Chapter Seven

The Origin of Doubt

Experience or Concept

Our argument may be completed by reviewing the diverse conclusions at which we have arrived, relating these to one another, and demonstrating their consistency and complementarity. Such a synopsis will be all the more useful if it examines particularly some of the concepts that have run like threads through all the argument, appearing here and there in an exceptionally important pattern, disappearing in the interval, so as to make it difficult to trace the connection. Taken as a whole, our argument must present a consistent and responsible view of human nature. If theory fails to coincide with the habits of common sense, such discrepancy is not surprising and ought not overly disconcert us. Common sense, after all, represents the end product of a long series of intellectual compromises. These compromises must be respected on account of the pragmatic attainment that they represent, yet we are in no sense constrained to accept them uncritically. It is also inevitable that if some problems are resolved, others will appear in their stead, created as it were as by-products of the very process of resolving the old ones. A life devoid of intellectual problems is within the reach only of the divine or of the child-like mind. Our argument will be more convincing if we no longer seek to resolve problems but merely to present them.

Perhaps as valuable as the solution to problems if not more so would be our ability to live and work in the shade of their uncertainty.

Inevitably investigations such as ours must find their point of beginning in presuppositions of thought. Such presuppositions have traditionally been called 'first principles', or 'reality'. Our thoughts are evidently organically interrelated. They spring from a specific intellectual disposition; they leave behind an altered intellectual environment. By virtue of their implications upon one another, thoughts arrange themselves into hierarchical order. The evident implications that bind thoughts to one another have led to the belief that some thoughts should be prior to others and that these prior thoughts should control those which follow them. This assumption is valid both in theory and in practice. Hence it is the tacit assumption of all argument that to arrive at truth and certainty one must avail himself of impeccable first principles. Then uncertainty and error, if they surreptitiously crept into the argument, might be removed by retracing the questionable thought back to a reliable beginning. To relate a conclusion to its premises is an active process requiring skill and discretion. Such reductions of thought to its principles may be repeated many times as an exercise until the implications and roots of our ideas are fully exposed:

Such considerations fly in the face of the general conviction that we must not trust the power of thought, because thought is deceptive, and will likely as not make what is real seem incredible, and what is implausible, likely. This deep-seated suspicion of thought insists that we must return to nature, and that experience rather than cogitation is the source of truth. Implicit in this view is the notion that we can rely upon nature without resorting to reason. It is implied that our apprehension of nature is prior to logical thought. Empiricism must beware lest it lapse into the praise of unreason. To an extent such depreciation of logic seems warranted, particularly if, on a superficial plane, logic is accepted as a mere manipulation of propositions. If, however, reason is considered not only that faculty of thought that relates propositions to one another, but also in a more general way the ability to recognize, to designate, to describe, and to discriminate, then it might well be said that reason entered into all of our apperceptions, and that it was the very ingredient of empirical observation. Such a definition of reason would be more convincing.

So long as our thoughts dwell in one mind and have bearing and influence upon one another, it is inevitable that some considerations should be dominant and others subservient,

and it is not only possible but indeed necessary that we should search for the controlling ideas as rules of procedure and as foundations upon which our thought might build. Modern scientific and historical research does not usually respect such principles with explicit analysis. Such professional denials must not be construed to mean that the principles do not exist or that they are meaningless. On the contrary, the avoidance of logical analysis is evidence that first principles are assumed to be so certain and indisputable that their criticism is unnecessary. Even their explicit expression seems superfluous. During the Middle Ages such a reliable foundation was thought to exist in theological certainties. In our day such theological presuppositions have been replaced with those of physical science. Men have come to believe that if only they might ascertain with certainty the qualities of time, of space, of matter, of energy, radiation or such, that they would then be able to construe cohesive, comprehensive, and unshakeable explanations of reality. The prospect is indeed attractive and many eminent ~~men~~ minds have devoted their intellectual energies to its realization.

Consequently whenever the incongruities of common notions of reality are pointed out, we tend to refer to the esoteric theories of physics and mathematics in the belief that these

in fact reconcile the inadequacies of common sense. Unfortunately, few individuals are sufficiently acquainted with these theories to permit themselves a judgment of their own. Nonetheless, two telling observations must be made concerning the reliance upon such theories. In the first place, the theories themselves appear to be in a continuing process of change, so that if a definite theory of reality had been discovered, its formulation would be a very recent development and hardly anyone would have had occasion to recognize it as such. In the second place, physical theories that purport to explain reality are understood by very few men indeed; to practical purposes, they are incomprehensible to the vast majority of men. It is, however, not reasonable that reality should be recognized only by a few. To put one's faith in the formulas of mathematics and physics without being able oneself to derive and to manipulate them is to permit faith to usurp the function of reason.

A vast amount of labor has been expended in this attempt to create a consistent and compelling interpretation of the physical world. However, the paths that at one time or another seem to point directly to the desired revelation, invariably lead those that follow them on a long and apparently unending journey. Many a contemporary scientist must harbor the suspicion that the search for reality, which is purportedly the primary

task of so-called natural philosophy, has taken a turn away from its original goal and seems to be leading us disappointed in other directions. Under the circumstances, it is perhaps not unreasonable to remind ourselves once more of that original purpose; reality requires to be defined, or if it be undefinable, that undefinability requires definition.

The evasiveness with which this problem is treated is in itself instructive. Sometimes it is assumed that the definition of reality was possessed already; at other times it is expected promptly to be produced by some scientific investigation or other. When disappointment supervenes, the problem of reality is rejected as a useless verbal quibble. Yet we need only reflect upon the activity of thinking to recognize that by whatever methods this problem is treated, whether it is denied, abandoned, or nursed to logical maturity, there remains as a functional basis of our thought some characteristic that deserves the name reality or its equivalent. In other words, the very act of thinking requires implicit assumptions concerning what is valid. We deceive ourselves when we argue that such presuppositions should be scientific. That assumption is absurd, if only because few educated persons have a sufficiently intimate acquaintance with science to rely upon scientific tenets in their thought. Moreover, such presuppositions as are im-

plicit in public and private thinking are a long way from being provable by any scientific method. When examined closely, theoretical science, physics, chemistry, or mathematics, seems rather to lead to a relaxation and dissolution of traditionally accepted standards of thought.

The first principles upon which all popular arguments rely are not only independent of scientific investigation, they are probably not even compatible with rigorous scientific theory. On the contrary, such presuppositions are more suitably called the principles of common sense, and being implicit in everyone's thought they remain largely unformed and inchoate. If we were pressed for a definition, we would turn to such concepts as form, matter, cause, effect, irrespective of whether they were susceptible to strict definition or not. These concepts it may be noted, are themselves residues of scientific theory as it has become assimilated by popular thought. In practice, our presuppositions remain undefined: they remain the unexpressed foundation of our ideas. Indeed, it is probably not even altogether correct to consider them as unitary. It is likely that the common theory of reality varies. One would expect it to fluctuate depending upon the individuals who relied upon it and the purpose for which it was used. Only ~~to the extent to which~~ so far as communication is effective and education is truly common, may the reality to which we all subscribe be called public

property. In ~~Chapter VII~~ chapter Three we made a beginning of criticizing this common view of reality. The criticism there presented was far from complete, partly because the topic is broad and complex, more particularly because implicit thought is potential thought and lends itself only reluctantly to definition and criticism. Yet the analysis that was made perhaps sufficed to shake the traditional reliance upon reality as an order established beyond question. The query concerning reality resembles a chain reaction. Once the familiar prejudices of thought are recognized as indefensible, the analysis of reality can no longer be repressed, and it proceeds like a fire now smoldering and now flaming brightly, until it has consumed the flimsy shelters of our ignorance.

To the extent that theory is unable to cope with its problems and in attempting to solve them becomes enmeshed in uncertainty, we call such theory inadequate or incorrect. While such insufficiencies may have many explanations, and while the attempt to correct them may take many forms, one of the most valid methods of emendation is to inquire about the presuppositions of the theory in question. Accordingly, it is reasonable that if we find established theories upon various topics unsatisfactory, we should examine their presuppositions, and if necessary seek new principles upon which the argument might rely. We have sought

such principles, but what we have found is not a substantive presupposition at all. It is, on the contrary, a functional principle that may be applied to the argument many times successively in order to keep it meaningful and conclusive. In this respect, the principle that we have found resembles the logical rules that, growing from the rigid customs of grammar, have succeeded in making our thought clear and unambiguous, if not always significant and meaningful. The principle which we adduce may serve to some extent to mitigate this ancient fault of formal logic. We have referred to this theoretical presupposition of our argument as experience, and in chapter one we introduced its definition. Having relied upon such 'experience' now in so many instances, it may be well to re-examine it as a principle to see how well it has stood up to heavy use, and to characterize its limitations ourselves if we were able.

Although experience is the presupposition of the investigation, the argument requires no explicit definition of experience in order to succeed. By way of comparison, there is much that we can recognize and discriminate by vision without being able to give a comprehensive and sufficient definition of the processes by which we see. Likewise it is conceivable that we might know many things by experience without being able to give a rigid and unequivocal definition of experience. Not

the definition of experience matters, but its use. If the individual experience that we have described is indeed the source of such certainty as we attribute to it, then the conclusions of our argument, or alternatives comparable to them, will be necessarily valid. If, on the other hand, such experience amounted merely to an imaginative hypothesis, then the argument would fail and a theory based upon it would prove worthless.

The concept experience is, of course, not new to scientific or philosophical thought. As we have previously pointed out, experience was written large upon the banners of scientists from the time of Bacon to the present. Empiricism, as a philosophy that presumes to rely solely upon experience, is even today the dominant fashion of thought. But a single name does not guarantee a single meaning. Originally, the term experience was used as a weapon against Aristotelian scholasticism. The authors who initially publicized this term wished to derive their view of nature not from the reading of books but from the examination of nature herself. The desire to see for themselves was dominant in their minds. There then ensued a revolution of scientific thought of great historical importance, and it was assumed that the validity of experience had been settled once and for all. It cannot be over-emphasized that the content of 'experience' was still theory, and even if such ~~theories were~~ theory was

more direct, more in consonance with experimental findings, it was public rather than private theory. By calling such theory public, I wish to emphasize the point that these doctrines were the property of society, at least of the society of educated men. These doctrines were presumed to exist both in the minds of their most capable exponents and in the most convincingly written of the textbooks. Each man might appropriate unto himself as much of knowledge as he was desirous or capable. Here was truth, even if it might be subsequently corrected by further investigations of nature. This fundamental attitude toward nature, reality, and knowledge exists even in our own day. It is the basis of all our education; it summarizes the prevalent theory of knowledge.

We have already pointed out some of the limitations of such an approach to knowledge and reality. Whatever its practical advantages may be, and they have proved very great, as theory it appears not entirely valid. The theory presumes that the concepts which men understand as knowledge should be truly common ones. Such a community of concept and of experience is never realized; it is always potential and never actual. Men do not in fact possess identical experience; one individual even to himself cannot comprehend such experience in its entirety. The concept of experience, in that sense in which it is conventionally employed, appears a pedagogical goal rather than an actual phenomenon.

When we rely upon experience in this conventional sense, we unconsciously make allowance for the fact that it is incomplete and potential, and that we always only recognize that portion of it which is then under conceptual scrutiny.

Common experience as it is traditionally construed must be considered a public institution, a program whose usefulness, though great, is limited by social circumstances. It is brought home to us that men's minds may be regimented just as their bodies; they may be taught to perform intellectual athletics in unison, just as for example they may be trained to perform music or to do calisthenics together. The community of spirit that is created and manifested in such exercises is valid, but the fact of community is no substitute for the reality of nature, no matter how susceptible we prove to that cohesive pattern of pseudo-reality which is presented to us. For this reason, we have avoided using the term experience in the traditional sense, but saved it to designate a different phenomenon. There is no need to expunge the traditional meaning; however, one should distinguish clearly the two uses of the term.

Individual experience must be considered something quite different. It should be understood as a biological phenomenon, comparable to our ability to see and to hear, comparable to consciousness itself. Logically experience is prior to all bio-

logical explanation. It would be futile to attempt to discover in biological disciplines or, for that matter, in psychological ones, the characteristics or qualities of experience. On the contrary, experience, if we are correct, is immediately given. Like vision or hearing, it will tolerate no conceptual mediation to our understanding. Experience may be understood in its proper perspective if it is compared with such biological phenomena as thirst, hunger, or desire, with the perception of light through our eyes or of sound through our ears or of touch through our skin. At the same time, it is important to note that experience is no occult, mystical, or extra-sensory pattern of perception. On the contrary, experience may be considered a concomitant of all consciousness, a quality which is usually ignored and obscured by traditional habits of thought. When experience is viewed in this way, there is no reason why it should be subordinated to a common pattern of understanding. We must recognize that the human being is physically, biologically, emotionally, and intellectually independent. Nourishment, illness, love, and life itself happen to be individual problems for all human beings. Man's ability to adapt himself, to imitate, to merge his individuality with that of his fellow men, however valuable to him, is only one aspect of his life. The need for

physical and intellectual privacy is another and no less fundamental characteristic of his existence. Whatever adaptations the individual is able to make to his society, ultimately his happiness and his misery, his life and his death are his own.

With such considerations as these we are able to disengage ourselves from a community concept of experience. To be sure, with a measure of discipline we can accustom ourselves to the common experience, and to a degree we must always permit our minds to be molded by it. Yet such common experience frequently seems incomplete and inaccessible, at variance with the immediate postulates of a more direct and individual experience. Consequently the possibility arises that a more genuinely personal, hence a more reliable and compelling pattern of experience might be described. The notion of individual experience is strengthened further by our encounter with beauty and by our interest in virtue. The unique and inimitable function of ethical and esthetic experience proves to be their ability to break out of the discipline of conceptual thought and to impress upon us the significance of our individual relationship to reality in this particular moment and in this particular place.

A disagreement concerning experience then, might be analogous to the dispute between a man who was blind and one who could see, or in a more benign comparison, between one who was color blind and one who had color vision. Alternatively, if our present description of experience seems to the reader extravagant or invented, or if he professed to have some other or more complete experience, for example if he were to claim to be able to comprehend as real any or all of the numerous images of mind that we have called concepts, then the disagreement would become analogous to the argument between a man who was sober and one who was subject to hallucinations. It is conceivable in turn that our own ~~intimate dependence~~ insistent reliance upon the present moment and upon immediate confrontation with nature would seem unrealistic. Again, it is plausible that the dissenting reader, who would claim to have direct experience of the notions that we have designated as concepts, might lack the rigorously critical attitude toward subjective experience that an investigation of this kind demands.

We must avoid fruitless debate. We may recognize the possibility that such discrepancies in thought and feeling as lead to argument about the quality of experience might themselves be biological phenomena. In other words, just as some men are born blind and some are born deaf, just as some have perfect

pitch and some cannot carry a tune, so it is possible if not likely that there should be constitutional differences among men with regard to their sensitivity to experience. As William James has pointed out, such differences might make some of them susceptible to one pattern of thought and others to another, making agreement impossible, no matter how diligently it was sought. However, the recognition that there might be objective discrepancies, differences between human beings enabling some to apprehend what others would be unable to recognize, does not relieve us of the responsibility of examining our own hypothesis with rigor and criticism.

The description of individual experience is impeded by numerous obstacles, the most important of which is the circumstance that the entirety of our patterns of thought ~~are~~ is derived from that intellectual community that we have called the conceptual world. It is therefore quite impossible for us to begin with the construction of experience de novo. We are not in the position of a man preparing to build a house from the ground up; rather we share the predicament of one who inherits an existing structure which he must examine for its structural validity and which he must reinforce and reconstruct as necessary. Far from being mutually exclusive, experience and the conceptual world are interdependent. We have pointed out that our confrontation

with nature inevitably issues in conceptualization. Even the image that I have of the tree outside my window is a concept. Thus experience itself must be recognized to be immediately productive of conceptual patterns, and insofar as our concepts are organically interrelated, experience seems productive of a conceptual world. By the same token, the conceptual world, complete and cogent though it be, does not become intelligible to me except in the specific experience. In other words, no matter how remote or ~~how~~ hypothetical the conceptual world might become, in order ~~for~~ that it ~~to~~ have meaning for me I must experience it. Someone else's mathematical formula is meaningless to me until I confront it on the printed page or on the blackboard, and this confrontation is in itself just as much a matter of experience as my recognition of the tree. The relationship between experience and the conceptual world is comparable, if one cared to use a mathematical analogy, to a process of integration. The individual instance, being the moment and occasion of experience, is meaningful only as a member of an integral sum. On the other hand, the integral sum achieves applicability through the individual instance into which it is differentiated. The methods of this limiting process require further definition. We must recognize in this context that experience is a negative concept. Experience may be defined as that which remains of the encounter between self

and reality after all the conceptual superstructure has been removed. The difficulty precisely is this: by the nature of our minds the conceptual scheme absorbs the specific experience in its entirety. Conversely the differentiation of the conceptual scheme into a particular experience is a limiting process which, however valuable in theory, can never be performed except schematically. One of the most important theses of our essay is that ethical and esthetic valuation certify the presence of this limit.

Evidently the designation and the description of experience is a far more difficult task than would appear on the surface. We cannot readily detach ourselves from long established habits of thought. Nor is it possible as a mere intellectual exercise to undo the training and discipline that are so deeply engrained in our pattern of thought. And even if we could, we should not want to. The alternative way of stating this problem is to point out that our apprehension and reaction to reality are not unequivocal and inevitable results of our biological nature, but they are at least in part the products of long training both of ourselves and of our ancestors. The conceptual structure of which we attempt to obtain a detached view is very much part of our lives. Indeed, intellectually, it may be as much a part of ourselves as flesh and bones are part of the body, and it is possible

that we should be quite unable to dispense with it. But we propose neither to destroy nor to abandon the conceptual world; we wish merely to examine it critically and to balance its claims against those of experience. Thus the consequence of our investigation will not be the depreciation of the conceptual world, but a clearer understanding of its potentialities and of its limitations.

There are two paths to the recognition of the conceptual world. One approach is to contemplate the complexity, incongruity, and changeableness of the totality of our knowledge, presuming as it does to be equivalent to reality. From the unsatisfactoriness of traditional patterns of knowledge we might conclude that the conceptual world was not all that it claimed to be. The difficulty of such a destructive analysis is that while its premises are simple and seductive, its conclusions are violent and appalling, and the reader who followed this argument might well scorn it because it led him to so apparently absurd a conclusion.

The alternate approach to the recognition of the conceptual world is very different. It begins with the examination of the specific experience which may be readily demonstrated to be limited and defined by the powers of our senses and of our

minds. The knowledge which I have of physical objects is only in part the result of their physical structure; to an unanticipated extent it is the expression of my own apperceptive function as well. My knowledge is limited, for example, by my inability to resolve the image except to a definite level of detail. If I had the eyes of a hawk, or the sensory apparatus of a bat, if my perception included radiation outside of what we now call the 'visible' spectrum, then my images might indeed be different. Thus, although my encounter leads me to believe that I am face to face with an object outside of me, my knowledge of that object is yet strictly limited by my own capacities of perception and knowledge. Once the implications of this circumstance have been recognized, it will no longer seem anything but necessary that I should consider even my apprehension of the particular tree as a concept. And if an object so discrete and impressive as a tree cannot escape the process of conceptualization, it is quite inconceivable that such other terms as forest, wood, cellulose, carbon, atom, electron, should consititute anything but concepts. In short, from the recognition that the single confrontation with nature is productive not of the apprehension of reality but of its conceptual representation, it inescapably follows that these experiences in their entirety would constitute not reality but a conceptual world.

The primary source of the awareness of objectivity is the momentary encounter with reality. Objectivity, in other words, is also an expression of consciousness. In the act of perception I am conscious of self; by the same process I am conscious also of an object other than self. The task of intellect, then, would be to imbue with meaning and significance this awareness of objectivity, just as it is the task of intellect to designate the integrity of self. It goes without saying that the characteristics of the object perceived are not prejudged. What I apprehend may prove to be a mirage, instead of the oasis I had envisioned. The words that I hear may be the phantoms of a dream. In that event, I should have to refer for the objective element of the perception to some physiologic process in my mind, analogous to a headache or a toothache, which although they occur within me physically, yet I discover and describe as something objective. The task of defining the objectivity of apperceptions in this sense is the exemplary task of science. The intention and the purpose of science, which has its roots in common sense, is to discover what it is about this tree, for example, that is objective, that may also be perceived by myself at other times or by other people at the same time with me. The objective characteristics of the apperception must be distinguished from its subjective elements, from that which is related purely to my present conceptual activity. It seems unlikely that science however diligently and rigorously pursued, should ever be able to make the ultimate distinction between subject and object.

We recognize that our apperception does not correspond absolutely with the object outside. We consider these apperceptions, therefore, to be conceptual in quality. By the same token we must recognize a non-conceptual element in apperception, and this element we call experience. The very reliability of our conceptual discoveries suggest to us that they are not entirely arbitrary, and that there is some object in nature the encounter with which is the source of our knowledge. As we have stated, we also derive the notion of object from the experience of consciousness itself, in which we are aware not only of ourselves but also of that which is other than ourselves. We attribute unity to both poles of this equation. When we attempt to define our encounter with the object, we are stymied. For even if we were satisfied with an entirely phenomenological description, even if it pleased us to describe only the appearance of the object, yet by the rigid definition of the conceptual quality of our apperceptions, we should discover in such a phenomenal description not the encounter with the object itself, but mere conceptualizations by our apperceptive faculties. This is the paradox that underlies the theory of knowledge.

The resolution of this paradox is not easy. For one thing, we are so ~~very much desirous of obtaining~~ eager to obtain a reliable view of the object in question that we will proceed uncritically to rely upon whatever simple and relatively stable conceptual formulas we can discover. We presume that such formulas provide a clear designation of what the object might be. At the same time, such conceptual formulas limit our approach to the object in question. For practical purposes, such conceptual definitions of the object may well seem unequivocal. Yet the reader who has carefully followed the argument will realize that practically effective or not, if a single confrontation with any of the objects in question is not sufficient to eliminate the conceptual element in apperception, then no combination of such experiences can entirely eliminate that uncertainty. Indeed a summation of experience will inevitably compound the conceptual element in it. Through such summation of experience, the changeable, altering characteristics of the object apperceived are effectively eliminated, and a type or a pattern of object emerges. If this type of object is the result of the exclusion of subjective and changeable characteristics of the successive apperceptions, it is also the reinforcement and reassertion of other conceptual qualities of apperception. In such an image are condensed all the predictable, reliable elements of apperceptive experience; the haphazard, uncertain components are ipso facto ex-

cluded. Such a composite typical image of the object, useful though it may be, is not reality. Because of its great practical value, the scientific object presents us with an even tougher shell of conceptual formulas to analyze. These formulas are the rationally organized concretion of the conceptual content of many individual confrontations.

Ethical and Esthetic Consciousness as Sources of Doubt

Our concepts do not comprehend nature itself. The conceptual world, or the interpreted world as we may chose to call it, is neither a reproduction nor an image of reality, but rather an intricate, convincing, and effective synthetic fabric woven by our minds. Experience, whatever it might be, is not absorbed into the conceptual world, but remains critically distinct from it. All these considerations lead us to a new attitude toward the conceptual world; this attitude we call doubt. The mere mention of ~~such an~~ the iconoclastic term will engender distrust. It is a curious and illuminating commentary upon Western thought that scepticism, doubt, or lack of faith has for so long a time been the evil spectre of its intellectual existence. It is not by accident that faith was the motto of the fifteenth century reformers, and that the theologians consider doubt in religious matters the only unpardonable sin. The history of modern philosophy gives many examples of the fear of doubt. Consider the fear of Descartes that the adoption of a new habit of thought might corrupt him, and his consequent vow to retain uncompromised all of his prior moral convictions. Leibniz attacked Newton's physical theories at least in part because they seemed to him

to detract from the glory of God. Kant's fear of scepticism is vividly stated in the introduction of the Critique of Pure Reason, and likewise clearly reflected in his desire to become the father of a new orthodoxy. All this did not prevent Kant's contemporaries from viewing him as the man whose thought would grind everything to pieces. Perhaps the fear that our intellectual tradition has always demonstrated of doubt shows more about the vulnerability of what requires protection than about the destructive quality of doubt itself. One might justifiably inquire about the frailty of what was so weak that it could not stand the searching of critical thought. Conversely one might consider whether any idea requiring the protection of blind belief is worth keeping. Traditionally, deity seemed to require the greatest protection from doubt, and yet one might reasonably ask what kind of God would require protection from human thought? On the contrary, is it not plausible that God should be honored and worshipped in a particularly magnificent fashion if he were doubted? The fear of doubt betrays a misconception concerning thought. It implies on the one hand an endorsement of the conceptual world in its ultimate reality. On the other hand it implies the misapprehension and deprecation of reality, as if reality could be compromised or even destroyed by mere cogitation on our part.

Doubt has been most feared when it appeared as the destroyer of a familiar world. Yet this seems a point of much confusion, because the object of doubt is not reality at all. The object of doubt is merely the illusory substance of our concepts. That which does not exist cannot be destroyed; the weakness of thought which is demonstrated by doubt would be less dangerous if it were understood than it is when it is denied. Perhaps the quality of doubt is made most clear in the synonym, scepticism, implying through its derivation the notion of seeing or recognizing. In this sense, doubt seems a most legitimate and constructive function of mind: doubt is the recognition of our own ideas for what they are.

The function of doubt becomes relevant from a review of the elements of our experience upon which we have previously commented at greater length. The image and the definition of the self upon which we are accustomed to rely will not survive a critical analysis. When we speak of self ~~responsibility~~ responsibly, we can refer to nothing other than our present awareness of it. What is past and what is to come are remote from us. The past and the future can be approached only through the present. Whatever memory or anticipation mean, they must mean here and now. Thus perception and action as they are immediate to us become primary occasions for the assertion of the

integrity of self. To state it differently, whatever self may be, it must be in the present. Self recognizes itself in the present action and in a present of perception. Consequently, we may speak of the determination of self to become valid in present action as ethical consciousness; we may call the need of self to become valid in present perception esthetic consciousness. To the extent that an action possesses value, it enhances the reality of the self that performs it. Comparably, to the extent that an object has value, the apperception of ~~its~~ that object establishes the reality of the perceiving self. These processes of valuation are not explicit, and they are usually not recognized in their importance. When we become aware of the dependence of the self upon action, we recognize the ethical moment. When we become aware of our dependence upon objects about us, we recognize the esthetic situation. This dependence explains why ethical and esthetic valuation play so predominant a role in our intellectual and emotional lives.

Nonetheless, ethical and esthetic consciousness, the experiences of the present moment in space and in time, fail to receive adequate representation in our conceptual world. Between concept and experience there is a conflict, and this conflict is the source of doubt about the conceptual world. This

conflict is demonstrated with particular clarity by the ethical moment and in the esthetic situation. Therefore ethical and esthetic consciousness are preeminent sources of doubt about the interpreted world.

The argument hinges upon our ability to separate the so-called conceptual world ~~so called~~ from reality. We have approached this distinction from several points of view. As we attempt to define reality in terms of the concepts with which we are familiar, our argument falters. It appears that no matter how carefully or conscientiously we examine the world before us, we are yet unable to arrive at descriptions or definitions of reality that are unequivocal. We discover that our knowledge possesses a pattern and a texture of its own; by the very processes of cognition, we tend to confuse this pattern with the reality for which we are looking. To the extent that ethics and esthetics possess ~~a~~ unique approaches direct ~~approach of their own~~ to reality, they contribute to our awareness that our knowledge, whatever it may be, fails to exhaust the reality which it claims. Doubt then appears no longer as a denial of reality, but as the recognition of a relationship between mind and nature. Conceptual formulas cannot substitute for this relationship. ~~This relationship cannot be substituted with conceptual formulas.~~ Doubt demands the acceptance of this relationship in its complexity. Moreover, doubt is not to be sought in

any particular proposition, but rather in our ability to judge fairly and surely the various claims that press upon our consciousness. Thus doubt might well be equated with thought or reason itself. Indeed, we might have availed ourselves of these terms if they had not already possessed specific connotations which would have made our argument more difficult to follow.

The Conceptual World in the Light of Doubt

If our essay, instead of the laborious investigation that it has proved to be, were a novel or a play, the time would have come for the exchanged identities to be revealed, appearances to be cast aside, and all things to be presented in their true character. The reader, who might have waited patiently for a magic word which would shatter the illusions of the conceptual world and reveal reality uncompromised, will be disappointed. For, if we promised by way of introduction that nature would remain unchanged by our argument, the same promise was applicable also to the conceptual world. It also remains as it was. It is vain to assume that with the recognition of our conceptual world for what it is, that conceptual world should vanish like a mirage to be replaced by some ultimately consistent, valid, and penetrating view of reality. The painful lesson is that reality cannot become conceptually accessible to us. The demand for reality that is implicit in experience remains unsatisfied. The consequence of our analysis is nothing more or less than that we should recognize the compulsion of the conceptual world even though it is contingent upon the limitations of our minds and dependent upon the hazards of our social heritage.

If we have put the house of intellect in order, that should be accomplishment enough. We have identified the elements of our experience, and separated them one from another. Now we ought no longer demand of the conceptual world what it cannot offer us. We must tell our scientists please to let our ethical convictions and our esthetic sentiments alone. We may also suggest that science and religion need not quarrel because they treat of similar problems by entirely different methods. Finally, we state explicitly what is already so very much apparent: that our conceptual thought possesses unlimited possibilities. These potentialities of conceptual thought might be the more freely exploited, if it were recognized that concept is related to reality not as the image of the original. If they are functions of the human mind, concepts should be judged solely by pragmatic criteria. Not the least of the benefits to be derived from our analysis is the freedom which it bestows upon the conceptual world. Our concepts ought no longer be subservient to any specific experience. The conceptual world must base its claim to validity not upon a presumed identification with reality but upon its effectiveness in facilitating our adaptation to that reality. Then we shall stand an even better chance of arriving at a productive and fruitful understanding of nature.

Once the conceptual world has been recognized as functional in its validity, its unity no longer appears essential. In this new light it will prove itself capable of assuming many new tasks. We may accept the fact that while nature is only one, there may well be a plurality of conceptual worlds. Individual conceptual schemes may be recognized without contradiction to be in continuing process of change, improvement, correction, and adaptation. Science would be considered not so much the discovery of reality, as the systematic elaboration of a pattern of understanding. Science is the systematic invention of concepts that are particularly useful in our accomodation to reality. When our intellectual existence is interpreted in this way, the individual and his private thought no longer seem submerged in the conceptual world, but to the extent that the conceptual world has no existence except in thought, the individual will become its indispensable vector. The conceptual world is potential; its actuality depends upon those of us who know. It becomes real only in our ability to utilize it. Evidently, in order to exercise this ability we require the institutions and the instruments of a civilized and educated society. At the same time, the relationship of the individual to knowledge will appear altered. Although he will continue to be dependent upon knowledge, his dependence

will no longer concern a particular constellation of facts as the framework of reality. He will be dependent upon knowledge as intellectual activity, valid not in its congruity with any particular historical system, but meaningful as an indispensable exercise ~~activity~~ through which his mind becomes real. There is a point of view from which the practical, historical, technical, and social consequences of our knowledge appear quite secondary to its importance as constituent of the individual mind.

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