our individuality. But in the act of our feeling, the awareness of the "I" who feels does not play a paramount role. We enjoy the beauty of a picture. The beauty is not in us but in the picture and impressed on us. If we think of others we assume that they should also be impressed by it and join in our feeling. The beauty is simply there for anybody, like the air which we inhale, and others inhale also; or like a smell which we notice, and others notice also.

If this is so, the question arises: how does the "Thou" ever come into the picture? Is it a late accomplishment of our ob-

jective thinking that we distinguish between ourselves and others? Obviously not, for even animals are doubtless able to make this distinction without much objective thinking. Burns is not very explicit on this issue. He says: " 'Other minds' are enjoyed in the same sense as 'my own' mind is enjoyed."<sup>17</sup> "There is a distinct type of enjoyment, which is genuinely enjoyment and not contemplation, within which individual minds appear. There is every likelihood that 'your' enjoyment appears earlier in my experience than 'my' enjoyment and that in fact I discover other minds *before* I discover my own."<sup>18</sup> Just how it happens that we become aware of other persons in our enjoyment of mental acts, Burns does not reveal. On this point, however, his book is most fortunately supplemented by Max Scheler's book about "Wesen und Formen der Sympathie."<sup>19</sup> Scheler's argument is to the effect that we experience our fellow-beings in a different way and rather earlier than we do objects. The I-Thou relation is at least as deeply rooted in us and as important as the I-It relation, although they are entirely different. The I-It relation involves exclusiveness. The "It" is that which "I" am not. In our objective thinking, everything is different from that which it is not. The principle of individuation keeps every entity in isolation. The I-Thou relation, however, is not under the law of this principle. My relation to the Thou is not based on the principle that the Thou is that which I am not. Both have something in common which is not mere resemblance but a genuine feeling of partial identity. The nature of this feeling is not easily discovered. The I-Thou relation does not exclude the I-It relation. We see our fellow-beings also as objects. Being objects of contemplation, they are different from us. Their individuality is not our individuality. We know this, and it is not easy to keep this knowledge in suspension while we inquire into the nature of the I-Thou relation. But how could we ever read the eyes of another person if we did not have a share in the sameness of this person? We hardly identify ourselves com-

<sup>17</sup> *Op. cit.*, p. 43.

<sup>18</sup> *Op. cit.*, p. 72.

<sup>19</sup> See note 2.

pletely with him. Feeling appreciation, approval, consent, sympathy, love, we go through all shades of identification. We also feel strangeness, disapproval, antipathy, hate, and dissociate ourselves. Should we assume that our identification would be complete if the other person were exactly like ourselves? Scarcely! We sometimes feel disapproval, antipathy, even strangeness in regard to ourselves as we compare ourselves, maybe unconsciously, with our better selves. It also happens that we are attracted by that in which other persons are different from us. If it were otherwise, how could the different sexes attract each other? The lines of association and dissociation are drawn by the system of our objective values which manifest our functional relations to our final ends.

In our actions more than in our thoughts it becomes obvious how other persons are involved. We feel responsible for others in what we do as well as in what they do. Some of our actions are based on merely altruistic motives. We protect others and help them. Their actions make us proud or embarrassed. We feel that we are honored in others. We also feel that we are guilty for them. Responsibility which includes others is called solidarity. How far our solidarity reaches is a question of our personality. But no person is easily excluded whom we know intimately, and even animals are largely included. We are all from the same stock and basically alike in our striving no matter how conspicuous our differences appear to be. Our final ends greatly overlap, and for this reason the principle of individuation cannot be applied to the I-Thou relation. Life is not uniform but full of antagonism and of tension. Still it is not a gathering of many entities which are as clearly distinguished as we see distinguishable entities in the objective world. In striving towards our final ends we feel that we fulfill a task in which the single human being means little and any accomplishment belongs to many. Even past and future generations whom we never saw and shall never see speak to us, and their secret orders have weight in our decisions just as the mosquito fulfills the will of its offspring. The weight of those influences is greater than we ever know. The accumulated wisdom of many beings coerces us under the

camouflage of our own responsibility and does so at its very best when we do not know it. As far as it becomes a matter of distinct knowledge, its motivating power may be jeopardized by a factor of arbitrariness which will hamper the effect. The intellect is always apt to convert the deep necessity of personal decisions into a pleasing variety of fallacious choices. As soon as we are aware of our motivations we are beyond their power. In fact, egocentric motives get more support from the intellect than do altruistic motives. The intellect is an isolationist. In the mirror of consciousness altruistic tendencies degenerate, and values which we represent become ideals at which we aim. Still, isolation is not the condition which fosters the development of personalities. Robinson Crusoe has no personality as long as there is no Friday around. Personality is the response to calls rather than to needs. We stand for something that is bigger than we are, and as we may become aware of our individual ways of organizing thought and action in this service, we may also become appreciative of the efforts others make to live life through to its final ends. It is inherent in the conception of final ends that they be shared by many. Life would be very dull for us if we ever felt lonesome with regard to our final ends. In fact, it would be meaningless. No individual feels able to live up to his final ends. He needs his fellow-beings to make up for his deficiencies, and he cannot claim their support unless he is ready in turn to make up for their deficiencies.

There are two kinds of sin. The one kind is an offense against our better self. Whenever we commit a sin of this sort we are aware of it and may repent of it. Such a sin is accidental. We may repeat it, we may also improve. Our conscience is on the alert against it. There are, however, people who are great sinners but not likely to be tormented by a bad conscience. They would never agree that their doing is sinning, and there is no hope that they will ever improve. On the contrary, if they did not sin their conscience might warn them that they are weak. Their sin is fundamental because their eyes cannot be opened. They would not understand. They are not in communication with those whom they wrong, and they have only

a limited feeling for solidarity. Their final ends are either perverse in themselves or of little power. The range of their overlapping with the final ends of others is small.

In the abnormality of great criminals the fundamental sin becomes quite obvious. But no human being is free from it. It is the original sin from which we all suffer because the range of our solidarity is limited by necessity. We may share responsibility, dignity, honor with many a creature, but never with every creature. The life we live is not identical with the abundance of life which is revealed in the objective aspects of nature. Our minds may look at this abundance from all angles. As acting beings we represent only a small sector. We are doomed to belong to a community of limited range because of our singularity which at the same time sustains and confines the community. It sustains it—for our singularity is our contribution to the community. This community is not a fixed entity. It is in progress, and we are this progress in the singularity of our decisions which we make on behalf of this community. Our singularity also confines the community—for our singularity is the organization of our abilities, and they are limited. Nor can we undo the fact that life lives on life. Life would be perfect if it were a pleasure to be eaten. Unfortunately, our solidarity does not extend that far. There is no pride in being food. We sacrifice our lives if need be but not our dignity. The meaning of a sacrifice is not the negation but the affirmation of something. If we give away our lives we do it for that for which we stand. We are exclusive. Life is split into amities and enmities. We cannot say "Thou" to every creature, and against those to whom we cannot, we are apt to sin.

We differ from each other not only in our individual behavior but also in our final ends. They separate us from other human beings as well as connecting us with them. Separating us, they cannot be identical with the final ends of God. For God is certainly not our partisan. Connecting us, our final ends cannot be understood in terms of our individualities. They are beyond the range of man as man understands himself and below the range of God as man understands God.

There would be no necessity of introducing them as a principle if man could ever grasp the last meaning of his ways on earth. His ways do have a meaning which is within reach; but what he grasps is always the yarn while the ball escapes. We can start to analyze our destiny and our future but we never finish. We follow orders and understand them, but not the source from which they come. Our evaluations are always a step farther than our understanding, and the sequence of these steps is well organized although not planned.

It is to Newton's credit to have discovered that the same law causes an apple to fall from the tree and a planet to circle the sun. Much less ingenuity is required to see that the teleological principle which we observe everywhere in nature becomes a matter of personal experience in our own growth. Is it not good to know that we can have a direct share in those all-dominant purposes than which there can be nothing more secret and sacred? If we like to think of God as of the creative power which manifests itself in the universe we may well regard ourselves as legitimate partakers of the divine symposion which celebrates the creation, since we add to God's reality whenever our final ends coerce us to exercise our productive talents in responsible ways. If, however, we prefer to think that God is pure love and in perfect solidarity with every creature, our hatreds divorce us from that heavenly feast unless divine grace allows even a humble sinner to have a seat at the lower end of the table.

## *UNDERSTANDING AND EVALUATING*

**M**ANY philosophical difficulties spring from the fundamental error of assuming that organization must always be preceded by a plan and that planning must always be preceded by objective thinking. It is difficult to see that this assumption is an error. Our objective thinking results in planning, and planning results in organization; this is the truth, but the less important part of the truth. We are organized before we organize. Our steps are planned before we plan them. In fact, if there is a danger of becoming disorganized, it results from our objective thinking rather than from any lack of objective thinking. In our objective thoughts and planned decisions we follow a model, and whenever we deviate we become disorganized. Genuine thoughts and actions underline rather than create this model, for it is created in our responsibility. We speak of responsible thinking as well as of responsible action. Only those thoughts and actions which are backed by a feeling of responsibility really belong to us. It is this responsibility which warrants the continuity and consistency of our thoughts and actions and which organizes our mental activities. Since evaluations are the function of our responsibility, our mental activities depend on our evaluations.

We come to know about our objective thinking by means of objective thinking. We overrate it believing that we owe to it whatever gives us superiority over other living beings; we even wonder how they get along without the ability for some objective thinking. We readily admit that objective thinking is not the only root of our actions, but that we are driven by instincts, passions, feelings, preferences, emotions. These seem to be inferior guides in which we should not trust unless they are controlled by our objective thinking. According to rationalism as it is expressed by Leibnitz our feelings are knowledge which has not yet become clear and distinct and is of inferior type. Others speak of subconscious motives which bear on our decisions, the implication being that it would be

better to bring such motives into the light and under the control of consciousness. In fact, every motive which is active in us can be made an object of contemplation, and in many cases it is desirable to control the momentum of our emotions by becoming aware of them. But if it were ever possible for a man to pursue this way to an end and to know himself completely, he would be the driest of pedants rather than have an ideal personality. Nor is it possible to attain this end, because the more one knows about himself the more will he be an enigma to himself. The desirable end is a balance between those traits of our personality of which we are conscious and those traits of which we are unaware. This balance is normally restored because as we come to know some of our motives new motives are brought into activity. The larger the area comprehended by consciousness, the larger, in general, the area not yet comprehended. Try to know yourself, and you will grow. But it is wrong to conclude that a motive draws its value from the degree to which it is known to us. It is wrong to conclude that confused feelings are necessarily inferior to distinct notions. Our feelings are confused only in that they are fused together. They are not disorganized. Their organization is, in fact, stronger than the organization of our distinct notions.

Language is a good example. An analysis of the language brings forth a complicated system of rules, and there is nothing which cannot be explained by a rule. The interpretation of a language, however, never comes to an end. That is, the depth of a language will never be exhausted by a definite set of rules. As long as we consciously apply the rules a language is foreign to us and we are not living in it or speaking it as a living language. In speaking our native language we hardly ever go by rules, and still we speak it correctly. If we ever stopped to think about its fine points and intricacies it would be difficult to find an explanation, and yet in speaking we are not in doubt about them. Whenever a conflict arises between our feeling and a rule it is the rule which is abandoned as obsolete or wrong. Sometimes we are creative in our language and go beyond that which has ever been caught in rules still knowing that we are right and will be understood by others

who live with us in the same language. What a phenomenon to the eyes of those who overestimate consciousness! The bare fact is that the highly complicated system of any grammar borrows its organization from a simple feeling which is our most reliable guide in speaking. It is certainly worth while to study the grammar, but why? Not because it greatly improves our speech but because it helps to take advantage of the wisdom which is hidden in our mode of speaking. The grammatical framework of our speech reveals the logical framework of our mode of integrating sensations into a whole. If our speech is well planned it can be so because our impulses are well organized. The language catches true insights in about the same way as poetry does. In speaking, we unwillingly profit from this wisdom. The words we speak are more than we realize. The language not only expresses our judgment but attributes meaning to it. There is a scale of interpretations behind every sentence, the more so the simpler they appear to be. These interpretations elaborate implications as well as limits, and are novel in their results. Little wonder that linguistic observations, especially in the case of definitions, are often able to support certain ways of interpretation, and that a study of the language in general yields philosophic insights of high import.

Some philosophers like Mauthner and Urban have advanced the theory that it is not possible to think without formulating the thoughts in words. This much may be conceded that the emancipation of our thinking is completed when it is put into words. It attains full objectivity in its expression of language. Moreover, the crutches of language are the more indispensable, the more complicated our thinking. There is, however, something in our thinking which precedes words. We are looking for words in order to express our thoughts as they are shaping up. We invent new words when our thoughts break through the framework of our vocabulary. Language is an instrument rather than the master of our thoughts, and often the instrument will inspire our thinking as a good piano inspires the invention of a composer. But it is not the piano which creates good music nor the language

which creates valid thoughts. Our thinking, as well as creating our thoughts, creates the symbols through which we may express them. The categories of our speaking are closely related to the categories of our thinking. How could it be but that the feeling which objectifies itself in the categories of our speech also bears on those categories of our thinking? Clearly, the order of our thinking is controlled by the organization of our feelings. Logical conclusiveness alone is never convincing if something in us warns us against acceptance. There are things which are clear from all angles but which we still do not understand. Much less are we willing to make a practical decision if everything speaks for it, but a feeling in us warns us not to do it. If that which performs all these miracles of guidance is rightly called subconsciousness, this subconsciousness is truly superior to consciousness. But why call it subconsciousness? We are not unconscious of it. We are aware of it in that we enjoy its activity although we do not objectify it. It is the subjective part of our mental activities. We are responsible for it. Does anybody ever say that he consults his subconscious when he ponders over the question as to whether a sentence is grammatically right or wrong? The fact is that some of our mental activities are contemplated and reflected on while others are not. But those which are not are neither inferior nor less efficient. It may be a practical suggestion to distinguish between awareness and consciousness in such a way as to say that we are aware of those activities which we feel and enjoy while we are conscious of those which we reflect on and focus as objects. If we adopt this usage of the terms the relation between awareness and consciousness does not equal that of chaos and organization or that of inferiority and superiority. We certainly gain a sort of superiority over those activities of which we become conscious, and we are enabled to regulate them and to reorganize them to some extent. But in doing so we are guided by intentions, the last organization of which is a function of our final ends and not an object of our consciousness, although we are perfectly aware of it. Our objective thinking is not independent, but is under control.

Life, in its non-objective status, is being enjoyed and gives

satisfaction. Our objective thinking likewise gives us satisfaction. The latter is obtained when our objective thinking justifies the satisfactions of life. For instance, the rules of a language do not make the language; they justify the feeling in us which creates and masters the language, and they do so in translating the organization of the feeling into the consistency of a system. The consistency confirms our feeling. It supports our feeling and sometimes regulates it in cases of deficiency. Our feelings are justified if they can be translated into an objective system of consistency. But the consistency of a system is meaningless unless it is paralleled by a genuine feeling. This close relation between living and thinking is a function of reason.

Reason, then, has a technical function. It balances our motivations and activities in such a way that the resulting actions and thoughts can be justified. Reason is the mental pole of satisfaction. Our actions and thoughts are satisfactory if they meet superindividual demands. While these demands are active in our decisions and in the methods of our thinking we become aware of them, that is, they become an integral part of our feeling. When this feeling becomes the object of our consciousness we analyze it and determine its factors. Those factors on which the satisfaction is essentially based can be integrated in a structure which organizes reason. Hence, the harmony between reason and the superindividual demands is not miraculous. Pure and practical reason are identical. Consciousness does not create values; it discovers them. It does not arrange them; it interprets them. The material which is brought into the light of consciousness and worked on by our intellect has its source in the totality of inner processes of which we are aware. Everything of which we are aware can be an object of our intellect. Moreover, the intellect may not only objectify that of which we are aware but may also use the objects as material for propositions. The objects may go through all sorts of logical operations, but whether the obtained results have any meaning remains under the control of activities of which we are not conscious. Life, in its non-objective status, lends material to the world of our objective think-

ing. But life is not intended to be material of our objective world. The objective world is destined to serve as a justification of life.

Intelligent human experience oscillates between two poles the one of which is the given, while the other is the enjoyment of the given. When we move towards the given we alienate it from us, pushing it away so as to have some distance between us and the given. The distance will enable us to look at the given in objective fashion and to regard it as an object detached from us. When, on the other hand, we move towards the enjoyment of the given we call the object back and assimilate it again. We weigh the meaning it has for us. We feel its subjective value and adjust our personal relation to it. Now the move towards the given is called cognition. The move towards the enjoyment of the given is called understanding. Cognition is a function of the analyzing intellect, understanding is a function of reason. Regarding the object the intellect asks: "What is it?" Reason asks: "What does it mean?" The former question is interesting, the latter one is vital. The answer to the former question describes the object in itself whereas the answer to the latter question designates the place the object is given in the world in which we live. This place justifies our attitude towards the object. The more attention is given to it, the more weight is attributed to its meaning. The weight is indicative of the specific value the object has. In every meaning there is an inherent quality of value and an act of evaluation is involved in all understanding. Since there is a close interrelation between the acts of understanding and cognition, the relationship between understanding and evaluating also bears on the act of cognition. These relations between evaluating, understanding, cognizing call for further exploration.

If the function of cognition were independent it would be possible to develop an inductive logic. It is not by mere chance that all attempts to establish an inductive logic have been futile. They will probably remain so in the future. The analyzing intellect comprehends the world in terms of objects, always taking for granted that the objects are meaningful parts of a whole. The question "What is it?" cannot be answered

in disregard of the question: "What is it not?" Every definition is a negation. For every object contrasts with the background of its environment. In the same way, every statement referring to an object also refers to the environment of the object. Nothing can ever be conceived and analyzed as an object without the presupposition that it is a meaningful part of a whole. For this reason, we can never finish the analysis of our ultimate ends. They are the final whole to which we are able to refer in our intellectual functions. That which is final cannot be finite. It follows that the part can be discovered from the whole, but the whole cannot be understood from the part. Analysis never leads from the part to the whole. For this transition, intuition is needed.

Suppose a student is puzzled by certain details which seem to belong together and to make sense. How they actually fit together he does not yet know, nor will any inductive logic show him. Suddenly he has a theory at hand from which to deduce the details. How did he find the theory? He could not tell—certainly not by a cogent chain of inferences. What happened was that by a sudden flash of insight he caught the other end of the line of inferences. At this moment, he started to "understand" the details, in terms of the whole which constitutes them. His mind has made a move in the direction which is the reverse of cognition.

There is, in every act of understanding, an element of suddenness which is called intuition. Intuitive sight enables us to take into account a plurality of factors without the need of analyzing them, and to anticipate the possible results of any analysis. Intuition gives the scientist a lead in his effort to understand the relation of certain details and to comprehend them as determined by a whole. Intuition enables the artist or the inventor to anticipate the work which he is going to compose, and to control every step he takes forward by means of a retrospective view from the point of his anticipated goal. There is even an element of intuition in every apprehension of a given situation, whether it lead to instinctive action or develop into objective thinking or just result in a general feeling. No matter if it is a new situation we grasp or a new

theory or a new idea, the intuitional character of every act of understanding is obvious. Of course, it makes a difference whether a man—or even an animal, for that matter—intuitively feels the danger of a situation, or whether the ingenuity of a scientist discovers how the phenomena of our world are organized, or whether an inspired artist has constructive ideas. The various connotations of the term “intuition” point to the fact that the term “understanding” also has various connotations. It makes a difference whether the object of our understanding is a situation or a person or a theory or a poem and then each of these objects may be understood in different ways. Something of the range and complexity of understanding is seen if we examine the variety of phases of it that lie between the simplest intuitive response to a situation and the highly complicated processes of evaluation.

1. We understand the impact of situations, often before we analyze them. Even animals, which are not capable of objective thinking, do this. Instinctive behavior is released by an intuitional apperception of the situation. Often our response to the intuition is not action but simply a feeling. We feel happy or unhappy, encouraged or frustrated, we feel bewilderment or embarrassment or excitement. Such feelings constitute a way of understanding the situation in which we are.

2. Our intuitive grasp of the situation may lead to some further thinking about it. In this case, we convert our motives into reasons. We try to express in words why we feel the way we do and why we are inclined to react the way we do. We not only exhaust the contents of our intuition but tentatively go further and try to discover new angles from which to pass judgment upon the situation. Our thinking becomes an incentive for new intuitions and new ways of reaction. We gain detached views of understanding by which we are able to control our actions and our feelings.

3. There is also a way of detaching our feelings from personal interests in the situation which does not necessarily imply any objective thinking. We understand a landscape through breathing our souls into it and gaining a cosmical

contact with it. We forget ourselves in a sympathetic understanding of the world.

4. We understand other persons if we are aware of feeling the same way they do. The communication is not necessarily established by words. The other persons may not even be present. It is only necessary to feel that they are impressed by the same events by which we are impressed. We take for granted that they will respond in the same way we do and we expect them to react accordingly.

5. Events affecting other persons may not have an immediate effect on us. We still understand their ways of responding because we are able to experience the impact in our imagination.

6. We even understand other persons when they differ from us. Different reaction means different evaluation. As individuals, we may have only one genuine way of reacting to a given set of circumstances. But while we do so we consider other ways as possible. Otherwise we could not speak of evaluation, nor could we be held responsible for the way we make decisions. Only in our imagination are we able to accompany our fellow men in their feelings and decisions. They live the lives of our temptations and dreams. For in a sense it may be said that every way of leading one's life that is genuinely possible has its lure as it is displayed before our eyes. Everybody can live only one life, but in his understanding of the lives of others he enjoys the opportunities otherwise missed.

7. It makes a difference whether we have simply understanding contacts with other persons or are able to explain in words their characters and ways of behavior. In objective description, motives turn into causes which determine a person and allow predictions as to his future development.

8. Objective understanding in general means substituting symbols for facts. Every word is a symbol, standing for something which is not mere sound. Other symbols are used in mathematics and in logic. The evasive features of life are caught in forms which stay constant and make it possible to understand life in terms of permanent symbols.

9. The function of symbols is to lay bare the relations be-

tween objects. A set of symbols makes it possible to express the relations between objects in a system of propositions and theories. Understanding means to see in a context.

10. Art and history are never exhausted by an objective analysis but allow for ever-increasing depths of interpretation. A work of art or a historic event can be understood in itself. It can also be understood in relation to its author or to his contemporaries. The relations which determine a work of art or a historic event are of very complex nature. So is the act in which they are understood.

11. Nothing is supposed to be more difficult than to understand one's self. Man tries to understand himself by borrowing the eyes of his fellow men. If he is able to find out what he looks like in the eyes of others and how he affects others, he attains an objective picture of himself.

12. To understand one's self may mean more than just getting an objective picture of one's own individuality. It may mean that a man measures whatever he represents against what he feels that he should represent. In this case he tries to understand not only himself but his "better self."

Each of these twelve cases has its distinct features. It is certainly possible to split some of the cases in two or to add more cases. The enumeration displays a variety of difficulties which should be reckoned with in a study of the phenomenon of understanding. It is, however, not expedient to organize such a study according to single cases or according to objects of understanding. We shall have better guidance if we consider the distance of the object rather than its nature. Following this lead we shall distinguish between instinctive understanding, subjective understanding, objective understanding, and creative understanding. This scale sounds like an ascent from the most primitive to the most complex stage, yet it is not meant that way. A human mind draws strength from all four sources.

1. In the stage of instinctive understanding the distance from the object is zero. Understanding in this sense means having the situation so well under control as to react immediately to every change in a suitable way. Neither calculation nor

reflection interferes with the immediate contact between a living being and its environment in such a circuit of mutual influence. Since there is no time for consideration, the problems which arise from changes in the situation are solved immediately. Handling the situation and understanding it are two aspects of the same process. A living being shows through its reaction that it understands a given event, and the manner of its understanding. Instincts are largely responsible for instinctive understanding. But training will also be responsible for what might more properly be called a quasi-instinctive understanding. Watch a person on a windy day and see how he bends his head in order to prevent his hat from flying off. He needs practically no time to follow every change in the direction of the wind. Watch a carpenter and see how he applies his tools. His fingertips "know" what to do. He "understands" his material while he works at it. It is as if his very hands understood the material without waiting for advice from the brain.

The object of such instinctive or quasi-instinctive understanding is always a situation grasped as a whole which has not disintegrated into its parts. The traits of the situation have relevancy to a permanent readiness on the part of the understanding person to go into action. In fact, the person is acting all the time in that he has the situation in hand, although, for the moment, he may seem to be resting. A mother handles her baby that way. Seeing her baby, seeing how he is affected by the factors of the present situation, seeing what she can do about it is all one act. Of course, this is not the only way a mother understands her baby but it certainly is the original way. Yet one should not call it the primitive way, for there is nothing primitive about it. It is a highly complicated phenomenon, and it is most difficult to understand how instinctive understanding is ever possible. Primitivity does not characterize it, simplicity does. It is simple because it is the response to a simple situation. It is amazing that a human mind is able to be simple and to grasp situations in their simplicity. The fact is that human beings are simpler than they know they are. The simplicity is hidden as soon as

they start to reflect on their ways of handling situations, but restored as soon as they are acting again. There is, for instance, a great deal of instinctive understanding in all teamwork.

2. In the stage of subjective understanding, some distance from the object is reached in so far as the object has ceased to be an allurements for immediate action. During the process of subjective understanding, decisions are shelved. Subjective understanding is neither acting nor thinking; it is a matter of feeling. The feelings involved have intentional character in the sense in which Husserl uses this term: they are directed towards that which, if contemplated, appears as a world of objects. The situation as it is understood subjectively has disintegrated into a variety of moments which stimulate a variety of motives. Action is impossible until the motives are evaluated and converted into motivation. It is, however, possible that the motives are integrated into one dominant impression which is detached from any personal interest and does not call for action. If it is a very intensive impression we may speak of it as an artistic view just as we speak of a scientific view when the objective attitude is intensified. The integration of the subjective world in an artistic view is due to an act of intuition. In instinctive understanding, intuition is nothing but the uninterrupted contact with the exigencies of life. In subjective understanding, intuition has the function of recovering the simplicity of the world. Every intuitive impression is so simple that the roundabout way of words never squarely hits the point. Art comes nearest to expressing such intuitions adequately. If our own intuition is lacking, the intuition of an artist may help us to understand a scene or a human face in its simplicity.

As long as our feelings are disintegrated in a series of conflicting motives, we are aware of our ego which, in this stage, is conceived as the pivotal point of all dissatisfactions. As we succeed in balancing our moods and in integrating our impressions the ego is dwarfed to an agent of submissive functions. The cosmical aspect of the world prevails over the ego-centrality. We lose ourselves in the contemplation of a beautiful landscape or in the enjoyment of a great poem.

We know we are identical with those with whom we feel united in solidarity. We identify ourselves with those whom we try to understand although they are definitely different from us. Whatever, in the behavior of others, is incongruous with our ways of handling situations responsibly, can still be experienced and understood in the irresponsible flux of our imagination. Subjective understanding, in its richest developments, is sharing. The artist specially feels that way. He forgets himself and belongs to his fellow men.

Frustration features the birth hour of our subjective world. Contrasts create that tension in which subjective values are discovered. There is, however, a persistent drift towards harmony noticeable in this turmoil. Turbulent emotions settle down in moods which have a definite structure. Much as we are upset at times, the final status of our subjective world is a status of order. Isn't the weather variable? But there is something in its variations which has a definite shape. We call it climate, and we understand the weather if we know how it is related to that climate. The moods of a person are as variable as the weather. But there is an organizing ferment in them which gives them shape. This is why a person develops definite attitudes and why we are able to understand him in terms of these attitudes. All temporary changes in a person refer to a permanent organization of his feelings. The stability of the subjective world is not simply a trick of our objective thinking; it is a law, rooted in personality and governing every phase of the developing human mind. Our judgment upon other persons and our relations to them would be as fugitive as the impressions which they exert on us, if we were unable to catch intuitive glimpses of that stability which establishes the permanency of a person.

3. In objective understanding, the distance from the object is even greater than in subjective understanding. The object is stripped of its subjective values and seen in its thing-character. Not only decisions are shelved but personal feelings as well. Nor is it possible for us to bridge the gap and identify ourselves, actually or tentatively, with the object without

losing our objectivity. We assimilate the object to ourselves rather than ourselves to the object. When we make the object an integral part of our evaluations our distance from the object drops out. But at this point, the object is converted into a motive and is no longer an object. Strictly speaking, we never enjoy an object immediately. What we enjoy is its meaning. We do not feel responsible for the existence of objects around us but for the meaning they have for us. Objective understanding establishes a relation between us and the meaning of objects.

Our subjective world and our objective world exert mutual control over each other. We enjoy a work of art more when we know more about it. The progress of our objective thinking enriches and alters our impressions. We recognize subjective impressions as false and adjust them as we sharpen our objective views. Our objective thinking could not check on our subjective world if it had not ways of proceeding which are genuine and independent of the subjective world. Such ways of proceeding are called proofs. We prove the results of our objective thinking and check the strength of our impressions in accordance to these proofs. We do not, however, believe in everything which has been proved just because it has been proved. There are very convincing proofs for the assertion that three equals four. Every step of these proofs seems to be inevitable—many people, at least, are unable to find out what is wrong about the proofs—nevertheless they do not convince anyone. We insist that three never equals four and that the proofs must be deceptive because they would invalidate convictions which we feel are valid. In such a case we check our objective thinking against our subjective feeling, and the adjustments are on the side of the objective thinking. The magic force of proofs fades away as soon as they conflict with certain basic convictions.

Objective thinking feeds the body of our knowledge. Proofs are its texture, but its bones are convictions which are beyond proof. The shape of our knowledge is determined by intuitive insights. The flash of intuition throws evidence on certain propositions which become the fundamentals and the starting

points of our thinking. The intuition which consolidates the results of our thinking has doubtless the character of an emotion. It is a move of the subjective world, not just joyful acclamation but rather a creative act. Evident propositions become objects of our thinking when we find the words to formulate them, but even before we are aware of them as propositions they direct our thinking. We apply the principle of contradiction before we know about it. How is it that the subjective world, unstable as it is, provides insights which stabilize the system of our knowledge?

There is an element of stability in our subjective world which is the chain of our responsible evaluations. Convictions of "so and not otherwise" safeguard our genuine decisions before they safeguard our opinions. The feeling of being right in our decisions, if they carry the weight of our full responsibility, arouses the expectation of finding them confirmed by any sort of argumentation which we are ready to acknowledge. The straight line is accepted as the shortest connection between two points because we often choose the straight way in order to reach a distant point quickly. We do not believe that four equals three; we would not give four dollars for three. The problems we solve in our thinking are related to situations we solve in our acting. The world of our thoughts is a world in which our evaluations are repeated. If usefulness were the only guidance of our actions, usefulness would be the criterion of our thoughts. This is not so. The dignity of our responsible actions is far above the value of usefulness. In fact, it is the dignity of our final ends. The dignity of our thoughts is the dignity of the service they give to our final ends. As far as our final ends overlap the final ends of our fellow men, our convictions are the common ground on which we meet everybody. As far as our final ends determine us as individualities of different kinds our convictions are personal.

There is no conviction more deeply rooted in us than that situations are solvable and that there must always remain a possibility to restore the unit of ourselves and our environment. We are convinced that our final ends can be realized

in the world in which we live and that our responsibility does not drive us out of the world. This conviction is felt as that drift towards a final harmony in which the uproar of our emotions tends to be quieted. As we believe in the harmony of our subjective feeling, we also believe in the consistency of our objective thinking. The one is the guiding principle in our subjective world, the other in our objective world. If it is true that our final ends direct our responsibility towards the final stage of a model world it must be possible to combine statements about the world in a system and to exclude as wrong whatever disturbs the consistency of the system. The belief that the body of our knowledge forms a system of definite structure is derived from the conviction that the final ends connect us with our world in a harmonized relation. But believing in this consistency we discover it as a principle which enables us to check on the validity of propositions without always referring to the subjective sources of our wisdom. Our objective thinking is led not only by the intuition which associates two items of knowledge in a systematic relation but also by principles of reasoning. Some propositions are true because they are evident. Others are true because they fit evident propositions. Some are self-explanatory; others can be explained by means of self-explanatory propositions.

To understand the world objectively is to establish a system of meanings the grouping of which, in its last effect, justifies our final ends. The meaning of an object is the support which it gives to our final ends. This support is limited. Solidarity with other human beings involves unlimited support of our final ends. As far as others are in solidarity with us, they are not objects of our thinking but identical with us. As far as they are not in solidarity they are bound to become objects of our thinking. The principle of individuation has its origin in this limitation. Objects are not interchangeable. They do not merge with us into a mystic union, certainly not as long as they remain objects. They keep their labels, that is, their meanings. We do not identify ourselves with them without reservation. We do it only symbolically and only in degrees.

We do it only symbolically: The meaning we attribute to

an object is always expressed by a symbol. Through symbols it is possible to be in communication with others about objects. Our own objective thinking clarifies in a dialogue which we have with ourselves, again using symbols. Our contacts with objects are fugitive unless consolidated by means of symbols. Only through them can objects be organized in a system. The meaning of an object necessarily refers to a system, and as this meaning is always embodied in a symbol we have no other way of assimilating the world of objects and facts than by converting them into symbols. The system in which every symbol has its definite place reveals the consistency we develop in our contacts with objects. The steadiness of these contacts, as expressed in the system, justifies our final ends. We shape our relations to the world in accordance with our final ends and come to know and observe the beauty of our final ends in the system of meanings or symbols which is the key to the appearance of the world.

In this system of meanings every single object or fact has a degree of importance, and its significance is judged by this degree. We cannot identify ourselves with objects without making the reservation that we do it to such and such a degree. This also holds for other persons as far as we do not live in solidarity with them. The principle of individuation is between us and the object. No object is ever entirely conformable to our final ends. This is why our individuality, being a possible object of research, is never quite conformable to our personality. Many objects will seem irrelevant, others repugnant, in regard to our final ends. The world of facts is not the world of our wishes, for objective thinking is not wishful thinking. But cognition is mental activity, and we can never be active without demonstrating the laws of our individuality. Even in regard to our objective world we are subjective in as far as we put different shades of emphasis on objects and facts. Some objects appear to be outstanding or at least important, others negligible. We may not even notice them although other people, to whom they seem less trivial, do. Our attention towards objects is individual. The given results from a selection. We are responsible for what we see just as we are

responsible for what we think and for what we dream. It is our responsibility to see the world in terms of objects, each of which has a degree of relevancy to our last ends. It is a matter of how to read the world.

The system of our knowledge reflects the degrees of importance which are attributed to the single objects. The structure of the system at which we are working designates the items which claim our paramount interest. The system itself is a whole, or rather an organization of many wholes, which are the background of our research while we try to get down to the details. We presuppose that every object which we try to understand has a function in regard to such a whole. It is this functional relation which constitutes the meaning of the object and stimulates our endeavor to understand it.

Suppose we meet a friend in the street who says: "I am so sorry that I did not answer your last letter. I have been out of town." Let us also suppose that this is a lie and that we know it is a lie. There are, in this situation, at least three factors which represent themselves as objects of our understanding. We have to understand the meaning of the words which are spoken by our friend. We have to understand why he feels he should apologize. We have to understand why, in doing so, he takes refuge in a lie. We understand the words if we know the language in which they are spoken. The apology is understandable if we know the conventions which rule the intercourse between individuals. Finally, we can even understand the lie if we know the individuality of our friend. The language, the convention, and the individuality are the three wholes to which we refer the three objects of our understanding in order to grasp their meaning. While we do so the wholes themselves do not necessarily become objects. We are not pondering over the question of what language means to mankind while we are understanding the words of our friend, nor are we pondering over the question of what conventions are when we understand the reason for his apologies. We are not analyzing the individuality of our friend when we understand why he uses a lie. In the process of understanding, an object is referred to a whole which is not an object. In understanding,

we enjoy the relation between an object from which we are detached and a whole from which, at this time, we are not detached. Another time, we may detach ourselves from the whole and convert it into a detached object. We may analyze languages, conventions, individualities. In this case, we have to project them against the background of more comprehensive wholes.

Language is possible because it is assumed that several persons may mean the same thing. Conventions are acceptable because it is deemed credible that several persons may agree upon the same thing. Individualities can be understood because we take for granted that there is that in every person which we have in common with him. Understanding, in its last analysis, means meeting on the same ground. There must always be a common ground, and there must always be one whom we meet and with whom we can talk it over. Understanding means being in communication. It makes us transcend the principle of individuation, not in regard to the object, but in regard to the mental act of comprehending the object. In fact, understanding leads us back to the sphere in which the I and the Thou are still one although the I and the It are two different things. This sphere is the whole which is never converted into an object, the ground on which we stand and from which we cannot detach ourselves. We call it the rationality of the world. We believe in it because we feel that we are able to argue with other persons about the meaning of the world, and to explain it in terms which are in harmony with our final ends. If the world were irrational, understanding would not be possible. If there were not those who understand us, the world would not be rational. Rationality involves communication. Whenever we understand something there is present an imaginary authority with whom we discuss the issues and who reassures us that we are on the right track.

If the object of our understanding is a set of symbols composed by another person who wanted to express himself, he would be the best authority to interpret his own expression or to tell us whether our own interpretation is right. A person who says something must know best what he means by his

words. A painter who paints a landscape must know best what he wants to express. It may be objected that objective impressions stand for themselves and that we may contemplate and interpret a painting without knowing the painter and without ever referring to his individuality. We may even find more adequate words to clarify the meaning of a painting than the painter, being a man of the brush rather than a man of the tongue, would be able to find. Still, our dialogue with the painting is a dialogue with the painter. We may have the feeling that we are finding ourselves rather than the painter in the painting, but the virtual assumption is that we share our interpretation with the painter. We are in communication with him in that sphere in which we are identical with him. Differences between his and our individuality are forgotten as long as we identify ourselves with the painting. The differences will be remembered as soon as we start to criticize the painting and to gain distance from it. But this is another process. Understanding the painting and the painter is the same thing. We cannot understand the painting and, in this very act, misunderstand the painter. He gives the guarantee that the landscape has a meaning, and that our effort to understand it is legitimate. Again, if we try to understand a theory, he who advanced it first and those who followed him before us are our guarantee that the theory makes sense and is worth studying. We feel encouraged to cope with the difficulties of the theory because we assume that those who dealt with it before must have known what they were talking about, and because we want to be in communication with them. If we try to understand the mechanism of a machine we get into communication with him who constructed the machine. If we try to understand a poem we have a dialogue with the poet.

If nobody's brain were behind a set of symbols, searching for the sense they make would be foolish or, at best, a mere play of our imagination. A friend who is a physician shows us something which looks like an X-ray picture or like a photo of something which has been magnified under the microscope. We see shades of grey, stripes, and curves and try to make something out of it. The assumption is that our friend wants

to show us something which is interesting and which he will explain after we make our guess. But he may well be fooling us. As soon as we find this out our expectation collapses, our interest in the object dwindles, it ceases to be an object worth analyzing and describing. Nothing is more ridiculous than to expect sense where there is none. Suppose we put single letters in a box, shake them up, pull them out at random and put them together as they come. Or suppose we contrive a machine which does this, printing one book after the other. There would of course be no sense in these books. But after billions of attempts there might, by a whimsical chance, appear a text which runs like a poem. Is it a poem? Does it express lyrical feeling? It is a sort of homunculus among poetry. It has no soul. We cannot enjoy it, or if we do, we are well aware that the "poem" is like a mirror in which we discover our own soul. We have to adopt the changeling and breathe a soul into it. There are several ways of interpreting a poem, some of which come nearer to the intentions of the author than others. But in the case of our homunculus, our own interpretation is final. We cannot check it against the intention of the poet because there is none. The responsibility for the sense the poem makes is all ours. We do not understand the poem; we really make it. Until we breathe a soul into it, it is only a "poem," not a poem. Mental disease sometimes does not prevent a man from producing poems or other works of art. In acknowledging them we are reluctant and not quite sure how far we may go without fooling ourselves. It is as if we look into the beautiful eyes of an octopus without knowing how much of a brain we should expect behind them.

4. Objective understanding presupposes a creative act in which the meaning of the object with reference to a whole is firmly established. If the author of the creative act is another person we feel that we are able to be in communication with him. But there are objects of understanding for which no other person can be made responsible. Nature is such an object. We try to understand how the organ of an animal is functioning. We try to understand why blue and yellow blend to green, or why the orbit of the earth is elliptical. We think that we

understand such facts if we can explain them, and that we can explain them if we can express them in rational principles. We believe that Nature is governed by principles which correspond to the rationality of our human thinking and can be discovered in the process of human thinking. We seem to assume that Nature has been created and arranged by a brain comparable to human brains, and we feel reassured in this belief because science has been very successful in the discovery of rational principles. If some features of the universe were irrational, our understanding would come to an end. The irrational is that which cannot be understood. But every problem which seems to lie beyond the border of rationality leaves us unsatisfied. We never give up trying to find out the rationality of that which, at first, seemed inexplicable. In a religious approach we are ready to admit that there are more things in Heaven and Earth than are dreamt of in anybody's philosophy. In our scientific approach we are never ready to acknowledge that our understanding reaches insurmountable borders. The rationality of the universe is, however, a postulate rather than a fact. Problems have to be put in a way which makes them solvable; otherwise they are, or become, meaningless. Objects have to be defined in a way which makes them understandable; otherwise they have no meaning. If an organ has no function it can no longer be regarded as an organ. An object is not legitimate unless it confirms the rationality of the world. Our talk about an object is meaningless unless it can be understood by others. We have to gain a view of the world which makes it appear as the product of a plan. We have to discover the world in its actuality and potentiality as a scheme which has been organized and allows for further organization. The scientist, in fact, creates the world which he pretends to understand.

Understanding and creating are two functions of the human mind which, at the first glance, do not seem to have much in common. A creative act produces new objects while the act of understanding deals with objects which are already in existence. The term creative understanding seems to contradict itself. Nevertheless, the scientist who advances a new theory has

the feeling that he understands laws of nature which have always been valid. The poet as he writes a poem feels that his art is a way of understanding himself. In contriving a new machine, the inventor is convinced that he is understanding possibilities which have been immanent in the raw material. The leader of a social movement feels that he is understanding a call from those whom he serves, while to the religious leader it seems that his call comes from the Beyond. There must be an element of understanding in every act of creation, otherwise there would be no hope that the created work could be understood by others. A work which could not be understood by others would have no meaning; indeed, if it means nothing it cannot be called a work. If it means something to us it is possible that it will be interpreted by others. We are not entirely independent while we create a work. We have some guidance; we understand and follow a design which is not ours although it is our responsibility to follow it. We also expect that we shall be understood by others. If we did not we would discontinue our work. The energies of the creative act are stimulated by the expectation that our work will have significance for us and for others. This will be the case if we call into existence possibilities which have had the status of potential existence before. It is the rationality of the world which comprises the potential world as well as the actual world. The rationality of the world is the framework of our creative acts and provides guidance whenever we venture upon that which is novel. When we are in a creative mood we are following hunches which gradually develop into a real understanding of what we are doing. Understanding is not prior to creating, but both interlock in a way which is covered by the term "creative understanding."

In objective understanding, the object is distant. In creative understanding, it is not visible at all. In fact, it is not in existence or, at best, has the status of being called into existence. It gains shape in our imagination before it enters the world of actuality. However, as soon as it is real its place in the system of our knowledge is determined. This place decides the degree of interest we take and the effort we make in creating

the new object. Strictly speaking, we do not create objects. If we did we could make something out of nothing. The truth is that we live in the works we create. In order to make life more comfortable and more satisfactory we adjust our environment to our idea of a model world as we understand it. This idea is inspired by our final ends. The more responsibility we feel for that which we create the more are we under the pressure of inspirations which emanate from our final ends. The intuition which stimulates our creative acts is the anticipation of a world in which our final ends are realized. Whenever we try to understand our final ends, the result is a creative act. No other results can be expected since our final ends cannot be converted into objects without losing their finality. Instinctive understanding is action. Creative understanding is the awareness of a demand to take action. Yet instinctive understanding keeps within the limits of periodicity. Creative understanding enjoys life in its novelty.

In creative moments when new problems become apparent and new methods of solving them offer themselves we are possessed by an intuition which blots out the principle of individuation and puts us in a position of fathering rather than contemplating our world. The objects, no longer seen as objects in this stage, come near us and speak to us as if even non-living things could enter into the I-Thou relation to us. We take on the responsibility of a father, or of a creator or organizer, and in doing so we are disciplined by a spirit which is not exclusively a condition of our own mind. We feel as participants in a plan by means of which our final ends organize, for us and for others, the relations of our world in new patterns of possible reactions or interpretations. It is this process which guarantees the rationality of our world, and the participants in this plan are the ones with whom we virtually communicate in order to know that the new pattern we create will be acceptable as conforming to our final ends.

This is probably the nearest philosophical thought can get to confirming religious beliefs. There is a wisdom inherent in the organization of the world which makes it possible for us to be creative and to produce—more world. Indeed, our world

is bigger than the world of dogs and cats and we have produced this surplus of world under the guidance of our final ends. Are they identical with those of God? It might be arrogant to make this assumption. As a matter of fact, our final ends are in a stage of development, possibly along divergent lines. We may hold that these seeming differentiations are like variations on a theme which, in its simplicity, expresses the nature of God, the simplest of all beings. But this is a poetical view. Scientific and philosophical thought can destroy anthropomorphic images of God—and this is a service of great importance—but it cannot determine the true nature of God. Science is built on the faith by which we live in assuming that statements can be meaningful and understandable and true. This faith inspires religious convictions but does not ascertain them. The content of the faith which justifies whatever is significant in our lives can itself not be justified nor can it have a meaning or be an object. It is felt in creative moments but not contemplated in periods of meditation. It does not comply with the limitations which are inherent in every idea and in everything which is known. In other words, we can create God in ourselves but we cannot know him.

That much, however, may be added regarding our relations to our fellow beings:

There is more wisdom in our final ends than there is in us.

We share our final ends, to some extent, with other beings and some of our final ends certainly with all beings.

If we are self-respecting beings we should also respect in others the source of wisdom which we share with them.

This argument, arrived at in rigorous philosophical argumentation, is close to the Friends' belief in that of God which is in every man.

## QUESTIONS AND QUESTIONINGS<sup>20</sup>

**A**N inquiry into the nature of understanding is likely to bear on the theory of knowledge, for understanding is the function which organizes the body of our knowledge. We cannot passively register facts without actively interpreting them. There is no noema without noesis. The static aspect of the world as pictured in our knowledge is brought about by the dynamic forces of mental activities which are a feature of life. It is one of the main theses of this book that the body of our knowledge is not only an inventory of our world, but at the same time an expression of life.

We acquire objective knowledge by generalizing our experience. Experience is "knowledge," whereas generalized experience becomes knowledge. Of course, all generalizations are fallacious and the first fallacy to which we succumb is the belief that our world as we experience it is "the" world. We take reality not for something which affects us and is affected by us but we believe that reality, whatever its relations to us, is something in itself. We not only believe that our knowledge tends towards definite propositions about our experience but also that our knowledge tends towards propositions about the world which are absolutely correct. The world, however, is our experience. Our subjective world is comprised of the multitude of factors of which we are or may be aware. Our objective world is the product of a multitude of views which are shaped by mental activities. Wherever there is a world there is, of necessity, our mind looking at it.

The delusion of "a" world which is supposed to exist beyond any relation to us has engendered another delusion: the belief that it may be possible to have a "complete" knowledge of this world. Actually, knowledge does not exhaust the world; it widens the world. The generalization of our experience is an experience itself. The acquisition of knowledge adds to our "knowledge." For instance, when we examine a work of art

<sup>20</sup> With slight deviations, this chapter was first published in *Philosophy and Phenomenological Research*, Vol. IV, No. 1, under the title "Phenomenology of Questions."

and learn about its style and analyze its features in objective fashion, our love for this work of art will probably deepen. The world which grows with our knowledge is commonly called culture. It is the integration of all effects which knowledge has made upon us. It lives in us even after the known facts have slipped our mind. Knowledge is creative. Through it new situations arise and new avenues open. It enriches our sensitivity, changing the world towards which it is directed, and the person who acquires it.

As a creative expression of life, our knowledge is controlled by our final ends. We have found the ultimate ends effective whenever we seem to be affected by something which, as yet, is non-existent. In our evaluations we are feeling after something which we have called model situations or values. In our striving for knowledge we are likewise feeling after something. There is an element of unrest in our endeavor to obtain knowledge. We make a considerable effort towards this end because we feel the Ought in it. We are even able to evaluate the importance of knowing a certain fact before we actually know it. Our attention is guided by a feeling which is called interest. Indeed, in the process of acquiring knowledge, interests have the same function as have values in our evaluations: they are the stimulus of our activities. Our interest tells us what we ought to know. It makes us resent the lack of knowledge. If this resentment is translated into words the result is questions. Indeed, questions are the vehicles of our thinking. If we want to find out how, in the process of acquiring knowledge, our mental activities are directed, there is no better way than that of inquiring into the nature of questions.

What sorts of questions are there?

To begin with, there would seem to be rhetorical questions. These, however, are not really questions but a way of disguising emphasis or politeness, and may properly be left to the grammarians.

Then there are silly questions. They are so called because they are either out of place or because the answer is too obvious or because there can be no answer to them at all.

If a question is out of place, it is raised at an inopportune

time, but it is not absurd. It may be relevant if raised at another time or place.

If the answer to a question is obvious the person who asks it is to blame. The question itself makes sense. It is all right if asked by a small child who would not find the answer easily or if asked by a philosopher who does not always take for granted what other people believe to be settled.

Strictly speaking, questions are absurd only if it is possible to show that there is no answer to them. If evidence is given that this is so on principle, and not by accident, the question will be abandoned. For any question becomes ridiculous if stripped of the expectation of an answer. The expectation of an answer is inherent in every serious question.

There are four kinds of serious questions. How far away is the sun? Do you believe in immortality? Do you like this picture? What shall I do next? Questions are either a matter of knowledge, or of belief, or of taste, or of action. If related to our knowledge, they are settled by solutions. If related to our belief, they are settled by convictions. If related to our taste, they are settled by choice. If related to our actions, they are settled by decisions. In the course of this inquiry, we are mainly interested in those questions related to our knowledge.

As we have already seen, our knowledge as a whole is by no means a conglomeration of unrelated bits of knowledge; it forms a body with a certain structure. This holds good no matter whether we think of the knowledge of an individual or of a group of people with homogeneous background (such as may be given in an encyclopaedia) or of any branch of Science. The body of our knowledge is always incomplete. The available parts are our actual knowledge, while the parts missing are our potential knowledge. Our potential knowledge is pre-conditioned by our actual knowledge and will fit its structure if and when materialized, because it is determined by implications constituted by our actual knowledge. This actual knowledge is limited and its implications are of limited range. How could it be otherwise but that our potential knowledge is also limited? The body of our knowledge as comprising both actual and potential knowledge is a closed system. Its capacity

is the capacity of our understanding, for our understanding does not overstep the implications of what we already know.

The structure of our knowledge enables us to see the gaps in our actual knowledge. We expect that we can fill them, and we try to do so by using questions as our tools. Our questions are limited by the capacity of our knowledge. They move within the body of this system and do not carry beyond. There is no better way to measure the scope of our knowledge than by the momentum of our questions. They are highly indicative of the body of our knowledge.

While we are busy filling the gaps, we can never do away with them; the more we fill, the more become visible. The number of gaps is increasing—so is the number of questions to take care of them. But the whole drama takes place within the boundaries of the established system.

This does not mean that the body of our knowledge does not grow in capacity and scope. It does indeed. How this growth is brought about we shall see later; but we had better state at this point that it is not done by means of questions. On the contrary, questions fit rather than challenge the pattern as set by the structure which organizes the body of our knowledge at any given moment.

Let us forget for a while that the body of our knowledge is something growing, developing. Let us take it for what it is at any given moment: a well established, well balanced system. This system has its boundary line. We are, however, not aware of it as a boundary line. The line has the peculiarity of being visible only from without, not from within. From within, it appears to be the *ultima ratio* of everything. Things moved towards this line take on the aspect of something definite, unquestionable, absolute, evident. It is at this line that our questions come to an end and the whole system becomes balanced. Our questions are dictated by the border of our knowledge.

Every question is based on presuppositions which result from former questions<sup>21</sup> and which can, to the best of our knowl-

<sup>21</sup> "Every question is an answer to some question and every answer is itself a question." Paul Weiss, *Reality* (Princeton, 1938), p. 92.

edge, be taken for granted. The question draws its meaning, the answer draws its strength from them. The answer will be found, if anywhere, within the range of those presuppositions. If it turns out to be impossible to find the answer there, the question will be stripped of the expectation of an answer. It loses its property of being a meaningful question. Strictly speaking, it is not a question any more. But if a question is meaningful and therefore a real question, there will be an answer to it. There is an answer to every question.<sup>22</sup>

Let us examine the following set of questions:

1. Is cancer curable?
2. Is stupidity curable?
3. Is the stupidity of apes curable?
4. Is the stupidity of centipedes curable?

It may seem that all four questions are meaningful. True enough, it is a strange idea that we can convert a centipede into a creature of high intelligence by giving it some injections. But it seems to make sense. Somebody with a strong imagination may like to write a novel about it.

Actually, only the first question is a good question. The modern physician who raises it knows what he is talking about. There are people who think that disease comes from sinning and may be cured by repentance and prayer. Others believe that evil spirits have taken possession of the sick and should be expelled by exorcism. Still others think that diseases come from mental disorder and may be cured by hypnosis. Be this

<sup>22</sup> "Es gehoert zum Sinn, und insofern zu der 'Moeglichkeit' der Fragen, die der Forscher stellt, dass sie grundsaeztlich beantwortbar seien." Richard Hoenigswald, *Die Skepsis in Philosophie und Wissenschaft* (Goettingen, 1914), p. 63.

"If a question can be put at all, then it *can* also be answered." Ludwig Wittgenstein, *Tractatus Logico-Philosophicus* (New York, 1922), p. 187.

"By a significant question I mean a question to which some proposition is *the true answer*." Felix Cohen, "What is a question?" *The Monist*, 1929, p. 359.

"A question is meaningful if it is answerable: unmeaningful if it is unanswerable." Ledger Wood, *The Analysis of Knowledge* (Princeton, 1941), p. 254.

as it may, a modern physician usually thinks of disease in terms of physical disorders which can be influenced and cured by physical means, for instance by drugs or rays or methods of diet. He believes in the results of his medical science and in the system of presuppositions which it involves. The implications of this system arouse the expectation that cancer, which is known to be a disease, can be cured by physical means. There is a great variety of such means. It may take a long time to select the medicine which actually helps. But once the expectation of a result is well established the question is full of meaning and importance. It is worth examining and will not be abandoned until the problem is solved.

The second question is not so good, at least not if we take the term "curable" in the same sense. The presupposition of this question is that stupidity is a disease, some kind of physical disorder. This should not be taken for granted. Rather it should be asked whether this is the case. If stupidity turns out to be not a matter of physical disorder how can we hope to influence it by physical means?

The third question is even worse. We should ask first whether apes are stupid. If they are, the next question will be whether stupidity is a disease. If it is we may ask whether this disease is curable. But we cannot take the third step before the first and second step have been done.

In the fourth case, we should not even dare to ask whether centipedes are stupid. The only proper question is how they react. He who writes a novel about them will write a novel about human beings who have taken on the shape of centipedes. It would not be a novel about centipedes which have taken on human intelligence. The problem is void of sense.

The system of our medical knowledge is of limited range. It covers only the first of our four questions. The others are without protection. A pedagogue may have to make some comment on the second question. But this would be a different approach. If the analysis of a question shows that its presuppositions are not in line and do not involve any articulate implication, the expectation of an answer dwindles. We either cancel the question or put it in a different way.

One may say: There may be therapies hitherto unheard of and entirely different from all we know today. That is right. Where there are three or four ways of doing a thing there may be a fifth and a sixth way. There may be a hundred ways. If it comes to numbers no limits are set. But what is the use of that? We do not know the directions of those alleged ways.

Where there is no guidance there is no problem.<sup>23</sup> Questions are driving at definite results. Where they come to a dead end something is wrong. Where they shoot off into the infinite there is also something wrong. The analysis of such questions is of high value. It reveals the structure of our thinking better than anything else, but it does not convert nonsense into sense. Paradoxes, sophismata, antinomies do not show us which way to go; they warn us which way not to go.

Questions are ventures into the unknown. However, there is a natural courage in us to broach them. Our searching for knowledge is born of optimism. We feel confirmed by an inner voice which tells us that we are right in going ahead and in trying to find the answer. There is knowledge at the bottom of our question, belief at the bottom of our wondering. There is a conviction that our drive finds not only a way, but also an end. When Columbus left the old continent, he felt sure that the earth was round and that he moved in a closed system rather than into the infinite, and that he would some time get home again. There was security at the bottom of his anxiety. So the range of our questions is a closed system. It has its center and its border, its weight and its balance, its law and its structure. It is within its scope that we drive home our questions.

A bird never saw the air which carries his flight, but he is aware of it. If he were not, he would simply not try to fly. He would not feel any security if there were not a thing to hold him. There is something to hold us when we venture questions. They do not drive us out of the world. The world which they try to explore rather than to escape is the world of our

<sup>23</sup> "If our problem itself is unspecified we are leaving subconsciousness without guidance and consciousness with no measure of success." Brand Blanshard, *The Nature of Thought* (New York, 1940), p. 195.

potential knowledge. All things belong to this world which we are able to grasp, and may be interested to understand.

Whenever we ask a question and expect an answer, the question and the expectation as well as the answer are preconditioned by the body of our knowledge. The expectation which is at the bottom of every question carries as far as the capacity of our understanding or, what is the same, as the body of our knowledge. He who asks a question expects not only that there is an answer to it, but also that he can understand the answer. He is right about it. He could not ask if he did not, to some extent, have the actual knowledge of the presuppositions which make the question possible, and which, at the same time, implicate the answer. He who raises a question is able to understand the answer to it.

It happens often enough that we say to a child: "You ask questions to which you cannot yet understand the answers." This is a mistake of ours. By asking a question, a child shows that he is able to understand the answer which he is expecting. The trouble is that it is often hard to know what he is driving at. If a boy of four is asking why this car starts running, the proper answer would probably be: "Because I step on the gas." This may be all he wants to know. It tells him the whole story. He does not have further questions because he would not understand the answers. He would not understand the answers because he is not yet mature enough to ask the respective questions. The answer as given to him is correct, it is satisfactory, it is definite for this boy of four. If he were a boy of fourteen, the answer would still be correct, but no longer satisfactory. He would probably like to know something about the motor. He is now able to understand something about it and wants an answer which exhausts the capacity of his potential knowledge. There are often several correct answers to a question depending on how far we go into details. But only one of them is, at the same time, satisfactory, depending on the depth of our question. Answers appear to be definite if they fall neither short of, nor beyond, the capacity of our potential knowledge. We do not see a problem where we would not understand the answer; we understand the answer if we see

the problem. We may be insatiable in inventing new questions; but we try to settle every single question definitely. The system of our knowledge has an equilibrium which warrants the equipoise of questions and answers.

It has long since been a problem how it is possible that we do and do not have the answer to a question we raise. We seem to have some secret knowledge of things we do not yet know, but which we are eager to learn about. A question is like a package. We do not know what is in it. But we know where it comes from. We feel its size, its weight. We have some clue for our guess. When we ask a question we do not yet actually have the answer. It is usually neither in our consciousness nor in our subconsciousness. But we do know to some extent what the answer will mean to us and where it will fill a gap in the body of our knowledge. There is confidence in our asking. The process of raising and answering questions is the way the system of our knowledge is functioning. We believe in this mechanism more than in anything else. It is our basic belief. Even the greatest sceptic who pretends not to believe in anything still believes in this mechanism; otherwise he could not say one sentence which he thinks is true.

Every one of us knows that he is liable to make mistakes. But in confessing this possibility we establish our belief in something which (whether we grasp it or not) will not be a mistake but the right thing. Notwithstanding our errors, we feel confident that our searching for the truth is not a fake, but that we are after something solid, that we have the right to make statements and to judge upon things, and that at least some of our judgments are right and beyond doubt. We are sure that there is some sense in our thinking. This security is derived from our awareness that the process of our thinking takes place and moves around within the limits of a closed system. Raising and answering questions indicates the way this system functions. Our questions are determined by ends, our answers are good within the limits of the system of which we are in command. They may still be good though not exhaustive in systems of wider scope, as we shall see later.

As long as we do not yet have the answer to a question we

do not know for sure whether there is any sense in it. It may turn out to be a silly question. Of course, we mean something when we are asking. But it is only the answer which establishes the full sense of the question. On the other hand, we have seen already that there is no sense in any answer unless there is a virtual question driving at it. If there is any sense in our thinking it is in this bilateral relationship between question and answer.

Asking and answering questions is the mode by which our thinking moves. These are the steps of this process: At first, we take a thing for granted—we just have it, we do not think much about it. Or we do not know about it at all. Then the thing comes into the focus of our special attention. We start to wonder about it. We make it the object of our study. While this happens the thing does not appear so close to us as it seemed to be in the beginning. It is removed—still not so far as to be beyond reach. We can reach it by way of thinking about it, and this thinking has taken on the form of questions which aim at the thing. In answering these questions we determine the sense of the thing. It now becomes an object of our knowledge and comes to be incorporated into the body of our knowledge.

The building up of the body of our knowledge is not merely an intellectual affair. It has its emotional background which affects both question and answer. As far as the answer is affected the interference may be useful or harmful. It is useful if it simply adds momentum to the question and pushes our drive towards the answer. Mere curiosity, pure interest, "intellectual love" are emotions which render such faithful service. Harm is done if our emotions bias the anticipation of the answer and blindfold our objectivity. Such emotions do not belong to the realm of knowledge, but to the realm of taste. They are illegitimate sponsors of our thinking. Where they interfere, a wrong answer may be accepted because it is desired. Temporarily, the satisfactory answer does not seem to coincide with the correct answer. And yet, in the long run better knowledge will prevail against prejudices. Emotions are the stimuli of our questions, but they do not have the final

say about the answer. They are often contradictory to each other. But the stability of our body of knowledge is not challenged by their antagonism. Its structure cannot be bent arbitrarily. Its cogency is transferable to anyone whose scope is wide enough. Emotions are contagious, no one is immune from evidence. The body of our knowledge sooner or later eliminates any illegitimate ingredients as they disturb the coherence and integrity of the system.

Of course, it happens that emotional answers, based on wishful thinking rather than on thorough examination, are accepted as temporary makeshifts while the correct answer is still far away. They may function as emergency bridges over gaps which could not yet be filled properly. Such bridges can also be built as clever devices in order to further the investigation. But if nothing but wishful thinking is at the back of it, such bastard knowledge will not prove fertile. It has the tendency to settle down behind screens while genuine knowledge is always moving and stimulating new questions.

The influence of our emotional background on our answering questions may be great; its influence on the questions themselves is, however, of much greater significance. This influence is not a matter of incidental prejudices any more; our whole personality is involved in it. The choice of our questions is determined by this influence.

There are many things in the world which are within the range of our potential knowledge and which, therefore, we are well able to understand but prefer to ignore. To be sure, Life urges us to spread our interests over a variety of things which we are capable of dealing with. But some interests are reinforced by something which is deeper than practical need. They appeal to us and call for an intensified effort. We call them concerns. They are not incidental, but a function of our personality.

Our personality is, at the same time, free and organized. So are our concerns. We are free in selecting those questions in which we are most interested. We do it in a way which reveals a plan. There is method in our raising questions. Once raised, a question enters the range of studies which are not

any more determined by our personality. Launched from subjectivity, the question drives at objectivity. The law of our answers is impersonal. It is the same law which rules the body of knowledge as given in Science or any encyclopaedia. We are free in asking questions, but bound in giving the answers.

At this point, knowledge parts from belief. Religious belief throws the whole personality into the question as well as into the answer. Our totality is the background of our religious convictions. Their strength fades away as soon as we mistake belief for the feeble sister of knowledge and its dogmas for something not certain enough to be real knowledge. Religious questions come to be meaningless if we release them from the power of our personality and drive them towards objectivity. Our religious convictions are not built up in such a way as to be ascertained by means of a scientific approach.

The compatibility between religion and knowledge is endangered if religious questions are taken as scientific or if scientific questions are taken as religious. Both mistakes have been made. If every question is neatly determined as belonging to one or the other realm, compatibility is warranted.

A religious question is always based on the presupposition of our limitation and deficiency. We fail in many ways. Often our failure will be incidental. We may make up for it another time. But there are limitations and deficiencies which are tied up with the *Hic* and *Nunc* of our existence and with the particularities of our final ends. We come to be aware of them when we get sight of that Beyond, which is their measure. Religious questions take their confidence from the Beyond. If we question the Beyond we question the fact that our fallibility is something more than incidental. Knowledge establishes its goal as being absolute and yet within reach. There is no Beyond. Knowledge does not hold the Beyond. If we try to prove the existence of God we both imperil our belief in God and miss the proof. Knowledge is far from religious humility. It is power. It has the tendency to usurp, to expand, to increase.

An increase of our knowledge is brought about either by converting potential knowledge into actual knowledge or by widening the scope of our knowledge.

In materializing our potential knowledge we take advantage of the fact that our understanding covers a larger ground than our actual knowledge. Our understanding is co-determined by that part of our consciousness which is not, at least not yet, fixed in terms of well-defined objects. For by no means does the body of our knowledge fill the capacity of our consciousness. There are impressions, emotions, desires active in our consciousness of which we are well aware though we have never made them the object of our thinking. The objective world of our knowledge rises from and merges in a pre-objective world. This world has no less shape than the body of our knowledge.

Our thinking is either discursive or intuitive. Our discursive thinking is fed by merely intellectual processes. Our intuitive thinking is fed by the pre-objective world. Our intuitive answers are pre-shaped in our pre-objective world. The analysis of this world supplies our potential knowledge with definitions, classifications, judgments. Beyond our knowledge, our experience is a floating stream which passes like a dream with nothing ever fixed. Our intellect singles out objects, names them, fixes them. It compares the objects, gives several of them the same name, classifies them. It combines them in judgments. In doing so we are guided by intuitive ideas which help us to find out how things belong together and are related to each other. We apply the categories of identity and similarity, we are tactful in preserving organic connections, we try to rebuild the integrated world of conceptions and notions. While the test of our discursive thinking is conclusive coherence of its results, the test of our intuitive thinking is harmony with our pre-objective consciousness. Two common (though probably wrong) definitions of truth are derived from those two tests. Each test leads to evidence, the point where our questions come to a standstill. When evidence is reached there is no sense in driving the question further nor, in fact, is it a possible thing to do.

Evidence is the end of our questions. In the beginning, everything is a matter-of-courseness. In the end, it is evident. The question is the conveyance to carry it from the one to the

other end and to transfer it from the pre-objective into the objective world.

Animals do not ask. Where there is no question, there is no problem. Animals take the world for what it appears to them. The mere fact that things are what they are is the reason that they are what they are. There is no gap between the fact and its reason. There is no space for a question. There is nothing to be examined. In the light of human intellect, the reasons do not coincide with the facts. They appear behind them. The Why, the What, the How begin to stir up the mind. Man discovers the potentiality of his knowledge. The question is born. It creates the inward energy to set the world in motion. Matter-of-courseness on the one side, evidence on the other side establish a solid frame.

But the scope of our knowledge could never widen, the volume of our understanding could never deepen, if this frame did not break from time to time. How is this brought about? By the size of our problems? By the growth of our minds? To be sure, our minds grow with our problems. But it is never the problem which breaks the frame. If it did it would mean that we notice problems beyond the scope of our understanding, which is not the case. It is always the mind which breaks the frame.

The matter-of-courseness which was spoken of before is based on a system of presuppositions which, no matter how far we extend our questions, are beyond them as something unquestionable. While our minds grow it happens from time to time that the validity of some of those presuppositions weakens. Now if a presupposition ceases to be exclusive, any evidence based on it ceases to be absolute. It is usually certain border-problems which make us aware that some evidence, hitherto definite, has become debatable. We start to question it; we formulate a broader conception. The evidence has become transparent; new evidence looms behind it. This new evidence as we approach it appears to be based on new presuppositions constituting a larger basis than there was before. We break the old frame with much anxiety, yet with the hope that a new frame will support our progress. Anyway, it is a

venture. If we fail we shall harvest nonsense instead of new sense or advance theories which may be harmful rather than useful.

In order to examine this progress we discuss a few examples emanating from border-problems.

First example: We look into the landscape. If we are simply in a dreamy mood we enjoy the impression as an integrated whole without picking out details. But now, our intellect starts working on that impression. Our attention is centered on an oak tree which we single out as an object of our thoughts. It is an object easily defined. We may even have an idea of it before we try to examine it. There is something imponderable about the trunk, branches and leaves which tells us that they belong together. We are not sure about that queer piece of a root which breaks the surface of the soil. Anyway, it is possible to dig out the tree and ascertain which parts are physically connected with, and therefore belong to, the oak tree and which do not.

So far, everything is quite clear. But oak trees often have parasitic plants living on them in close physical connection. Are they parts of the tree? There are outgrowths caused by the sting of certain insects. Are they parts of the tree? There are pieces of bark, twigs, leaves which are dead and almost disconnected. Do they still belong to the tree? Or since when have they ceased to belong to it? There is dew on the leaves, almost absorbed. There are particles around the roots, almost digested. Do they already belong to the tree? What about the acorns which the tree is just ready to drop?

If we want to be extremely minute about the question of how the oak tree is separated from that which is not a part of it, we hit upon awkward border-problems. Usually we belittle such difficulties and find the pedantry of looking after them ridiculous. But they gain significance as soon as we develop a new conception of life. Perhaps the world is a huge organism of which plants, animals, and men are only parts. Singling out an oak tree as a unit in itself may mean the same thing as cutting out the liver of a chicken. Shall we accept the idea of such a macrocosm? We may not be ready to bear its

consequences. If we are, they will change the aspect of life considerably. They will affect our social and political opinions as well as our scientific theories.

Second example: The difference between animals and plants is clear to every child. We have a definite idea of it before we even start to think much about it. Science, however, comes across phenomena which make the distinction more and more complicated and the classification based on it more and more sophisticated. Moreover, the microscope discovers beings to which no such classification can be applied at all. We do not know whether we should call them animals or plants. We may shrug our shoulders about it. We may also feel like dooming the distinction of animals and plants to relative insignificance.

The classification of energy and matter presents the same problem. Maybe every classification does. Classifications are usually suggested by the nature of things. But if we go to the bottom we find a certain amount of arbitrariness in them, which of course is poison to any evidence. They always do violence to the pre-objective world; therefore they may be shaken off in the long run.

Third example: A small child takes for granted that life goes on and on. If anybody dies whom he knows, he cannot make much out of it; far less is he able to realize that the same thing could ever happen to him. But the time will come when the problem of death will weigh on his soul because he has grown strong enough to bear it. He will question whether his life has no end, and after a long and hard struggle he will be ready to accept the idea that his life is bordered by death. He will even be surprised to find that this new conception which first seemed to destroy his security is a source of strength. His life will have gained a new sense. His understanding of life will be deepened. He will be more mature.

Fourth example: Our ideas of social life have suffered decisive changes in the course of history. They have in turn centered around social structures such as family, tribe, race, nation, mankind, religious affiliation. On each of these bases, a complete system of social standards can be built which is conclusive and convincing—a solid frame which may be kept

for generations. But eventually it may happen that revolutionary times lead one to question the fundamentals of such a system as being either too narrow or too vague. Another approach is tried. Nietzsche's fight against Christian morality may be interpreted as another example of this kind.

Fifth example: It is a well established law that a number multiplied by itself results in a positive number. Complex numbers challenge this law. Are we permitted to introduce them into mathematics? There is no sense in it unless we have been developing a new conception of numbers as the background of such venture. The challenge to the Euclidean postulate of parallel lines offers a similar problem. It is clear in this example as in all the others mentioned that the thrust against our older opinions originates from the discussion of certain border-problems which we take seriously as soon as we feel sufficiently mature to cope with them from broader aspects.

The corresponding features of all examples show a destructive and a constructive phase in each case. (Incidentally, it is well known that adolescents in their intensified struggle with such problems develop from a negative to a positive stage.) In the destructive phase, we feel uneasiness about assumptions which we took for granted before. We get restless and unbalanced. Our growing doubts run loose and pierce the shells which confined and protected the system of our knowledge. We ask whether the evidence of certain presumptions which we considered absolute is really unconditional.

The system of our knowledge suffers a change which affects not so much its contents as its constitutive law. There are gains looming. But their weight is uncertain while we definitely feel the weight of what we are going to sacrifice. It is as if we were going to rebuild parts of a house without being sure our efforts would not bring it to a collapse. Our venture is hazardous. It runs two risks. The first risk is whether we are permitted to take into consideration assumptions which are hardly compatible with what may be called our common sense or our traditional belief. They may lead into sheer nonsense. But supposing we overcome this difficulty and actually establish

a new conception to which we are able to give some sense. It is still doubtful how this new conception will compare with others, older and approved.

Let us take it for granted that humanism is right in visualizing the idea of mankind as a unit which calls for a reform of our social and political views. True enough, this is a much broader conception than that of the family. But it is also true that charity begins at home. It is debatable whether we are already able to meet the demands resulting from so broad a conception as mankind. At least the peak of our efficiency may lie in smaller circles. Sometimes confinement is beneficent. If a person feels ready to base his social ideas and activities on the idea of mankind he is right to make this decision. If a person does an excellent job within smaller borders we shall not criticize him. One thing is sure: if the idea of mankind is acceptable and accepted, all efforts based on a smaller scale are wrong if they are not in harmony with the idea of mankind. In other words, any service to the family appears to be a special case of a service to mankind, or it is wrong. On the other hand, no proper idea of mankind can ever destroy the ideals which are rooted in family life. The new conception always involves the older conception, and the compatibility of both of them is the test for both of them.

The examples mentioned comply with this demand. Definitions and classifications are not done away with after we have come to the boundary line of their significance. They remain useful and are still badly needed within their proper limits. The idea of death does not destroy but deepens our idea of life. Complex numbers and non-Euclidean spaces are not allowed to annihilate former results; they are supposed to function where other methods have come to an end.

The example of Nietzsche is not so easy to deal with. There are good reasons to say that his "Herrenmoral" is about the reverse of Christian morality and by no means compatible with it. He explicitly says and repeats that Christianity goes the wrong way. If this antagonism exhausts the possibilities of an interpretation of Nietzsche his example does not fit in here at all. Why not? Supposing a theory solves its problem

the wrong way. He who says so and undertakes to prove that the theory is wrong is to meet the problem within the scope in which it was raised. For we have already seen that the scope is determined by the question and not by the answer. The question of right and wrong is to be argued on the level which is set by the problem. If an opinion is wrong as viewed from a higher level it was wrong before and it must have been possible to discover this from the lower viewpoint. Right and wrong are sometimes of limited range. Beyond this range they lose their significance. But they do not turn into the opposite. It may be a great achievement to discover that a theory is wrong which was believed to be true. But this achievement does not call for a wider scope. Nor does the reverse of a theory call for a wider scope than the theory itself. If Nietzsche's theory is interpreted as nothing but the reverse of Christianity, a study of this theory may clarify the issues involved in Christianity, but it will not widen the scope of our understanding. In this case, the example will be out of place. However, if we grant Nietzsche the right to overstress his point, and if we try to understand him better than he may have understood himself, another approach to his viewpoint is at least possible. As a matter of fact, Nietzsche could not possibly have put his theories into practice for a single week without imbuing them with a considerable dose of Christianity. Much as he says against Christianity, he is, nevertheless, indebted to it, and the antagonism may not be so complete as his statement of it. If we study his works in terms of their possible compatibility with Christianity they may open our eyes for some views which allow a deeper understanding of Christian morality. It does, in this regard, not even matter whether we learn something from what he says or from the contrary of what he says. If that much can be granted the example is in the right place and as instructive as the others.

The purpose of discussing the five examples is to show that asking a question and calling something into question are two quite different things. The process of calling into question may henceforth be called a questioning. Our final conclusions set forth the difference between questions and questionings.

Questions fill the scope of our knowledge; they analyze. Questionings widen the scope of our knowledge; they are constructive. A question is settled by the correct answer. The correct answer is not beyond the scope of the question, and the new questions to which the answer leads remain all within the same scope. The authority of correct answers is drawn from evidence which borders this scope. Questionings, on the contrary, try to open new ways beyond the scope. They do not have the support of evidence because evidence is what they challenge. You cannot eat your cake and have it too. For this reason, questionings lack verification. They are not a matter of right or wrong. They are a matter of taking or not taking a step. In this respect, they are like questions which refer to our actions rather than to our knowledge. Questions call for a solution, whereas questionings call for a decision. Therefore questionings are a matter of maturity, of responsibility, of consciousness. We are free to accept or to refuse their implications.

With reference to our examples, somebody may say: "A tree is a tree and an animal is an animal. The conception of mankind is too vague to base morality on it. Complex numbers do not make any sense." He may even say: "I dislike the idea that I am fated to die. There is no exact proof of this necessity. A miracle may happen, science may perform it. Science has shown that amoebas are immortal. Science keeps the hearts of frogs alive indefinitely by feeding them in certain solutions. Science may invent something in time to save people from getting old and from dying." The person who says so will not have access to many questions which may enrich our thinking. But we cannot claim that his thinking is definitely wrong. The old Greeks were brilliant mathematicians. However, they thought of numbers in terms of a conception which did not allow the introduction of complex numbers. We may call this conception into question and switch to a new conception which allows us to make use of complex numbers. If and as soon as we decide to take this step which leads us quite beyond the scope of our former thinking, new problems come up—problems which involve the use of complex numbers. Such prob-

lems have been meaningless before; now they make sense. More than that, we discover that we have a clue for solving them. If there was any arbitrariness in introducing complex numbers, there is certainly no longer any arbitrariness in using them. While we introduce them we establish a new evidence. We are able to test whether we solve the new kind of problems the right or wrong way.

Questionings constitute evidence. They constitute questions.<sup>24</sup> This has long since been obvious in mathematics. Our examples try to make clear that it is the law of our thinking on the whole. We may ask: What are the possible targets of our questioning? The answer is: Probably everything which claims evidence.

Questions are directed towards that which is known to be a possible object. As long as we do not have the answer the object is not clearly seen, at least not in its every detail. But it is part of our world. Questionings, however, keep the reality of our world in suspense. They bring us face to face with life and its enigmatic ventures. They explore new depths of life and create, or equip us with the sense for, new models of possible objects which will stimulate our appetite for more knowledge. Questions are guided by objective understanding. Questionings are guided by creative understanding.

At first glance, questionings seem to destroy. But they do it in no other way than organic life does—by fertilizing the soil for richer growth.

<sup>24</sup> John Dewey holds that "logical forms accrue to subject-matter when the latter is subjected to controlled inquiry." (*Logic, The Theory of Inquiry* [New York, 1938], p. 101.) If the function of creating logical sense is confined to questionings, our arguments are, to some extent, compatible with Dewey's theory. The operational property of questionings is beyond doubt.

## LEARNING

THE word learning carries a number of connotations. We learn how to skate. We learn a poem by heart. We learn a language. We learn how to treat a child. We learn that one plus one equals two. The last of these examples indicates the mode of learning we shall be concerned with in the following. Understood in this sense, to learn means to inquire into the nature of given objects and to arrive at conclusions which can be formulated and communicated. The result of this process will not be a skill but an insight.

New insights ensue either from experience or from logical deductions or from a combination both of experiences and logical deductions. Usually we interpret new experience in terms of familiar experiences, and our inferences are, of course, always taking their point of departure from facts known to us. Thus, new knowledge is obtained either by means of the application or as the implication of previous knowledge. Once we have made a start and acquired some amount of knowledge we are apt to apply it to new cases as well as to examine its possible implications. This is the way, at least the ordinary way, the body of our knowledge grows.

If we are able to understand that one plus one equals two, we will be in a position to derive from this simple theorem a vast number of more complicated theorems. In fact, their number is infinite; yet they will all be found within a certain compass. Generally speaking, the potential knowledge which is the implication of our actual knowledge has certain well-defined qualities which are a function of the actual knowledge. This being so, we are permitted to make positive assertions anticipating, in general terms, the nature of that which is not yet known. Our conception of the unknown is disciplined by the requirements which have to be met in order to establish a satisfactory connection between that which is known and its unknown implications.

1. The unknown is of limited magnitude. Of course, the number of knowable facts is inexhaustible, but their nature does not exhibit an unrestricted variety. Once we understand

that one plus one equals two we can derive from it the answer to innumerable problems which, however, are all of the same kind. In fact, the continued application of our proposition will hardly be regarded as a significant increase of our knowledge. Only those derivatives will be considered as important gains which open new fields of arithmetical operations, e.g. two minus one equals one, one times one equals one. It may be difficult to prove that the number of such derivatives deducible from any proposition is finite, but it is hard to believe that it could ever be infinite. Our knowledge is limited; its implications will not be expected to be unlimited. The body of the unknown has the same structure as the body of our knowledge and satisfies the same conditions. Every one of those facts which constitute the unknown as a whole lies in a certain province in which we have traveled and within a certain distance from facts we know; otherwise it could not be the implication of what we already know. The novelty of the knowledge obtainable by way of inference can be exhausted even if the number of possible operations within its range cannot.

2. The unknown is determined. Not only do unknown facts lie somewhere in certain provinces but they occupy definite places in them. Before they have been traced down, anticipatory statements can be made regarding their nature and properties. The attributes of the unknown are implications of that which is known. As we focus them we become gradually aware of questions which aim at the position of the unknown fact with growing degrees of accuracy. A classic example is the famous discovery of Neptune of which the weight, the orbit, the velocity, the position had been calculated before a human eye had ever seen the planet. If in our effort to link the unknown with the data we ever find that there are not sufficient data to determine the unknown with accuracy, the problem loses its significance and the unknown we have been looking for vanishes into nothing. However, the unknown cannot be nothing; it is something, and being a legitimate part of our world it is accessible to scientific inquiry and identifiable and we are encouraged to search for it. In other words, the unknown is real enough to impose on us a meaningful problem.

3. The unknown is knowable. Nothing can be unknown unless there is a way of knowing it, just as nothing can be true unless there is a way of verifying it and nothing can be asked for unless there is a way of giving the answer. Scientific thinking regards as unlawful the introduction of statements which can never be verified or the raising of questions which can never be answered or the assertion of unknown facts which can never be approached. Our world is a world of objects and nothing in it exists which cannot possibly be the object of our thinking. Many objects are far away and not clearly visible; but nothing is given unless there is given with it the direction in which we have to go in order to get nearer to the object no matter how long the journey may be before we actually reach it. He who understands a certain proposition has already made the first step on his way to understanding the implications of this proposition. Every known fact is a signpost pointing at unknown facts, just as every answer enables us to raise new questions. The organization of our actual knowledge guarantees sufficient orientation for our effort of laying bare our potential knowledge.

4. The unknown exerts an influence on the minds of those who are searching for it. They are not blindly bustling about in a vacuum but guided by certain anticipations. The idea of the unknown is tantalizing. It interests us, bothers us, stimulates us, fills us with excitement and keeps our thinking alive until we feel the nearness of an answer and see a method of enforcing the solution. No doubt, the unknown is a reality, not only as an aggregate of facts which are accessible to reasoning but also as a power which directs the activities of our minds. Although this is most evident with regard to facts which we have forgotten and try to recall, it is also true of facts which we have never known if they are in the line of our interests.

The unknown is of limited magnitude, determined, knowable, and exerting an influence on the minds of those searching for it. As we are able to qualify the unknown we feel encouraged to think of methods which will lead to discoveries. Once we have made a start and obtained some basic knowledge

we are in a position to go on learning and to unfold the implications of what we know. The science of heuristic is largely based on the properties of the unknown we have stated. However, our claim was founded on the presupposition that the unknown was the implication of the known. How do we obtain knowledge which is not simply the implication of previous knowledge? How do we start from scratch? As regards this question, our findings seem to be of no avail.

Isn't our mind before we ever start to learn a *tabula rasa*? How are we able to develop any knowledge from nothing? Of course, our senses register changes in our environment. But a camera also has an eye to render this service, and yet a camera never starts to interpret the imprints it gets from the outside. How are we able to receive sensible impressions which allow for an organized start into the world of knowledge? In doing this, are we still under the guidance of unknown facts which, in this case, could never be implications of previous knowledge? Can our statements about the unknown be applied to a type of unknown facts which cannot be derived from known facts? Is such a type of unknown facts imaginable? Or what are the available means by which we get started on our way to obtaining knowledge?

How often does it happen that we start from scratch? Only once in a lifetime, right after birth, or even before we are born? If this were so it would probably be difficult to find a basis for our discussion. Those who can remember cannot tell and those who could tell cannot remember. However, it seems utterly unlikely that all we learn later should be the implication of the first confused impressions we register as infants. On the other hand it may not always be easy to recall examples of learning which initiated entirely new chains of thinking. As a rule it is a slow process rather than a sudden flash of insight by which we mature to the capability of taking up completely new branches of knowledge. We are hardly aware of our growing. Only sometimes the illumination will come as a striking surprise.

A boy aged eleven has his first lessons in geometry. It so happens that he has just changed his school and that his new

classmates have an advantage over him because they have already had a preparatory course in geometry. For two or three weeks the boy understands little if anything of what is going on and he feels lost. One day the teacher speaks about two angles drawn on the blackboard, and it is clear from what he says that one angle is bigger than the other. To the boy it looks the other way around and in the afternoon he decides to think the matter over thoroughly. Finally it dawns on him that the size of an angle is not dependent upon the length of its sides. This flash of insight revolutionizes his whole thinking and permits him a first glimpse into the nature of a science which examines the proportions of its objects irrespective of their absolute sizes. He will have no further difficulty in catching up with his classmates and in studying the world *more geometrico*. For he has a point of departure enabling him to initiate a long sequence of logical inferences.

Now we have the problem clearly before our eyes. Our boy has started to learn something from which to go on. He has really entered a new world. Looked upon with naive eyes, objects have corners but they do not have geometric angles with qualities of highly abstract nature. A triangle is the simplest figure a mathematician can think of, but it is not easy to find anything in nature which resembles the shape of a triangle. As long as we enjoy our world in terms of naive thinking we will never find access to the problems of geometry. How was our boy of eleven years old prepared for a discovery which, if applied to the world of natural objects, would enable him to see that a tiny new-born sparrow could open his mouth wider than a politician? Isn't this a paradox if we consider that politicians have wider mouths than sparrows?

It is, of course, certain that the boy had seen geometrical figures before. He had seen circles and squares drawn on paper and he had probably enjoyed their beauty and harmony. The close relationship between mathematical thinking and aesthetic experience has often been pointed out, recently by Jacques Hadamard. But the greatest artists are not necessarily the greatest mathematicians, and no one will go as far as to say that a sense of beauty is all there is needed for the solution of

mathematical problems. Geometry is a science applicable to the world in which we live and possibly related to aesthetic experiences but not derivable from either of them; it is a world of its own, and when our boy started to learn something about it he could not connect his discovery with any previous experience nor depend upon his sense of harmony, but he had to learn from the bottom.

Is our knowledge of physiological processes of any use in trying to get a hold on our problem? There is no doubt that the brain of a child must have reached a certain stage of development before he is mature enough to understand geometrical theorems. In fact, the degree of mathematical ability may correspond to an explorable structure of the brain. But whatever the anatomical conditions may be, their discovery will never help to explain how a human mind works in solving mathematical problems. All we can assert at this point is that a normal child of a certain age is ready for an intuition which will illuminate the entrance to a new world, and this will be a world in which shape means everything and absolute size nothing.

Rather than waiting for help from other fields like physiology or art, we should examine our problem in philosophical fashion. Let us take up our example again. The size of an angle is not dependent on the length of its sides. For two reasons the formulation of this proposition may be open to objection: first, it puts a positive insight in negative terms; second, it speaks of an angle before we are able to know what an angle is. It may, therefore, be proper to express the thought involved in the following way: If concentric circles are drawn around the point of intersection of two straight lines, the arc caught between the lines will in every case be the same fraction of the whole circle. Thus formulated, the statement speaks of straight lines and circles of which we probably have an early and intuitive knowledge, but further geometrical conceptions are not involved.

Who is no longer surprised by the beauty of our proposition? It is a real miracle and works a miracle. If able to understand it and to grasp its importance, we are prompted to in-

roduce a new element into the world of our thinking: the conception of an angle. Intersecting lines exist everywhere in the visible world. Whether there exist intersecting lines which are straight may be a matter open to dispute. Angles do certainly not exist in the visible world. An angle is not identical with two intersecting lines but with the space bordered by them within a plane, and this space has the peculiarity that it has borders but not enough of them to be caught. An angle starts somewhere and ends nowhere, having properties that cannot be demonstrated in the visible world.

Generally, there is a close relation between knowledge and experience. In fact, knowledge is experience reflected upon in objective terms. It would seem, then, that there is no knowledge which has not in some way, directly or indirectly, grown out of experience. But this statement is not true of gains of knowledge such as the insight into the nature of an angle. There is nothing in our experience of the visible world that imposes on us the conception of angles. In fact, even if we understand, word by word, the proposition concerning two intersecting lines as stated above, we may still miss that conception unless we visualize the far-reaching applicability of the figure we see before us with regard to an entirely new aspect of the visible world. It is only then that we give this figure a new name, that of an angle, and introduce it as an integral element into the realm of our thinking. In doing so we must be guided by hunches that indicate the usefulness of our new idea. If we saw a figure composed of two intersecting lines one of which was not quite straight we should not be bothered by it. The slightest deviation from the straight direction will kill our interest in that figure because its examination would not promise any remarkable results. Unless there are other factors involved that make the figure an interesting one we do not waste time on it. It appears irrelevant. Of course, there are mathematical methods of getting any sort of line into the scope of geometrical discussion, and these methods are very interesting but lines drawn haphazardly are not.

What may make an angle an intriguing figure in the eyes

of our boy? There is probably looming behind it the idea of polygons. Of course, the boy has seen polygons before and he has admired their beauty if they were regular ones. But he had not noticed before that a polygon besides having sides also had angles, and therefore he had not understood it as a geometrical figure at all; it had rather been a kind of flat body, something to cut out and to handle. Even now, as he accepts the conception of angles, he is very far from guessing all the beautiful theorems that define the properties of polygons. But somehow he will feel that a whole chain of interesting problems comes in sight as soon as he recognizes angles as legitimate elements of his thinking. The new term becomes meaningful because it stimulates meaningful questions.

Are those questions really meaningful? Are they more than a wanton play with imaginary entities? Do they lead anywhere? Do they have a bearing on reality? While they may seem enticing, the risk that is involved in taking them up should not be overlooked. Indeed, our boy is about to introduce into his categories of understanding an element which, judged by all his previous experience, looks bewildering and paradoxical. To a naive mind, the world is composed of objects that have three dimensions. In such a world an angle, if an object, is a peculiar one, having only two dimensions, starting somewhere and ending nowhere, being measurable in terms of degrees rather than in terms of cubic or square inches. The sides of an angle must have some length—otherwise there would not be an angle—but how much length is irrelevant. Adults may long since have forgotten how strange a thing an angle is and how big the venture of acknowledging it as a real object. Does it not annihilate convictions which seem evident to a naive mind, for instance, the conviction that everything in the visible world must have a shape and lie within certain borders not occupied by other things and that it must be identical with nothing but itself? An angle does not even seem to meet the last demand: you draw one here and another one there and, for all practical purposes, they may both be the "same" angle. Is it really possible and useful to discount the all-important principle of the "here and now" and to simplify

the aspect of the world in a two-dimensional scheme of interchangeable geometrical figures?

Such are the issues involved in the acceptance of the new element. Our boy aged eleven will not be worrying about them very long because he confides in the superior intelligence of those who have made the step before him. But if he were the first human being ever to introduce the conception of an angle it would be different. There is something which suggests that the new conception is permissible, and there is also something to warn us that it is not.

If we knew precisely what it is that suggests the use of our new conception, we should have the answer to the question of how we start to learn, at least in one case. We have already seen that it can be neither a new interpretation of former experience nor a new logical deduction from previous knowledge because, to a naive mind, experience and logic contradict rather than affirm the idea of an angle. Whatever the solution may be it seems sure that the mental act of getting a hold on this new idea is an act of understanding. The apperception of the new idea is experienced in a flash of insight which illuminates—what? Here is our difficulty. We are at a loss as to how to define the object which is understood. Is it an angle? However, the idea of an angle is given birth only at the moment the intuition takes place. Before this moment the angle was non-existent; it did certainly not have the status of an object; and if the intuition was preceded by a period of contemplation and concentration it is hard to see how the angle, not yet existing, could have been the focal point of the antecedent considerations.

What did the boy actually experience shortly before he had his intuition? The chances are that he went through a period of frustration. He was confronted with a saying of his teacher that he did not understand and he saw no way of connecting the problematic statement with any previous experience. There was something working in this boy; but he had no direction, no starting point, no method. He was impatiently standing behind a wall which seemed insurmountable. His thoughts were moving in a circle, and he did not feel that he was making

any progress. Ordinarily an act of understanding illuminates an object on which we have methodically focused our attention. At least, this is the case whenever we proceed along familiar lines. But when we start a new chain of thinking there is no object given to stimulate and to guide our thoughts. The force that pushes us is powerful but intangible.

The object constituted in such an enigmatic act of understanding appears, to the first glance, as questionable rather than convincing. It destroys former evidence and is loaded with serious problems which create a new province of the unknown. For a while the pros and cons are in a balance. Shall we accept the bastard? We may decide in the negative and leave matters as they have been before; we may not be too confident in the value of our discovery and we may be afraid that others would not follow us in acknowledging the new idea. Thus many visions have been rejected in history as hallucinations. If, however, we decide in favor of our discovery we do so because the intangible force behind us, whatever its nature may be, overcomes the urgency of the warnings issued by the new object and by the thought of its possible implications.

This report of what is going on in a moment of an intuition seems to dramatize an event which, in ordinary life, takes place in less striking fashion. But we have to use magnifying glasses if we want to focus the peculiarities of our phenomenon. It appears that we are dealing with an act of understanding qualified in so far as the object which is understood is brought into existence by that very act. We remember having dealt with this phenomenon before and having called it an act of creative understanding. Of course, the term explains nothing, it simply reminds us of the difficulty with which we are confronted in our effort of finding out how we start to learn.

It is evident that an act of creative understanding involves a decision. As a rule we test ideas by asking whether they are right or wrong. This test fails us at the moment we try to start a new line of thinking. The idea of an angle is not right or wrong; it is either sensible or nonsensical, and we persuade ourselves that it is sensible if we feel that we can make use

of it in certain mental operations. Its acceptance is, in some way, comparable to the introduction of an auxiliary line in a mathematical argument. However, the value of the latter becomes soon evident while the value of a conception born in an act of creative understanding remains problematic. It is up to us whether or not we want to familiarize ourselves with it.

It may be objected that the idea of an angle proves its worth in countless practical applications which make it extremely useful, for instance in the solution of trigonometrical problems. But does this objection hold water? The establishment of a geometry is conceivable in which the idea of direction substitutes for that of an angle. Instead of saying that the angles of an equilateral triangle equal each other we could say that the direction of two of its sides, whichever we choose, differs to the same degree. The idea of direction is obviously simpler than the one of an angle because the former involves one line and the latter two of them, and yet it may be possible to solve many geometrical problems without recurring to the conception of an angle.

The ancient Greeks saw no danger in accepting the idea of an angle. But they consciously refrained from negative numbers and many other symbols which in our eyes are almost indispensable but in their opinion were abstruse. Consequently their methods of dealing with arithmetical problems were clumsy; still they kept on the safe side and went very far. If they were still alive and were told about many short cuts we nowadays take they would probably shake their heads in despair over a generation that had lost all common sense. In short, there is no final test to find out how far we are permitted to go in accepting mathematical conceptions of that sort. We have to take chances.

Is our decision enforced by the fact that the introduction of new conceptions is indispensable because otherwise many problems would be insoluble? Every mathematician will recall theorems or problems which can be stated in a very simple fashion although the proof or solution call for highly refined methods. However, the number of such cases is small, and mathematicians may have a reason to feel uneasy about them.

It should be possible to keep the argument of a theorem on the same level on which the theorem has been formulated. Similarly, it is often easier to observe problematic facts in nature than to explain them. But we will not accept an explanation unless it determines the questioned fact as a plausible link of a chain of inferences which lead up to evidence, and evidence is always based on the intuition and acceptance of constructive ideas. These ideas are points of departure rather than goals on our way to explore the world. Their introduction makes our problems meaningful; their omission deprives them of their meaning. The significance of any problem which presents itself to our mind is tested against the background of such lines of thought as are familiar to us, and if the available resources fail to clarify a question it is eventually abandoned.

Understanding, in the ordinary sense, is a way of organizing experiences that we have had. Every act of creative understanding, however, is an experiment that challenges new categories of experience. It is like opening a new window which may command a new and interesting view of the world. If we have good luck we observe old objects from a new angle and notice new objects hitherto completely unknown. Creative understanding calls into being a number of knowable facts which gain the status of being determinable by nothing but the very act of accepting the obtained insight as meaningful. Thus a new plane of possible questions is established and an addition is made to the unknown.

Whenever we speak about the unknown we mean, if anything, the implications of what we already know. Beyond those implications the unknown ceases to have any meaning. Our mind, at any given moment, has a certain capacity; correspondingly the unknown, at a given time, has a certain magnitude. It has been said before that the unknown is of limited magnitude, determined, knowable, and exerting a certain influence on the minds of those who are searching for it. This statement has been restricted as applicable to the unknown only in as far as it was the implication of the known. Now we add that the restriction can be lifted and the statement general-

ized because the unknown is always the implication of the known and nothing beyond. However, we also learn that, paralleling the development of our mind, the unknown is growing. It comes into existence only by certain operations of our mind. As long as we go on learning the unknown is shrinking, of course; as soon as we start learning, it increases. The shrinking is a slow and steady process, the increase takes place in intervals. However, the growth of the unknown is conditioned and is never allowed to extend into the infinite.

The unknown is given us and is imposing its puzzles on us here and now; it is bothering us all the time and behaves as if it were a piece of disguised reality. It is reality. Nothing can be unknown unless it would make sense if it were known. Nothing makes sense unless it is the implication of insights arrived at through decisions of the kind we have been talking about. No one is able to say how many intuitions he has ever had helping him to discover new ways of interpreting his world. But their number must be finite and so must be the number of implications involved. Of course, there is an innumerable number of facts which can be known, but there is not an innumerable number of dimensions which harbor those innumerable facts. The properties of any fact, known or unknown, are defined in terms of categories which we have accepted in a chain of decisions.

Nothing presents itself to our observation unless our mind has developed a scheme of interpreting it. We do not start to learn before we are ready to learn; for the unknown that we try to overcome in our learning is a function of ideas or principles which we set as valid categories in an effort to understand life in terms of objective statements. There is no more world around us than we have permitted to enter through the filters of our sense perception by acts of creative understanding.

It is obvious that the body of knowledge a person commands is dependent upon the capacity of his mind. It may seem less obvious that the unknown likewise depends upon the capacity of a mind facing it. Is not the unknown, besides being potential knowledge, that which will perhaps never be known by any-

body's mind? Are there not things between heaven and earth which are, and will always be, absolutely unknown? But what do we mean when we make such a statement, which is unverifiable? Cut off from all relations, the unknown dissolves into nothing. It must always be in some functional relation to what is known.

We might say that the mechanism of an automobile will always be unknown to the mind of a horse. This sentence makes sense if we mean by it that we, as human beings, are living in a world in which there are horses and also automobiles. In other words, it is a statement about our world, but not about the world of a horse. There are not automobiles in the world of a horse. He is, of course, able to see the car which we call an automobile. He will also see something if we show him an angle drawn on a piece of paper. But what he sees in that latter case does not have the attributes inherent in what human beings call an angle. Nor does the car a horse sees have any of the attributes inherent in the definition of an automobile. In the "opinion" of a horse, the "automobile" is too simple a thing as to stir up the question of what makes it run. If we could take a horse's view it would not occur to us that there is an unknown factor involved.

But what about the statement that the future is unknown? This is doubtless a meaningful sentence. Does the unknown, in this case, still have a limited magnitude? Is it still to be found within a certain compass and in functional relation to something which is known? Does not the question involved in this statement shoot off into the dark like a missile that will never fly home?

Even a missile may come back to us if it flies long enough, and the questions lingering at the bottom of the statement that the future is unknown may not be quite so malignant as they appear at first glance. The statement may mean either that the future cannot be predicted or that future events cannot be verified before their time although we know that there will be events to come.

The first interpretation is based on the assumption that a superior mind should be able to understand the future as an

organized whole that is rational and can be expressed in a system of formulas irrespective of the time element. If we were in possession of these formulas we could predict the future. There will be nothing in existence of which the causes are not existing now; and the future would be within the scope of our calculations if we were able to take into account the full impact of all existing causes. Indeed, scientists make this assumption. Although knowing that a human mind will never exhaust the problems of the world, they attempt to go as far as they can. They try to predict the weather, the sex of a child, the turn of political events. It must be admitted that their methods are highly inaccurate but they are improving. To some extent the future is really predictable as the necessary effect of causes which exist at present, and as far as this is the case the questions concerning the future are of the same order as questions concerning the present. We are on our way of solving them in terms of such categories as are familiar to us, and as long and as far as we believe in science we are living on the assumption that the future, though inexhaustible, remains within the scope of our potential knowledge. It is the quantity rather than the quality of the problem that overwhelms us.

Of course, the future is not entirely predictable because it is determined by ends as well as by causes. In so far as this is true the series of future events cannot be added up and integrated into a whole nor is there a way of verifying them unless we wait until they actually happen. Unfortunately we shall not live long enough to see what the world will look like five hundred or five thousand years from now. Yet, as we ponder over things to come we cannot help envisaging a world which, however embryonic its features and however vague its contours, is seen with our eyes and anticipated in terms of our understanding. The difficulty is practically the same as the one which keeps us from examining the planets of the Aldebaran if there are any. The answer to questions we raise is contingent upon the conditions of the "here and now" which preclude our jump to the Aldebaran or to the year 5000. But the questions are nevertheless of the same order as any of our questions. If a fairy could put us to sleep now and awaken us after

three thousand years we would presumably find a world in which many possibilities we dreamed of have materialized. Also the people living then would probably be able to give us the answer to many problems which puzzled us. Certainly, all we should notice and learn and should care to notice and to learn in this world of three thousand years from now would represent only a part of what will be noticed by, and known to, those living then, but about the other part we should not even have a way of asking a question meaningful to us nor should we show an interest in it—just as a horse is not interested in a lecture about the motor of an automobile. All we care to know about the year 5000 is the answer to questions we are able to formulate now, and there is nothing hidden in the conception of the unknown that does not have some relationship to the known.

Our imagination makes bold to defy spatial and temporal distances but never the limits set to the implications of our knowledge. We have to keep discipline. We cannot jump over our own shadow; if we succeeded the shadow would not be shadow. We cannot jump over our own mind; if we succeeded the mind would not be mind. We cannot make a meaningful statement or ask a meaningful question about a world which is not the world of our knowledge and imagination, and we cannot even say that such world is unknown to us because as soon as we use the term "world" it will mean something necessarily related to our knowledge. There is no escape into the absolute. We cannot always ascertain, right here and now, the truth we are concerned to know, but we can always make conjectures. A truth about which we were, on principle, unable to make any sort of conjecture would not be a truth but an absurdity. It may become a truth to future generations whose minds will be organized in ways different from ours, just as automobiles exist and have meaning in our world although they do not exist, at least not as automobiles, in the world of a horse.

Is this comparison really satisfactory? A horse does not attempt to make any statements about the world in which human beings live. But we make a positive statement about the

ways future generations will understand their world. We say that they will presumably apply modes of interpreting their world which are not accessible to us. In saying so, are we not making a statement about something which is not only unknown to us but, on principle, inaccessible? Is this not a meaningful statement and does it not contradict our assertion that we cannot speak of the unknown unless its revelation could be found within the compass of our thinking?

The answer is no. The statement we make concerning future generations falls well within the realm of potentialities about which we can have a sound judgment. And how could it be otherwise? We have developed methods of interpreting the world which are different from, and possibly superior to, those of the ancient Greeks. It stands to reason that generations to come will have new intuitions and new ways of understanding their world. If these ways were available right now they could either be explained to us or they could not. If they could, they would not be beyond the capacity of our minds and therefore not contradict our theory of the unknown. If they could not, we would not accept them as meaningful, just as a negative number was not a meaningful conception in the opinion of a Greek, and that which is void of any meaning cannot have the status of being unknown. The statement that future generations will command new ways of thinking says something about the minds of those coming after us but nothing about their methods in particular. All it says is that they will use methods which, whatever they may mean to them, are not acceptable to us.

The unknown differs from mind to mind and grows with the mind. At a given moment it has limits, but is there a limit to its growing? As soon as intuitional thought has provided a sound basis for our inquiries we try to exhaust the problems which have come up within the scope of our system. But new intuitions are apt to cause our system to explode and the body of the unknown may grow quicker than the body of our knowledge. This, at least, seems to have been the feeling of many learned men when they confessed to their *docta ignorantia*. It is like racing for a goal which moves away from

us faster than we can run. If there is sense in saying that omniscience is that goal the amoeba has the best chances to win the race because the distance he has to cover is almost infinitely small. There is very little unknown to an amoeba but with man it is quite different.

Our argument has so far resulted in a description of what happens when we start to learn. We have, however, drawn our conclusions from one example only and it may be worth while checking them against at least one more example before we dare to propose that we have met our problem in its typical form.

When the boy we spoke of had become several years older he had another vision which may serve as our second example. Teachers who were enthusiastic about their subject had taught him the amazing history of ancient Greece and, like everyone, he had started to ponder over the incredible fact that so great a variety of political and cultural events could have taken place in so small a country. Suddenly it occurred to him how irrelevant spatial dimensions were with reference to spiritual growth. Was it not possible that future generations would look at the discord of Western Europe with the same eyes as we look at the ancient Greeks? In fact, irrespective of the spatial dimensions the development of the Greek and modern culture seemed to have many features in common. Also the Aegean Sea could be compared with the Atlantic Ocean and the colonies on the other side of it with America. Was it imaginable that modern European culture would degenerate as did the culture of the Greeks? Was it possible that there would be a power ready to play the role of ancient Rome and to build a vast empire on the debris of European culture? Russia seemed to be this power. However, the Russian empire would not last eternally either. There would be chaos again and migration of the peoples and a return of the Middle Ages until, at last, a new culture would emerge comprising the whole of Asia. The peninsula of Western Europe would then be an insignificant annex to the great building just as Greece is nowadays regarded as a small detail within the framework of European culture.

The basic idea underlying this vision is the thought that historical events follow a law of periodicity. Several years later Spengler relied upon the same thesis when he wrote his book about the Decline of the West. There is obviously a long, long way from the immature idea of our adolescent to the elaborate work of Spengler, and the resulting details differ considerably. But this is not the place to evaluate the possible applications of the idea; all we are interested in is knowing what it does to the mind of a person who has it.

What kind of idea is it? Can it be imposed on anybody by means of cogent conclusions? In other words, can it be proved? It cannot without anticipating as correct what has to be proved as correct. We can make the idea plausible by pointing at the congruity of certain facts in ancient and modern history. But facts are data which have been interpreted, and the facts we should refer to in our argument would clearly bear the marks of an interpretation which shows our being affected by the idea we pretend to be striving for. Our proof would not be proceeding along cogent conclusions which start from what we know and drive at what we want to know; it would rather depend on a reciprocal relation between the idea and the facts that bear it out. All we can hope to demonstrate is that the historical data easily yield to an interpretation derived from the idea. But this is an experiment rather than a proof and he who rejects the idea from the beginning would not see the data in the light we want him to see them. Whatever we tell him, his reply would be that we are begging the question.

The theory of a periodicity that can be found in the course of cultural developments is anything but obvious. Even the conception of "culture" is questionable. One may say that there are cultured people but that it does not make sense to speak of a culture as if it were anything detached from the people. Well, this conception has long since been accepted and amalgamated into our historical thinking, and we are no longer aware of entering the grounds of an hypothesis when we speak of it. But to claim with Spengler that a culture has a soul and a lifetime of definite length and that it is subject to predictable vicissitudes may be more than many want to

swallow, although if we take the medicine it will sharpen our eyes for objects we have not seen before. Indeed, if we take the step, the historical facts take on a new meaning as being mutually connected by a functional relation of which we have never been aware and we make a new start in understanding history. But it is a problematical adventure and will remain one even if the time should come for us to take it for granted.

It may be objected that the idea, after all, cannot fall from the blue sky. There must be something in the historical facts which is suggestive of it. As we try to impose an idea on the course of historical events we may find that it can be applied with great or with little success or with no results at all. Consequently, there must be something in the course of historical events which conditions our idea.

Undeniably the idea is conditioned by historical facts but it is not fully determined by them. The condition is that there must be an appreciable number of facts which take on a new meaning if seen in the light of the idea, and this cannot be so unless there is a certain compatibility between the facts and the idea. However, the idea also is something in its own rights, something beyond the facts. Just what does this mean?

The raw material of our ideas is our experience, the contents of which can be considered in terms of objective facts. Obviously all facts we are ever aware of have gained the status of being objective facts through an act of interpretation. We just called the raw material that gains shape in such an act a datum. Now what are the data which underlie our ideas? Are they mere sense perceptions? Or Kant's things in themselves? Or what? The answer is that the data are nothing but facts which become data if focused in the light of a superior idea. However far we go in reducing our sophisticated conceptions to primitive elements of our thinking, we never come across anything which does not already bear the marks of our interpretation; and the theory of the things in themselves, as has often been remarked before, is nothing but a mechanical and futile attempt of negating the conditions of our thinking.

The example we used may provide an illustration. Let us suppose that the ruins of an archaic temple, as compared with

a Gothic structure, serve as one among many data supporting our theory of a periodicity which can be found in history. The datum will become a pertinent fact if we are really able to interpret it in the light of a new idea, showing for instance that a Doric temple played the same role within the framework of the Greek culture as does Gothic architecture within the framework of European culture. But before we ever conceived such ideas the ruins were there, not as data waiting for interpretation but as interpreted facts. There were columns, half destroyed, an ugly sight perhaps, and yet we saw in them all the beauty of an old Greek temple, interpreting the remnants in terms of what we knew about ancient architecture. Before the columns were discovered by people who had some scholarly background, they were known to others who had never heard anything about the culture of the Greeks but were intelligent enough to understand that the broken columns once supported a roof. The background of their interpretation was their idea of a house which produced a very satisfactory explanation and did not leave room for additional questions. We may go further. We may think of those who would not recognize the columns as columns but as pieces of marble which had been worked on by human craft, and of those who would see nothing but stones or stumbling blocks. Below the stage of objective thinking the columns would still be noticed as something to go around or to sit upon or whatever the role may be they play in relation to the needs and actions of a living being. On each of these different levels of understanding the remnants of the temple are veritable facts; they become data for higher interpretation as soon as a mind is able to see them in the light of a higher idea.

It appears that constructive ideas which we apply in organizing data allow us to make cross-cuts through our world on different levels of understanding. We start to learn whenever we rise to a higher plane. The conceptions which establish such a plane of understanding are of our own choosing. Of course, we try to choose them so as to be certain that the light radiating from them will illuminate the greatest possible

number of facts that have been ascertained on a lower level. But this is a matter of experimenting rather than of foresight.

In this hierarchy of ideas it is always possible to descend from the upper to the lower grade by way of deductions. But there is no method helping us to find the way in the opposite direction; only an intuition can lift us up from a lower to a higher plane, and unless we have this intuition we do not even notice an indication pointing to the existence of a higher level.

Facts are settled, data unsettled. It is the function of constructive ideas to make appear as an unsettled datum what before seemed to be a settled fact. They throw a set of question marks into the peaceful world of established opinions and stir the mind contemplating this world into a state of restlessness. They widen the scope of our knowledge by adding to the unknown and setting new standards of verification. They are the troublemakers which prevent us from ever having a rest in our search for the truth. It is because of them that we never stop learning, for we always make new starts of learning.

Once we accept the idea that a culture is an organism subject to certain laws of growth and decline the actual discovery of those laws is not a matter of mere guesswork and experimenting but of conclusive arguments. Whenever, in the course of our searching, we come across propositions that contradict each other only one of them can be true and the other must be wrong and it must be possible to show why the one is right and the other not. The interpretation of all pertinent data is unambiguously determined by the idea which illuminates the data, and the unknown created by that idea is a limited multitude of knowable facts. There can, in our particular case, be only one pattern which characterizes the unfolding of a culture, because a variety of patterns would render absurd the idea of a law that accounts for the pattern. The tragic truth about constructive ideas, however, is that they seem to simplify our picture of the world while, in reality, they make it more and more complicated.

The results derived from our second example serve to confirm our previous findings in every point, and we trust that

we have been able to analyze our problem in its typical features. Summarizing our description we shall say that a new line of thinking and learning is always initiated by an act of creative understanding. In such a moment of intuitional insight a constructive idea is born which, if accepted as meaningful, raises us to a higher level of understanding. From our new vantage point we then discover that facts which seemed explained before stimulate new questions. However, we reject ideas of this sort unless they allow the body of our knowledge to grow organically. If we let them gain power over us they enlarge our world, and, accordingly, the range of our potential knowledge, by new facts which are determinable and deserving our interest. The more constructive ideas we accept, the vaster the realm of that which is unknown to us.

How do we start to learn? Questionings break the habits of our thinking and constructive ideas put us on our way. But how can we have constructive ideas? This still remains unexplained. We have not gone beyond a description of the problem. An analysis of a phenomenon is not its explanation; it may, however, be the first step towards its explanation. At least, negative answers have been given, warning us not to search in the wrong direction. Constructive ideas, so we have seen, can neither be derived from experience nor discovered in an analysis, however minute, of known facts nor arrived at in a chain of logical conclusions. Sometimes analogies will help us to detect constructive ideas. We may tentatively transfer an idea which has proved useful in one branch of our knowledge to another branch and see how far it carries us. Generally speaking there is no method applicable which will cause us to have intuitions. In some ways we can prepare ourselves for them. We improve the chance of having a fruitful idea if we thoroughly examine the ground we suspect to be pregnant with new problems and if we focus the situation with intensity. Also it helps if we keep our judgment in suspense and do not definitely take for granted what, on the surface, seems to be a matter of evidence. But then it will seem that we can do nothing but be on the alert. If we have an intuition at all it will come on a sudden—and yet, as a rule, not quite unex-

pectedly. At least there is something in us to tell us that constructive ideas go through a stage of growing before they enter our consciousness and that they start to make their weight felt even prior to our seeing them clearly before our eyes. Certainly, when they appear, we are at once ready to make an estimate of their importance. Also there is no doubt that every normal person, during his childhood and adolescence, experiences a more or less typical sequence of intuitions; otherwise he could never arrive on a certain average level of education. After all, the occurrence of intuitions does not seem to be entirely incalculable; there is some system in their appearance. When you are about eleven you are bound to grasp the idea of an angle.

It is the function of intuitions to perceive wholes which account for the coherence and meaning of that which otherwise would remain below the threshold of interest and attention.

On the level of instinctive understanding a kind of intuition occurs when the external world takes on the appearance of one of those typical schemes which release instinctive action. A spider, for instance, is certainly unable to register every irrelevant change of its environment in a series of differentiated impressions, let alone emotions—but when a shake of the web occurs the spider behaves as if, in a sudden flash of insight, it could borrow one, just one, of those impressions which, in their continuity, can be felt only by a superior mind. Insects, in all probability, receive as much information about the outside world as it is necessary for them to have in order to survive, and one could imagine that their contacts with the world are practically confined to a limited set of signals which reach them with interruptions and have the characteristics of intuitions.

On the level of subjective understanding intuitions have the power to establish coherence and balance among our feelings and to coordinate our tendencies. The stream of impressions we have in this stage is more or less constant, and ordinarily we let our emotions drift in it unchecked, aimlessly shifting and yielding to every minor disturbance. However, there occur moments of clairvoyance which enhance the significance of a

situation and make us penetrate it with surprising sagacity. In such a case our sentiments coalesce in a whole which accentuates every detail involved. We are put into the midst of things, able to feel their pulse and to evaluate them in their own rights. That focal point of our awareness of limitations and dissatisfactions which is called our ego temporarily vanishes into oblivion. We are never less selfish than when we are creative.

An intuition of this kind may give us superiority in solving a practical problem, or it may be pregnant with constructive ideas if analyzed in the light of objective thought; it may inspire works of art if it can be expressed in symbolic terms, or we may simply enjoy it in one of those precious ecstasies which make life worth living. It is a transient feeling, perhaps no more than a fugitive hunch, but it deepens our awareness of what life can be if we see the promises it holds for us. The same set of circumstances can fill us with very different degrees of satisfaction depending on our preparedness to rise to the occasion. Intuitions set standards by which we measure the depth of our experience. They open our eyes for model situations which we shall try to discover whenever they occur or to bring about wherever they should prevail. The oftener it happens in our lives that we have that experience of aesthetic intuitions which fall upon us as gifts from heaven, the more we are likely to be integrated persons, able to see everything in its right proportion.

On the level of objective understanding impressions crystallize into a coherent picture of an outside world. Its emancipation is the work of constructive ideas which help us to catch isolated bits of sense information in a system of meanings. How do we get those constructive ideas? We have seen that they cannot be derived from experience nor drawn from logical conclusions. They rather take possession of us in a sudden inspiration, enabling us to interpret impressions as facts and to question the facts again and to reinterpret them on ever higher planes of understanding. What, we wonder, are those constructive ideas?

They may be called categories of our experience because

they seem to make it possible for us to establish a rational order of meaningful objects by using the raw material either of subjective impressions or else of data the fixed meaning of which has temporarily been suspended. The findings of Kant may be expected to help us at this point but, unfortunately, they do not. He has examined the laws of human thought but not those of human thinking. His categories are logical abstractions drawn from the product of thinking rather than constituting its process. Will his categoric imperative ever tell us what to do? It allows us to ascertain whether a certain action is good but it does not tell us how to plan action which can be known as good. Likewise, Kant's categories lay bare the logical organization of experience that we have become aware of but they do not explain how we start to learn. Kant demonstrates that experience cannot be had unless it complies with the general laws of our thinking but he fails to make clear how human minds grow to have experiences of more and more complicated nature.

Why do different persons record the same circumstances in different ways? How do we select the impressions on which we focus our attention and how do we pick the questions which we are concerned to have answered? What are the vital forces that bias our lines of thinking and push human minds to ever richer manifestations of their cognitive power? Kant would have assumed that these are merely psychological questions and would have defied their epistemological importance because he did not recognize that the laws of thinking are capable of growth and refinement in accordance with the progress of human thought. This is not meant to be a criticism of what Kant has actually achieved but it indicates that he left something for us to do.

So we are looking for the categories of our verifiable experience—and, of course, all of our experience is principally verifiable in the sense that no limits are set to our attempting to state it in objective terms. If we take for granted that the experiences accessible to an educated and ingenious person can be of higher order than those of one more primitive, we will expect that the categories embracing such experiences are

numerous and more specific than any derived from the logic of Aristotle.

The only way to a solution seems to be the assumption that, whenever we have a constructive idea, there has been growing in us a disposition of applying a new pattern which serves as a category making possible a new type of experiences. This pattern in itself, if we are aware of it at all, is felt as an obscure desire which makes us look for something although we could not tell for what. If, however, circumstances furnish the outside data to which, in this condition, we are allergic, pattern and data combine in a picture or an idea which falls upon us with the suddenness of an intuition and opens avenues to further conceptions of the same order.

The relation between pattern and picture may be compared to the relation between hunger and food although this example is satisfactory only to a certain extent. Hunger is something felt as very real even when the thought of food is absent. In itself it is not the visualization of an object nor does it teach a living being what food is as long as anything which may be known as food is beyond imagination. During the first months of his life an infant, however desirous of being fed, does not in the slightest visualize the stuff he is craving because his hunger activates his instinct rather than his thinking. Later, in a second stage, he learns to appreciate the food value of certain things, and eventually, in a third stage, his preference will foster the ability of recognizing a group of objects as food. Thus hunger gradually develops the tendency towards a classification according to which some objects fall under the category of food while others do not, and there is no food in the world unless there are living beings feeling hungry.

In a figurative sense we develop a feeling of hunger not only for food but for ideas that deepen our understanding of the world. To live comfortably and to eat well is truly not all man is striving for, and utility is not the measure of his deepest concerns. His purposes transcend the sphere of profane interests, and the more they do the more is he apt to unfold new patterns of thinking.

These patterns correspond to the schemes which in the first

stage release instinctive actions and also to the model situations which in the second stage make evaluations possible. On each of the three levels the policy-making forces that dominate life seem to effect the proper channels through which to make contacts with what, in the third stage, is known as the outside world. If this world is understood as the principle that conditions the will power of life, those schemes, model situations, and patterns of objective thinking are not warnings which indicate that we are surrounded by obstacles; they are rather signals that point the direction in which to go. They open opportunities and make life richer.

How do we have those patterns which enable us to interpret experiences on ever higher levels of objective thought? How are they felt and what do they mean to us before they enlighten us in the inspiration of a constructive idea? What, in fact, gives us the right to assume that they exist?

We are aware of their existence in about the same way we are conscious of a datum which we fail to recall although we try hard. They bother us as a new province of the unknown which is being called into existence and makes its problematic nature felt. They put under pressure that sense of responsibility in us which tells us by daytime what we should notice or think about and at night what we should dream. They make us sensitive and arouse our expectation. They give a focal point to our attention and nourishment to our imagination until faint hunches can gain the power of vivid images and the creative process of pouring contents into patterns is well under way. This is how we start to learn.

If we could, by way of experiment, successfully wipe out all traces of experience with which our minds are loaded, and bring about a condition of complete amnesia, our minds would not be blank and we would be very far from being idiots or individuals without personality. There would be left in us a disposition to apply patterns of thought which are by no means of so general a nature as Kant's categories but very articulate and specific and adapted to all types of experience. Of course, such a case of complete amnesia would be extraordinary, but we keep forgetting special experiences all the time

and still they do something to us which is permanent and once we have had them we are able to have them again.

It may be presumed that there is preserved in every one of the more complicated patterns, some of the experience obtained on lower levels of understanding. Constructive ideas constitute new types of experience but the new experiences also tend to become elements constitutive of higher constructive ideas. This reciprocal relationship is analogous to the give and take which characterizes the relation between a person and his environment. When we have an intuition we might express ourselves about it by saying that we are exposing an ability to question established facts and to incorporate them as data into a higher order of understanding. We might also say that the established facts themselves have become active in the depth of our minds and disintegrated to the status of data which offer themselves to higher possibilities of interpretation. If we accept the latter formulation it would mean that all experience is simultaneously of a static, or intellectual, and of a dynamic, or volitional, nature. Being static, it can be described in objective terms and can be known. Being dynamic, it coerces and conditions our minds even when we do not think of it, and wants to be remembered whenever it may be useful in a given situation. It may, in this respect, be compared to those schemes that release instinctive action.

Take the conception of culture or that of two intersecting lines. Being experiences of intellectual character, both conceptions can be defined and explained until everything about them seems settled. Being experiences of volitional character, however, they are apt to create further disturbances which stimulate our imagination and may throw us back into the stage of uncertainty. They have a tendency to associate themselves with other conceptions in patterns which are surprising and give our thinking a new turn. How urgently those disturbances are felt depends on the general condition of our mind. There are periods in which we are satisfied with our intellectual gains and like to relax. There are also times of tension and unrest when we want to force the fetters of our thinking habits and are looking for something novel. The find-

ing of constructive ideas fills us with a happiness than which there is no greater, and there is something in us that stirs us to strive for this happiness. We are anxious to learn, particularly those of us who are young or feel young, and we are even ready to revise the gains of our knowledge and to start it all over again whenever the opportunity opens to see familiar facts in a new light.

A baby who blissfully exercises his muscles in the crib methodically acquires skills which he will soon need badly although he does not know it yet. Similarly there is method in our exercising the faculties of our thinking even when we have no way of knowing what the final results will be. While we do not clearly see the goal before our eyes we obviously have some control over the progress of our intellectual adventures and follow certain directions as if the particles of raw material which are furnished by former experience were floating in the streamlines of a magnetic field. This very fact sometimes makes it hard for us to take up, without prejudice and hesitancy, lines of thinking that are proposed by another thinker; we might be in fear of losing our orientation and of being impressed by results that are beyond our control.

Aspiring towards greater abundance of knowledge we sense the value of objectives before we discern their contours and details, and we know how to select pertinent data. As long as our unrestrained imagination wanders about in a chaotic infinitude of possibilities the results will be fugitive as if we were dreaming; nothing will last, nothing will be confirmed, nothing will gain significance. But when we are seriously set for doing a constructive piece of thinking we appear most personal in choosing our objects and taking responsibility for our findings. In fact, the organization of our knowledge and the strategy we use in acquiring new knowledge reveals our personalities, and the force which causes us to be what we are is the same that causes us to think what we think and to learn what we learn.

Inasmuch as the volitional character of our experience prepares us for the anticipation and responsible acceptance of new types of experience, we are entitled to assert that the sig-

nals which guide us on our way to new insights are symptoms of that faculty which makes man a creator. But the same sense of responsibility which drives us to be productive also accounts for the fact that we take the product of our thinking for something which has reality and the power of being true. What, at first sight, may seem to be a fancy begins to exist in its own rights and to claim that it be understood correctly. Having an intuition we are at the same time active and passive, responsible and depending, and it is this paradoxical character of our productive ideas which will be remembered when we say that they are given birth in an act of creative understanding. They rightly belong to the sphere of our objective thinking as well as to the higher plane of our productivity.

The ultimate test of our constructive ideas is the way they serve to model and remodel our world until it appears adjustable to the scheme of our final ends. Everyone has his own conception of happiness and will interpret his world so as to get an optimum of satisfaction out of it. There are as many worlds as there are individual conceptions of happiness although it must be kept in mind that what we have in common shapes our modes of understanding more efficiently than what we have not. Of course, we are not all living in a world which makes us happy, but we are never ready to understand the world in terms that would preclude the pursuit of happiness.

The objection may be made that the scientific explanation of natural laws is in no way dependent upon anybody's individual notions of happiness, and that the satisfaction we get out of the accomplishments of science are no more than accidental. But there are, to begin with, no final accomplishments in science. Euclidean geometry appears in a new light when non-Euclidean geometries are considered and Einstein beats Newton. The atom is no longer what Democritus thought it was and the ether no longer what Maxwell thought it was. The average person is content if he can grasp some of the results which are offered in scientific books. Those deeply concerned with the progress of science know that there are no definite results and that our methods of co-ordinating available data are an expression of personal aspirations. They do not

forget that the fundamentals on which we build our systems are problematic and that the constructs we use in erecting the building are of our own choosing.

Knowledge obtained by way of inference is encyclopaedic and the property of all who are intelligent enough to take possession of it. But the impulses that lift us up to specific planes of understanding are symptoms of an anxiety which drives us to master the problem "world" in accordance with standards set by our final ends. Of course, those indebted to the same cultural background pool their energies and organize their activities in furthering that great experiment which is called science. But it is individuals who have a personal responsibility for the progress, and in taking the lead they try to subject the world to terms which suit their patterns of thinking and to eliminate the danger of the irrational. They mould the world into a safe place, safe not in the sense that happiness can be degraded to a matter of cheap pleasure but in the sense that human thinking can make the world its home and proceed along lines favorable to the general scheme of our final ends.

## MAN AND HIS FELLOW MEN

**O**UR knowledge maps our world in objective fashion. In an act of creative understanding we develop the method of projection which we make use of as we transfer actual experience into the symbols of this map. The entries we make on the map are acts of objective understanding. Creative understanding discovers life. Objective understanding pictures life as reality. In this picture we find established the I-It relation which sets the world over against us as a manifold of objects to be looked at in a detached fashion. There are all sorts of objects with which we come to grips in acquiring knowledge, for instance, physical objects, chemical reactions, historical data, cultural developments. They all belong to the world in which we live. There is, however, a class of objects which concerns us more than any other class: our fellow men.

Our fellow men are actually objects of our knowledge. There is an I-It relation between them and us. We look at them in an objective fashion, we even study them scientifically. Psychology and sociology are two branches of science which grow out of this study. They explain to us what men are and how they live together. The knowledge we gain in our psychological and sociological research is not only theoretical, it is applicable. We apply it in our conscious effort to improve interhuman relations. In particular, social workers, politicians, and educators who make it a profession to better those relations will be greatly benefited by the results of psychology and sociology.

The history of our relations to our fellow men is, of course, a history of adjustments. We adjust ourselves to the living conditions which the society of human beings has arranged for us. We also adjust the living conditions, if we can, in accordance with our needs and wishes. In order to make someone a useful member of the human society we transplant him into an environment in which his character will appear at its best. We may also teach him how to make the best of the environment in which he is living. We may change either the man or the conditions. Social workers and politicians put more emphasis on a change of the conditions; educators put more

emphasis on a change in the person. The change of living conditions is a matter of planning. It calls for an objective understanding of all the factors involved in a given situation. If, however, we want to educate a person, more is required than the scientific approach of a keen intellect. In our dealings with our fellow men, the I-Thou relation is even more important than the I-It relation. There has been a distinct trend in more recent times towards the elimination of the teacher. The idea now is to have the child taught by the educational material which he finds in his environment. However, the teacher has not really disappeared. He is, instead, active behind the scene. How else would it be possible to provide the artificial environment which a child needs for the individual development of his gifts? In addition, a child has to learn many things which he will not be taught by toys and books. Education, based on the principle of having the job done by nature, is efficient but not sufficient. Psychology and sociology are bound to play an auxiliary role rather than a dominant part in the field of education.

The psychologist tries to be a scientist. As such, he is a determinist, searching for explanations. Psychological explanations turn out to be apologies. *Tout comprendre c'est tout pardonner*. The more fully a judge understands the motives of a culprit, the harder will he find it to condemn him. A teacher, however, spoils everything if he forgives everything. He should understand his pupil not only in terms of facts which belong to the past but also in terms of demands which shape the future. The past is an open book; the future is intangible. The book of the future cannot be opened by the key of figures and statistics. The impact of the future strikes everyone in terms of obligations which bring into existence the idea of a better self. The problem of the educator is to control the momentum of powers which are active in shaping the better selves of other persons. This is an axiological problem.

Philosophy is both a scientific and a normative discipline. As a scientific discipline it lays the foundations of scientific methods which explain the factors of the past. As a normative discipline it lays the foundations of skills and arts which shape

the future. Education is an art, depending more on norms than on explanations. As an artist must know his raw material the educator must know man, but the problem of man can never be exhausted by scientific methods. They are built on premises which are as variable as the convictions of man. Behind every scientific statement is a set of norms which are taken for granted by the scientist, but challenged by the philosopher. The psychologist, for instance, postulates an imaginary average individual who copes with average problems in an average fashion. He compares every person with this individual and rates him accordingly. Inherent in every psychological statement is the expectation of what the examined person should be in terms of average requirements. Likewise inherent in every sociological statement is the expectation of what the living conditions should be in terms of average conditions. This is, however, not the way a person rates himself. He cares little about these average standards. He measures himself against his better self which has its own pattern, just as he measures his own living conditions against ideal conditions of his own pattern. The original conceptions of every individual as he faces his future are beyond the control of the psychologist. It is, however, not beyond the responsibility of the educator to influence those conceptions. Responsibility for another person often gains strength from a better understanding, but it does not grow out of an understanding, at least not out of an objective understanding. Wherever, in education, undue emphasis is laid on a perfect understanding, the danger of resignation becomes imminent. The teacher should see the relation between responsibility and understanding in its proper light.

Objective understanding leads to an analysis of individualities as they have revealed themselves in a chain of former decisions. This is all a psychologist will ask for. The task of the teacher, however, is to further the development of the personalities of persons who will be able to face decisions in the future. Personality grows under the pressure of obligations. The educator is the living representative of these obligations. He may be inclined to live up to his task by giving lectures

on moral issues, but this again is merely a scientific method of solving educational problems. The Bible is full of wisdom regarding ethical questions. In addition, many philosophers have explained their thoughts about ethics in systems which can be lectured upon at any time and before any audience. The question remains of whether the lecture reaches the audience and meets the demands of the present situation. The scientific teaching of methods does not necessarily entail the conscientious application of these methods. Teaching ethics scientifically is not a safe way of putting the pupil under obligation.

We put other persons under obligation by doing something for them. At least, this is one way of doing it. Parents, for instance, do so much for their children that the obligation growing out of this fact becomes an ethical impulse of great force. Teachers, however, have less of a chance to stand this test. Also, it is obvious that this sort of obligation does not stimulate more virtues than gratitude unless other factors are brought into play. There is another way of putting a person under obligation. If we are able to guess what he would like to be in his secret dreams of a better self, this knowledge of ours will be an effective incentive for him to develop his better self. Many young people suffer from the feeling that they are not understood. What they really mean is that their intentions and possibilities are not understood. They need some encouragement on their way towards the personal goal which they see before their eyes and they slacken easily unless they find a friend who understands them. The difficulty seems to be that something should be understood which nowhere really exists. A psychologist is able to analyze an individuality and to speak about it in factual terms. The better self, however, is not a fact; it does not even exist in the dreams of the person concerned except as a system of demands which are dimly felt. Indeed, the better self is no possible object for objective understanding. It comes into being through the very act of being understood. That is to say that it is created in an act of creative understanding. A person becomes aware of his better self as he comes to grips with his ultimate ends in an act of creative

understanding. Somehow it must be that another person can participate in this event. In all his creative work man assumes the presence of an ideal spectator with whom he may share the meaning of the work. It is a tremendous help if this spectator is real. The teacher is supposed to be even of more help than a spectator. He does not only watch the work which comes into being; he seems to know in advance what the next step should be. He is not following the process with surprise but with serene expectation. The pupil feels that he should live up to this anticipation. He may not be told explicitly what is expected from him; words may not intervene. But there is a tension between teacher and pupil which makes a drama between the two of what seems to be the development of only one of them. The development of the pupil is no longer a private affair. The teacher is present as the representative of the human society which wants the pupil to give his best for the sake of many.

If we personify the final ends as a group of masters, we may say they send out the novice to explore the world. He comes back with tables on which he has written down his findings. The masters will tell him that a person such as he could have done better. They will tell him that he has taken for granted assumptions which he should not have taken for granted. The teacher, if present, will interpret this message. The novice will break the tables and go out again in order to cast them anew. If he is the person who remains young as the years go by he will have many such meetings. They are the revolutionary moments in his life. Man is both conservative and revolutionary. He needs a creed; he needs a body of unquestioned values and established knowledge to cling to. He needs habits and regular hours, repetition and familiarity. But once in a while he will be overcome by revolutionary moments which challenge the regularity of his actions and the safety of his thoughts. In an act of creative understanding he will discover new avenues and new possibilities. It is good for him if in such moments of growth he has a friend at his side who encourages him to face the issues.

The meaning of human actions and thoughts is authorized

by those who share the ultimate ends. The mere fact that human actions and thoughts are meaningful refers to a community which constitutes the categories of right and wrong. Descartes should have started: *Cogito, ergo sumus*. Solipsism is not only the annihilation of all fellow beings, it is also the annihilation of one's self. Thinking and acting cannot make progress in a vacuum. They call for a response. A book is not a book unless it is understood by somebody; a work of art is not a work of art unless it speaks to somebody. The development of a personality takes place in an atmosphere which is created and shared by many. The teacher is the exponent of such an atmosphere. He is the disciplinarian among those who share it.

Sharing final ends engenders solidarity. The solidarity between teacher and pupil, like any example of solidarity, bears out the efficacy of superindividual demands in individuals and is based on instincts which can be traced back into the realm of animals. However, the solidarity between teacher and pupil is of a special type. As a rule, the members of a group who live in solidarity are interchangeable. Solidarity is a stimulus that the right thing should be done and the right thought be thought for the sake of the group. It is of minor importance who in the group does it as long as it is done. Accomplishments go to the credit of the group which works as a team. But a teacher and his pupil do not do team work together and their relation cannot be reversed. The teacher will not take over the duties of his pupil. If he did he would spoil his work. He will rather wait for the pupil to do his duty, and this may take time. It has rightly been said that the most difficult art of a teacher is waiting. In other fields, good timing is essential for him who wants to see achievements. The teacher has to refrain from his natural desire to set the clock for the achievements he would like to see. This is so because, in education, the achievements of the pupil are not, in themselves, the purpose of the process. They are valuable only as promises for the future. What matters is the development of the pupil. The teacher feels that the pupil, in due time, should take up his

responsibilities. Education does not solve today's problems; it solves tomorrow's problems. It is not action but preparation for action. It does not serve the present need but anticipates the future need. The achievements of today are interpreted as guarantees for tomorrow.

The eyes of the teacher are focused upon the anticipated needs which may arise in an environment congenial to the better self of the pupil. At least, it is his noblest task to prepare the pupil for these needs. It is an open question whether anybody is ever able to interpret his environment in a way which allows for an unrestricted development of his better self. Would it mean harmony or ruin if everybody were exactly what he wants to be in his best moments? In other words: is man good or bad? Rousseau believes that man is good. Pestalozzi adds: "If he is not, somebody must have barred the way on which he wanted to be good." Many great pedagogues have clung to this optimistic view. They felt that education runs across embarrassing problems as soon as that optimism is abandoned. In fact, education is degraded to domestication to the extent to which man is believed to be bad, and mechanical drill is to be used in order to condition man so that he will comply with demands which are imperative in any human society and yet not a genuine concern of his. May those be right who assert that the methods of domestication can be reduced to a minimum. If man is not altogether bad, he certainly is weak. He is too weak to live up to the moral issues which are involved in practically every acquisition of skill or knowledge. He will assimilate many skills only to the extent in which they are expected to be useful equipment in the struggle for adequate living conditions. But often he will miss the best he can get out of every skill; often he will forget that skills imply responsibilities on which the growth of personality depends. As long as there is no real gain for the personality of the pupil, education is no more than training.

Education, in its proper sense, is more than necessary domestication or useful training. It is interpretation of the demands which stir the responsibility of a person in view of his final

ends. What is it the teacher should have in mind all the time? In its last analysis, it is not the present or future happiness of the pupil or of those with whom the pupil is going to live. It is rather the pupil's loyalty to his final ends or, which is the same, the pupil's solidarity with the imaginary group which shares his final ends. The essence of human life is not the conservation and well-being of individuals or groups. Human life is essentially obligation. It is the response to a call. In the pedagogical situation which is supposed to develop between teacher and pupil the intensity of the call appears fortified and its interpretation facilitated. The teacher understands the pupil in terms of demands which stimulate the growth of the pupil's better self, and the pupil, in turn, feels that he is understood in a way which takes into account his claim on prospective achievements. An inner voice says to the pupil: you should live up to your better self. The presence of the teacher intimates: you are expected to live up to your better self. Pressure is added if a person knows he is expected to do what he ought to do.

Generally speaking, expectation is one of the springs which keep life going. Whether it has its source in causal or final thinking, it has a most important function. In his expectation, a person anticipates the reality of whatever the future may conceal. He keeps acting because he expects to meet with success, and he does not act unless he expects to meet with success. He keeps asking questions because he expects to get answers, and he does not ask questions unless he expects to get answers. He keeps seeking because he expects to find, and he does not seek unless he expects to find. His every venture is warranted by the expectation of its outcome. In some ways, expectation is akin to, and supported by, imagination. Both functions are anticipations of possible events. There is, however, a great difference between the two. Imagination anticipates possible events in objective pictures which, more often than not, remain in the stage of day-dreams. In such dreams we may for instance fancy many lives for which, in actuality, we should never take responsibility. Imagination is contemplative. Expec-

tation, on the contrary, is an active element. It is closely connected with reality and actuality. The expectation which has its source in causal thinking longs for verification in the real world. The expectation which has its source in final thinking urges materialization in actual life. This pressure is the more remarkable as the anticipated object is not necessarily apprehended as a picture of distinct contours. Imagination is the stronger the clearer the picture it represents. Expectation can exert very strong pressure while the person exposed to this pressure hardly knows in detail what it is he expects. Our striving for the final ends creates a kind of expectation which is essentially pressure while the object on which the expectation is fixed is only accidental. Because of this fact, we are prepared for turns in our life which we are mature enough to meet, and ready to convert accidents into destiny. It has been said: "What life has promised us, let us keep it to life." We live in a creative way if the expectation of events to come stimulates our bringing about these events.

All this does not seem to be applicable to the pedagogical situation in which the pupil, rather than expecting something, is expected to do something. The educator expects the pupil to live up to his final ends. How does the expectation of the educator affect the pupil? Actually, the pressure may be the same whether a person expects something or is expected to do something. To be counted upon inflicts an urgent obligation. Otherwise education in its very best sense could never meet with success. The superindividual character of our final ends becomes apparent in the demands which others put upon us if we feel that we can identify ourselves with those demands. It is irrelevant who the person is who stands up for the realization of the final ends as long as we feel they are our final ends. It is gratifying to know that the realization of our ultimate ends is expected by others. The dignity of our final ends becomes much more impressive if we know that we are not the only ones to stand for them and that there are those with whom we can communicate about them. For this is the test which shows that our final ends have real meaning. It is

neither necessary nor desirable that the communication about our final ends is brought about by many words. A tacit understanding will do better justice to the intangible values involved. At any rate, it is not possible to be explicit about the background of those obligations which the pupil is ready to accept as final.

The question remains as to how the teacher, or any other person for that matter, is able to understand the better self of another person. How is anybody able to participate, by way of expectation, in the demands which are the responsibility of somebody else? The probable answer is that this is not possible without restrictions. The actual understanding between teacher and pupil does not transcend the range in which their better selves are identical. The rest is illusion. The teacher understands the pupil in terms of his own better self. This does not necessarily mean that he wants to see his own image embodied in the pupil or that he wants the pupil to be in a perfect way what he, the teacher, represents in an imperfect way. He will rather take into account all he knows objectively about the individuality of his pupil. Every artist is aware of the limitations imposed on him by the nature of the material in which he is working. So the teacher who, in some sense, is an artist. But whenever he tries to exhaust the possibilities of his material (that is, of his pupil), in a creative way, his expectations will follow lines of thinking which are congruous with the pattern of his own better self. Nobody will be supposed to affirm purposes which are not in line with his own ends. The difference which exists between two individualities is not suspended in the pedagogical situation. This is one of the reasons why the possible success of education is limited. Temporarily the difference between the two may be forgotten or overcome by that which they have in common. They may even believe they understand each other where they actually misunderstand. In education not everything is planning. Much is left to mere chance. Misunderstandings which are beyond control and not even noticed may be beneficial as well as detrimental. Illusions may become a big factor. But the basic difference between two

individuals in general and two generations in particular is never rescinded and will never cease to be a menace to every educational effort. To feel responsible for another person as the teacher does will not of necessity induce this person to comply with all demands emanating from the teacher's responsibility. Sometimes one should be given credit for having wanted the best. The outcome may be dubious. *Sunt certi denique fines.*

## CONCLUSION

**S**UMMARIZING some of the results which we have tried to elaborate, we may draw the following conclusions:

Man's world becomes meaningful as he acts on it. It has as many features as he has reactions, and he comprehends it in factual terms only after having come to grips with it in terms of emotions and decisions. If this is not strictly traceable in the case of every minor object it applies to the way our interest in a certain class of objects is originally aroused, and our approach to them found. Events are not met nor are facts recognized unless they offer an opportunity of being interpreted in terms of relations which, in their last analysis, serve or confirm our ultimate ends. Intentions are prior to thoughts, decisions prior to insights. There is a background of evaluations behind every recognized fact. The reality of meaningful objects is our life, visualized as an idea. We expect that the world as idea is rational and that its problems can be exhausted by intelligent analysis. But this is a postulate rather than a fact. It is not the condition of the world but a responsibility of ours. What we really expect is that the world as idea will turn out to be the theater in which the pursuit of our final ends will be justifiable, and with this expectation in the back of our mind we formulate the problems in which we take a genuine interest. We are neither ready to accept a question as relevant nor its answer as meaningful unless it fits the scheme of meanings which objectify the justification of our best intentions. In this sense, the rationality of the world mirrors our confidence in our ultimate ends. The system of our knowledge affords means of making this confidence explicit and of sharing it with others. We seek ways of communication with those with whom we share our final ends because they are the ones to give us absolution. Their consent is our justification, making our cause the cause of many and emphasizing its superindividual character. The forum which is to pass judgment on our cause may be in existence or it may be an imaginary group. Anyway, thinking is a dialogue, and significance puts more than one person under obligation.

The answer to the old controversy between realism and idealism is perhaps that man's objectivity is superindividual and yet not impersonal. It is superindividual in that objective statements put obligation on many. It is personal in that this obligation, in its last analysis, is not due to any compulsion from outside but to necessities originating in man's personal responsibility. Man faces a world which seems incongruous with his personal needs; and yet, every genuine difficulty in it has its proper solution and every question its proper answer. Man takes his world not for a *fait accompli* but for a task. He handles the difficulties he encounters with a courage which could not be greater if the rationality of the world and the solvability of its problems were his arrangement. They are in a way. Doesn't he make plans and decisions which fit real situations? Doesn't he produce schemes of questions which find their answers in reality? Not only does he seem to be engaged in activities which change the world; he seems to organize his environment in a way which makes it possible for him to solve its problems. What he actually does is to copy unconsciously the organization which manifests itself in his ultimate duties and beliefs. He is able to organize because he is organized. He projects his inner organization into his evaluations and justifies his evaluations in his ways of understanding the world. He is able to create because he is a creature. Created as a being which is determined by final ends, he creates the idea of a world which is the virtual scene for the accomplishments of his final ends. Everything which has weight in a man's life or meaning in his thinking derives its structure from his final ends. In this sense, the ends are not only final but, at the same time, primordial. Striving is prior to suffering, responsibility prior to experience. It is true that our responsibilities unfold as response to actual experience and that conscience is a matter of training. Our eyes must also be trained before they present correct pictures. Still we cannot learn how to see unless we have the organ for it. We cannot learn how to take up responsibility unless we are sensitive to calls for duty. Personality is not a dress ready to wear. It is dynamic development.

He who overestimates the intellectual functions will be in-

clined to think that the questions we raise determine the scope of our understanding which, in turn, determines the potential situations which we are able to meet. If we follow this line of thinking, the potential situations will be responsible for our potential decisions which will establish the habit of certain evaluations. According to these evaluations we shall shape our obligations which lead to our final ends. This line of thinking will, however, be abandoned as soon as we realize that the intellect is a good servant but a bad master. The order should be reversed. Final ends are felt as obligations which determine certain evaluations and accordingly decisions. Potential decisions are responsible for the situations we are able to meet, and potential situations for the scope of our knowledge which, in turn, stimulates our questions.

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