Edited with an Introduction by David L. Miller

The Individual and the Social Self

Unpublished Work of George Herbert Mead

DAVID L. MILLER is professor of philosophy emeritus at the University of Texas. He is the author of The Philosophy of Alfred North Whitehead; Modern Science and Human Freedom; Individualism, Personal Achievement, and the Open Society; and George Herbert Mead: Self, Language, and the World, which is published by the University of Chicago Press.

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What is the meaning of the expression "loss of consciousness"? The event which it describes follows upon the effect of a blow, of a poison, or of some physiological abnormality, or of profound sleep.

It is a ceasing of experience in respect of the individual concerned, while experience continues in respect of others not affected by the conditions inhaimal to the organism. When the effects have worn off, experience resumes in the case of the individual, and he recognizes that events have transpired during the period of his so-called unconsciousness which would otherwise have been registered in memory, but which absolutely do not exist for him as matters of experience.

It is an extension of the losses of experience which follow upon the closing of the eyes or the other sense organs, the local anaesthetics, due to the local effects of temperatures or drugs, as well as of the shifting of attention so completely from certain parts of experience that they disappear.

It is evident that it is but logical to assume a zero point in experience in which all disappears, if its diameter can be diminished, or different parts of it be withdrawn.

The term "loss of consciousness" is the statement of this deflection of experience as a whole, when it is dependent on conditions of the organism which preclude experience.

When an expected event does not transpire, experience is diminished. If some external shutter bars vision, experience is again curtailed. But these sublations of experience are due to conditions outside the organism. Loss of consciousness represents the deflection of the organism or some of its mechanisms in that interplay of world and organism which is essential to experience. When consciousness returns experience is again resumed because the organism again enters into functional relationship with the environment.

Has the event of loss of consciousness any bearing upon that phase of experience which we term mind, or upon the so-called body-mind problem? In the light of the above statement it is evident that consciousness only has existence and meaning in the statement of experience from the standpoint of the organism, it being recognized that both organism and environment must interact for the existence of experience. Loss of consciousness does not then imply something that is separable from the experience in which both organism and its environment appear. It is meaningless in view of such a description to speak of the consciousness as leaving the body and existing in some other dimension of experience. It cannot therefore indicate the nature of mind.

Mind is that part of experience in which the individual becomes an object to himself in the presentation of possible lines of conduct. This presentation takes place by means of the imagery of past experience whose presence is conditioned by the past experience of the individual and the attitudes which it has left. This imagery is therefore as dependent upon the structure and functioning of the organism as is the sense experience. And as the self appears as an object only through the individual addressing himself by vocal and other gestures, this phase of experience also is dependent on the structure and functioning of the organism.

The relation of the body and mind is then the relation between the functioning of the individual organism and that part of experience in which the individual does address himself, presenting possible conduct through the use of imagery.

The only characteristic difference between this relation and that lying between the objects in the environment and sense experience is that it lies between the individual as an object and the individual answering to this object, for imagery is also present in sense experience of objects in the environment. Consciousness has no other meaning here than that the organism is functioning normally. The characteristic difference appears in the expression "self-consciousness."

What is the relation of the reality in experience and that existing under conditions in which there could be no experience? By experience is implied reality in which living organisms are essential parts, not in the sense that the objects in the environment appear as presentations of the organisms, or that the relation between the objects and the organisms is that of awareness, but that what constitutes the object in the experience is dependent on the selection of content and imagery which the sensitivities of the organisms involve. In other words the environment and the form are objectively real. This is clearly evident in the
interweaving of plant and insect life, or in the creations of human industry.

One could pass from one experience to another or to others only insofar as the individual could become an object—as an individual—instead of the organism that answers to an environment. This would involve also the presence in his organism of sufficient affinities to other forms so that he could take the role of the other form into whose environment he wished to enter. Insofar as there are common attitudes in all these roles assumed, and insofar therefore as there are common objects answering to these attitudes, there appears what may be called a generalized environment and a generalized organism. Such experience as this must of course have its own function in the concrete experience of the society within which it arises. The objects of the objective sciences are evidently, from this standpoint, the objects of this generalized experience, and their relation to the concrete organism on the one side and to the concrete environment on the other have provided the two great speculative problems, the one the relation of mind and body, the other the relation of metaphysical entities to the objects of immediate experience.

The effect of taking the role of anyone is to eliminate the peculiarity of the environment of any one individual and to substitute for any concrete individual an abstraction—a generalized individual, the thinker. The result of the analysis which the thinker makes is to set up an observer with a field which underlies both the environment and the individual of immediate experience. In the immediate experience there is a sensitive organism and a world of color and other qualities. It is not necessary that objects in immediate experience should be colored. Those born blind live in a world of immediate experience. What is essential is that objects should have some quality or groups of qualities which affect the organism from a distance. In scientific imagination or otherwise we may replace the characters that affect us by other contents. We may replace in immediate experience the color with a congeries of atoms and electrons if need be, so long as these simply take the place of the character we are analyzing, and we sense them in imagination as surrogates of the original characters; but if the process of analysis is carried so far that we also substitute for the individual organism a congeries of atoms and then, for those, galaxies of electrons, and put them into relationship with the objects by way of the interplay of forces between the one congeries and the other, then immediate experience is gone unless it is salvaged as a consciousness that is separable from the organism: for such an explanation of characters of things wipes out the characters explained. There is no color in a world without things covered with surfaces which reflect some rays of light while they absorb other rays and send on the reflected rays by way of vibrations of ether to affect the rods and cones of a retina.

There are, in my judgment, two logically different tendencies in the thinking of scientists when dealing with such problems: either they tend to replace the object with imagery of minuter particles and uncritically to imply a microscopic eye that takes the place of the sensing organism, thus substituting a supposititious direct experience for that of the eye and hand; or else they undertake to reject all imagery of a physical object in thinking things, and rigorously to confine their thought to the statement of inferred relations between posited metaphysical objects which are by definition beyond any conceivable experience.

This latter attitude, which has the appearance of being the correct attitude, has generally led to placing in a field of consciousness all the characters of the world of immediate experience except the abstract relations with which mathematics and a mathematical logic are occupied. It leaves thought with the epistemological problem of getting from an immediate experience within which knowledge lies over into a metaphysical field that seems to be entirely beyond reach. There is a more modern philosophic movement which finds its origin in the scientific tendency under consideration—neo-realism with its symbolic logic. This doctrine, proceeding by a ruthless analysis, leaves all of reality in the form of ultimate elements—such as points and moments, and sensations, and concepts, and external relations. Such a doctrine conceives its task not to be that of relating objects in immediate experience with metaphysical objects, but that of taking everything to pieces. The epistemological problem here seems to evaporate, though it condenses again, refusing to be thus conjured out of existence.

What is of striking interest is that the differences of attitude represented by these different tendencies seems to have no bearing on the work of the research scientist. Neither the question of the existence of a consciousness, or of a metaphysical object, though both seem to be implied in scientific findings, have provoked any interest in the scientist. This may be due to the fact that the problems of the physical sciences take the form of an analysis of a distant object in terms of possible contacts. It is the relation of elements of the retina to those of the surface of the epidermis. How many of the latter will answer to a given quantity of the former is a question solely of the distance of the object. The same object expressed in terms of excitation of rods
and cones may answer to any number of square centimeters identified by actual placing of the rule by the hand, depending entirely upon the distance to which we project the object. The increased diameter of the moon or sun at the horizon is a familiar illustration. This may be called the process of telescopic analysis.

On the other hand, an object within the field of immediate experience, the relationship of whose distance and contact values has been determined, i.e., an object which we both see and handle and which has therefore been measured, such an object under a refracting medium affects a larger number of retinal elements. It is said to be magnified. In terms of immediate experience this may be interpreted either as the actual increase in dimensions of the object, or as such an increase in the fineness of the vision as the apparatus of distance perception might attain through the approach to the object at closer and closer intervals. This latter interpretation in terms of immediate experience implies a continually proportionate reduction in the size of the observer. If the size of the observer is reduced with respect to that of the objects observed the relative size of the objects will be increased. This may be called microscopic analysis.

Out of the formulation and refinement of the relations between the distance and contact experience of the object has arisen the apparatus of the exact sciences, the mathematical sciences. The form of their problems therefore always involves simply the relation of the distant environment to the organism as shown above. It is not possible to translate a problem of the exact sciences into the form of the relation of organism to immediate experience, for they undertake to gain the conditions of any experience. This is what is implied in the problem of the relation of the organism to consciousness. It is the problem of the pseudo-science of psycho-physics. Fechner's unsuccessful attempt to establish a logarithmic relation between the quantity of the stimulus and the number of conscious elements that went to make up a sensation, proceeded on the false assumption that there is a consciousness separable from things, and that it is made up of elements which are found in just perceptible differences of sensation. These are entirely unjustifiable metaphysical assumptions. These assumptions are due to the form which the analysis of the exact sciences gives to the problem.

As indicated above, the objects are subdivided until they lie beyond the realm of a possible immediate experience, and this analysis is inevitably carried into the structure of the organism itself. The whole process of experience is then stated in terms of the changes of minute particles which lie beyond a possible experience. The immediate experi-

ence of which this is a formulation remains thus outside the process which science presents, and is relegated to another field, that of so-called consciousness. The metaphysical interpretation of this situation seems to be unjustified, for consciousness represents simply the normal response of the organism in its interplay with its environment. Furthermore there is apparently no serious difficulty involved in the assumption that a world constituted of the elements posited by the physical sciences should arise to objects and organisms within which this immediate experience arises. We are, however, bound to consider the character of the experience within which these subexponential objects of the physical sciences are posited on this assumption. This is also an experience and implies objects over against individuals. There is here the same relation of environment and individual which exists in immediate experience. The two determine each other in terms of selection. A suppositious individual is implied that can experience electrons revolving around positive electrical charges that together constitute atoms. Distance experience and possible contact experience are implied, otherwise the elements would not be physical objects.

We cannot minimize the parts of physical things without at the same time implying a conceivable corresponding reduction of the powers of perception by which they would enter into a conceivable physical experience. Science rigorously abstracts from all the implications of such a perception except for the determinations of relative velocities and changes in velocity and the inertias of the physical particles; but does such an abstraction free these objects from the implications of lying within a field of experience? The realist asserts that it does. He assumes that the object can enter the mind as thought without any implications of perception. He assumes that ultimate elements and relations can be recognized as such because they simply happen in upon the mind.

The effect of this analytical method of the realist is to break up the objects of immediate experience and the objects with which science is occupied into elements of quite varied and logically different characters, such as points and moments, that are not the points and moments of experience and can be only negatively defined. These characters are said to have relations which are external to the relata and separable in knowledge of ordinary objects. Such an analysis makes possible very comprehensive formulae which have enormously wide application, rigorous demonstration within the realms of mathematics and symbolic logic. But it is a method that never has been used on the actual frontiers of science; for science has always proceeded by the hypothetical positin
of objects which are logically of the same character as the objects of immediate experience.

Science has always analyzed its objects into other objects, never into the logical elements out of which objects may be conceived of as put together. So far as it is possible, the scientist conceives his object as occupying the field of immediate experience, as being simply a minimal object differing from the object of direct experience only in being beyond the vision and tactile limit of direct experience, as for example microscopic and submicroscopic disease organisms. Even molecules, atoms, and electrons are presented as far as possible in terms of reduced dimensions of objects of direct experience. It is only when science undertakes to explain the process of immediate experience itself that its objects pass logically out of the field of possible immediate experience.

The problem is therefore the import of the undertaking to explain immediate experience in terms of objects whose existence must lie outside of immediate experience. I have already suggested that the problem may not carry with it the difficulties which exist on the face of it. It may be that there is in existence a world of subexperiential objects within which organisms and their environments arise together with immediate experience. The legitimacy of this assumption becomes questionable when we recognize that in the world of subexperiential objects it leaves the characters of objects which they explain without objects to which they belong. Inevitably they are associated with the mind that carries on the analysis and they seem to imply some nature of which they can be regarded as states. Whatever else may be said of these characters they must be regarded as belonging to objects. Either to make them over into states of consciousness or to leave them as bare universals existing in a Platonist world runs counter to the nature of experience within which we find and identify reality. One or the other of these alternatives are necessary unless we assume that the characters in question come into existence with the immediate experience, i.e., that color and sound, odor and taste arise not as states of consciousness but as qualities of objects together with the sensibilities of animal forms. Otherwise stated, the surfaces are colored the vibrations visible to the eyes and audible to the ears; without eyes and ears they are merely surfaces and vibrations. This would imply that in an experience there is not only the selection of objects in an environment for which the attention and interests of organisms are responsible, but also that increased sensitivities of organisms actually add contents to the objects within the environments; in other words that the eye creates color in the object and the ear creates sound.

Stated in this form, the assumption is not an attractive one. But it may be claimed that with the higher organization of things such characters as these may come to objects though they are by definition lacking to their constituent parts. The results of combinations may be qualitatively unlike those of what goes to make them up. From this point of view the eye and the ear would not create the characters. The characters would be there, and the eye and the ear would respond to them. If we return to the immediate experience within which objects have these characters, we find that the organism that perceives them is not the organism that physiology, physics, and chemistry analyze. On the contrary, this organism so studied is itself perceived. We place ourselves outside it and analyze it into the same elements as those out of which the objects that affect it are made up. The sensuous characters exist in the world of immediate experience, but in that experience the analysis does not take place. For that analysis inevitably includes the perceiving organism. In the analyzed world color and sound, etc. do not exist. They do exist in the world of immediate experience. The problem is then the relation of these two worlds to each other.

The first point to be noticed is that the individual remains in the world of immediate experience in regard to all that lies outside the field of thought. The field of immediate experience is the support for getting his lever under the world of reflective thought. Insofar he can present the objects that result from his analysis as parts of this world he does so. It is only when his explanations of the characters of the world lead him to objects which cannot themselves have these characters and states the organism in the same terms that these objects pass out of a possible world of immediate experience. He could and is apt uncritically to assume that when atomic and molecular objects reach a certain size and organization they become colored and sounding, but he runs upon a difficulty when he identifies the molecular and atomic organism, that is, an object over against the perceiving individual, with this perceiving individual. This makes it necessary to find in the perceiving individual contents answering to the physiological processes caused by the molecular and atomic world, while in immediate experience perception is simply the relation to the object that is there.

The only content that can be found in immediate experience answering to the effect on the organism of surfaces, which through reflection of ether waves stimulate the retina, is the color which for immediate
experience is the colored object. Thus this identification carries over into the perceiving individual of immediate experience the objects of his perception. It is evident that, logically, the physiological system must be kept as a part of the objective world and cannot be identified with the perceiving individual.

This brings us to the question of the situation in which the individual can be an object to himself, and the relation of that self to the physiological organism as presented by scientific analysis. The criterion already given of the appearance in experience of the individual as an object is that action directed toward an object should also be directed toward the individual. Such action, in case the individual responds to it, identifies him as an object. This action also places the individual in the attitude of an other—an object reacting to himself. It is only when such conduct leads to assuming the role of another that it can be logically completed. In this case an entire social act lies within the conduct of the individual. He hears his voice as an expression of an object—a social object—and he responds to this stimulation as he would respond to the vocal gesture of another. When he has taken the other phases of the act, which is the attitude of the other, so that his response will be in character, that is, so that the reply has all the essential implications of reaction to another, the individual will have appeared as an object in experience. In this complication of social conduct the individual does become an object insofar as the individual also becomes another.

It is true that in the contacts of the different parts of the body with each other, especially with the hands, the organism becomes in a sense an object to itself. However, the body as an object—a purely physical object—enters hardly at all into the field of adjustment to the other objects. It appears as an object almost entirely in the application of the hands to its surfaces and their appendages, in rubbing, scratching, etc. The adjustments of the body as an object to other physical objects take place quite automatically. It is not the body that we feel and partially see that makes its adjustments to distances and anticipated contacts. While these experiences of sight, touch, odor, taste coming from the body do fuse with the experiences of movement and adjustment to the objects in the environment, the former do not serve purposes of control in the conduct of the body. We do not see ourselves making a leap by this experience.

In the immediate experience of purely physical objects the body of the individual as an object does not enter the field of adjustment. As an object it is of interest practically only in its own care. In social conduct of the deliberative type, the self as a social object enters the field of adjustment on the same basis as other objects. Where this takes place there appears what is called mind. This sort of experience involves not only the immediate presence of objects, but also the conversation of the persons and things with the individual, the persons and things whose roles the individual assumes in so-called thinking, and the imagery, some of it organized as memory and some simply there but dependent for its appearance and continued presence upon the interests of the individual, especially the interests of thought. The thinking in its simplest form is the presentation of possible conduct under conditions of reflection, i.e., in inhibitions which are involved in the adjustment through gesture of complex social conduct. In thinking the individual replies to the gesture, while both gesture and reply become the symbols of the anticipated experiences which the conduct implied in the attitude would bring with it. The effect of this thinking is to put into the objects of immediate experience values which did not exist there before and to lead to conduct which overcomes difficulties otherwise insurmountable.

The world which answers to the composite thinking individual includes the hypothetical structures of things which these different alternative lines of conduct imply. We will assume that a man rehearses a conversation with an acquaintance in persuading him to undertake some piece of work together with the individual in question. The acquaintance objects and the man replies with common advantage and later gains. Out of the imagery conversation arises a plan of approach and attack which promises success. This hypothetical world of imagery and vocal gestures developed into symbols implying things and occurrences grows out of the objects of immediate experiences and must eventually fit into the world of experience within which the conduct must take place. For the time being, however, it has not this immediacy or its sort of reality. However secure it may be in the intelligence which inspires it and the past experience it reflects, it has not the security of accomplished fact. Its reality depends on the outcome of the projected conversation on the morrow. In this world is a self of the individual which is an object over against the self in whose mind the whole thinking goes on. It stands for the individual as he will conduct the discussion tomorrow. In other words it is the self that is not in immediate experience, that is not only continuous in memory from the past, but in anticipation into the future, that stretches over the vacuities and interstices of sleep, and the so-called losses of consciousness, that includes the springs of action which lie beyond the range of reflective control, but especially that has such an organization for future conduct
that present conduct becomes possible and intelligent. It is that hypothesis of the self which enables the individual to act with reference to the future.

Insofar as this hypothetical self includes elements which by definition cannot be in immediate experience, to this degree it is metaphysical, and it is the precipitation of these metaphysical elements that have in the past crystallized into a soul. These elements include: the continuity of interrupted experience, of past and future experience, the springs of social conduct that do not themselves appear in experience, those contents of selves and other social objects which belong to them in immediate experience but which the accepted hypothesis of the self does not admit of, e.g., the so-called altruistic expressions which a hedonistic doctrine explains psychologically, or the unsophisticated impulsive goodness which a Calvinistic theology explains as self-deception, or the characters which mistaken judgments of others have ascribed to them. In general the self as an object, that is, the self which the individual presents to himself, takes into itself contents which belong to the objects of the perceiving individual in immediate experience. This is also true of the relation of the immediate experience of physical objects to the physical organism over against its physical environment.

In immediate experience the perceiving individual, apart from the self that arises in social conduct, is merely a point over against the object, that is, perception is only the presence of objects. The contents in the objects which psychological analysis places in the individual, the imagery from past experience, the imagery from motor responses, the meaning and ideas, are all in the object. Its distance, its solidity, its roughness or smoothness, its attractiveness or repulsion, its aesthetic values, are all in the object. This is not the relationship that exists between the physical organism and the physical objects that affect it in the process of perception. The whole content of imagery can be stated only in terms of the central nervous system, the re-excitement of tracts which have been affected in the past. The same is true of meaning. It can be stated in terms of the physical organism only in the excitement of the motor responses, which are held in check. A very considerable part of the object of immediate experience must be located not in the physical object but in the physical organism. If now we identify, in any sense, the perceiving individual with the physical organism, these contents which are placed in the central nervous system of the organism can only be put into the perceiving individual of immediate experience by taking them out of the object and calling them states of consciousness of the self or, metaphysically conceived, of the soul. We must also include in this list of contents of the self, which the identification of the physical organism with the perceiving individual forces upon the self, the secondary qualities insofar as they cannot by definition exist either in the physical organism or the physical objects of its environment, since the elements out of which physical science conceives the stimulating surfaces and chemical structures of the objects and the end organs and nervous apparatus of the organism are made up could not have the characters of the experience which they are supposed to condition. These then have also been regarded as states of consciousness. However this identification of the perceiving individual and the organism in perception is subject to the most serious question.

The identification takes place in the social process out of which mind arises. It is the process in which the individual addresses himself and thus becomes an object to himself. The individual who addresses himself is the perceiving individual, responding directly to the stimulation which his own gesture and attitude have called out. To this extent the self thus addressed exists for him as an object, while the addressing individual is without content except that of the gesture involved in addressing himself, and this appears as an object only in the response it arouses and the memory image of the act. The self addressed, on the other hand, stands out as a social object viewed from the standpoint of social conduct, and as physical object over against physical conduct. As the individual takes the part of the other or the generalized other he is object to himself. Insofar as he takes the part of the individual in reply to this address, the other or others are objects to him, and he is in the attitude of immediate experience. It is important to note that the relation of the social self to the physical organism lies between these two in the objective field and never includes the self of immediate experience. The relation between mind and body is an analysis of an object. This object is mental insofar as the contents are the interplay of the inner conversation with the imagery and meanings which the so-called thought isolates from the objects. It is the body insofar as the organism as an object is distinguishable from the interplay of inner conversation consisting of its imagery, meanings, and the affective characters that attach themselves to them. This body in primitive communities is still a social object, as are all other physical objects in which vivid interest centers, even after death.

Our unreflective attitude toward the self as a social object includes the physical organism insofar as this is involved in social stimulation and response. The man is his facial expression, his tone of voice, his
threatening or friendly pose, and his conversation. In so far as the physical organism does not play a part in this social stimulation and response, in so far even as it is or can be ignored without the disappearance of the self as an essential social object, in so far as parts of the organism can be actually lost without this disappearance, it may be and comes to be regarded as purely physical. In so far as the inner interplay of inner conversation can go on without evident bodily expression, it comes to be regarded as separable from the body and capable of existence apart from the body, though the immediate attitude of those who have entertained this belief has given the self disembodied from this body another tenuous body which is capable of conveying those social stimulations and making those social responses which have been the essence of the self as a social object. While the original distinction was between a self that could leave the body and a body which after the double had left it was also a social object, the development of the physical object has led to an entirely logical situation. The soul or self that belonged to the object that was becoming impersonal, i.e., was ceasing to arouse or answer to social stimulations, became the nature of things, its tendency to react in a definite manner, a force which inhabited the object as the spirit inhabited the body. Such a change in the character of the object could not take place with a corresponding change in the attitude of the individual toward the object. This change is the evolution of the process of thought out of the conversation between selves.

The evolution of things and thought has been and must have been parallel. In this evolution, because the individual addresses himself and replies to himself, the interest and attention shift from the social object and its gestures and turn to that which the gestures indicate, and to the attitude of the individual toward the thing indicated. In actual cooperative action with others in a group not only do the different individuals indicate to each other the objects of mutual interest, both to themselves in their attitudes [in] preparations for later conduct, but also they indicate objects about them that are involved in the cooperative conduct. In this conversation of gestures, as a rule, the other individuals remain of outstanding interest. Attention centers on them as social objects rather than on the gestures as such and their implications. In conversation with one's self the interest turns to the implications of the gesture rather than to the self as an object, though daydreaming with the self as the central figure on the scene may seriously interfere with attention given to a train of thought. Still, in general, the self that speaks in thinking and the self that replies are tenuous figures, and in highly developed thought they disappear entirely and reveal their implicit presence only by their implication of an audience which is essential to their own existence. The effect of this fading away of the self behind its conversations is inevitably to reduce the social character of the objects. Even other selves and one's own self become things, as distinguished from persons, for purposes of thought, though this abstraction is resented whenever the values that attach to persons, as distinguished from things, are considered. Another important result of the deflection of interest from the selves that enter into the inner conversation we call thought to what I have called the implications of these gestures, is the mechanism they provide for the analysis of the object and the reference of the parts of the objects as stimuli to the tendencies to respond which are aroused but inhibited in a situation that involves conflict. This relation of the stimulus to the tendency to respond does not in itself constitute significance. For this there must be indication of the relation, and this can appear in the experience of the individual through the indication to himself of the value of the stimulus.

The analysis of the object thus conceived must involve a corresponding analysis of the group of reactions by which the individual responds to the organized group of stimuli which constitute the object. This analysis of the individual's reactions at first goes no further than the analysis of the object into parts which are or can be parts of the immediate experience. This would bound the field of the contrivances and mechanisms which up to the seventeenth century provided the physical basis of civilization. The relation of mind and body up to this time presented no serious difficulties, in so far as the implications of immediate experience are concerned. The identification of the body as the organ of perception in reflective experience did not transfer to the self the characters and qualities of objects; for these characters and qualities were found in all the elements into which analysis divided the objects. There was a realm of sensuous things and of bodies endowed with sensitivity, and there was a realm of ideas, or forms or meanings, and of a mind which perceived them. It was only this rational soul that Platonism and Aristotelianism regarded as existing after the death of the body. The motives that led to the conception of the immortality of a soul capable of sensuous experience were found in the religious cults of the old world and the social problems which Christianity undertook to meet. It was the successful analysis of motion and matter by the physical dynamics introduced as a science by Galileo which brought into the world the modern problem of mind and body as a problem involved in the account which science gives of the physical world and
hence of the physical body as well. With this appears the doctrine of a consciousness which is not only the realm of thought but of all the qualities of immediate experience, which disappear under the scientific analysis of matter.

As I have indicated above, the body as an organ of perception is the field of a much larger part of the experience of objects than is the perceiving individual of immediate experience, if we undertake to state the experience of perception both in terms of immediate experience and in terms of a science that deals both with the organism and its environment; from the standpoint of the world of social objects, part of the object which is there for the perceiving individual of immediate experience is included in the self, physical or social. This part of the object which reflective experience includes in the experiencing individual but which is not there in immediate experience is, in each case, that of physical and social reflection, put into the self through the passage of the perceiving individual into the object, from which point of view the perceiving individual regards the self. It is the content of the experience which is then identified with the perceiving individual of immediate experience. I have described the process of social experience as that of taking the role of the other. The mental rehearsal of a conversation to take place at a later date is an example of this including a part of the object for immediate experience in the perceiving individual through reflection. For the perceiving individual in presenting himself, as he will respond to the man whose role he is taking in thought, identifies with himself the attitudes and responses which will be his when the conversationist addresses him. Such a self is dependent upon the hypothetical social environment within which it arises in so-called imagination. Its relationship to the perceiving individual is stated in terms of motives, faculties, powers, or impulses and instincts.

The hoary problem of the freedom of the individual is a problem of the relation of this self to the individual of immediate experience, and is logically of the same type as that of the relation of mind and body. For into this self is taken up all the objective social values, aesthetic, moral, economic, and logical. What an introspective psychological analysis does is to present the hypothetical conditions under which social conduct can go forward. As it states these conditions both in terms of the individual and of those involved with him in the same problematic situation, and as the elements into which the acts and their values are analyzed could not by definition have the imports and meanings which they possess in objective social conduct, these imports and values are carried over in the form of culture, subjective morality, subjective economic valuations, and subjective judgments of truth and error. For example, an economics or an anthropogeography which undertakes to show that certain results necessarily follow from certain conditions found in human nature inevitably refers to the consciousness of individuals and the voluntary acts by which men thought that they brought these events about. It follows that the mind with its reflective experience is taken up into the individual of immediate experience. The object of this experience is not simply that of immediate experience but includes also a reconstruction of part of the world of immediate experience. The reconstruction is hypothetical and depends for its validity upon later immediate experience. Insofar as it is identified with the self, it involves a reconstruction of the individual as well, for there has been a selective process going on in the mind. What is picked out of the analyzed object is dependent upon the interest and attention of the individual and upon the imagery which lies for the time being in his mind.

A successful result of the experimental experience means therefore not only a different objective world but a different self. The hypothetical structure both of object and of the individual is a schema which is universal in its implication, inevitably applicable in theory to the whole structure of the world of experience. If thought assumes atoms as the elements of the object, it must assume that they are the structure of all material objects, not merely of those about which the problem of thought gathers. Thus thought projects a world of atoms which it substitutes for the objects of immediate experience. To this degree it presents a world of knowledge which seems to take the place of the world of immediate experience—things that are known or thought, for things that are. An idealistic system argues that the success of the experiment in the world of immediate experience transfers the existence of immediate experience to that of thought, even when these thought objects lie beyond the realm of possible experience. In order that such an inference be drawn it is necessary to state the individual as a perceiving individual, that this play of atoms or electrons may affect him, even if the effect cannot be in terms of immediate experience. Such a world of atoms including both the objects and the individual actually eliminates immediate experience, as it sets up atomic structures for every part of immediate experience, including the relation of perception or existence. In other words it eliminates the experience from which it gets its assurance of existence. Nor is it possible to maintain that out of such a congeries of ultimate elements of things there has arisen such a world and such an individual that immediate experi-
ence appears, for there are certain contents of the objects which have by definition been transferred to the individual. These elements are the structure of the thing as determined by the interest and organized habits of conduct, the imagery which has been detached from the object and is significant of meanings which are denied and of meanings which may exist. Furthermore the biological organism conceived as the physical self, which can enter into complete relation with its atomic environment, is presented in contact terms, terms of a possible immediate experience for an individual with an organism fine enough to feel the resistances which even an electron possesses and in some way to sense its spatial relations. Its color, sound, etc., cannot be so sensed even by such an individual, for color, sound, etc., arise through the operation of electrons.

So far as we identify the individual of immediate experience with this biologic body so conceived, the secondary qualities must be placed in a consciousness. If we undertake to make use of the conception presented above, that the increased complexity of the structure of objects and of the biologic organism can give rise to new characters in the objects, we are forced to recognize that, while the conception of the world and the organism as made up of physical elements which in their elementary form could not by definition possess the so-called secondary qualities, dovetails well enough with the doctrine of a consciousness in which these characters as well as the contents of mind are placed, this conception of the ultimate reality of things does not readily conform to the assumption of radical empiricism that perceptions are things which are there without awareness. If these secondary qualities appear in the things as the result of their complex organization and are, as radical empiricism affirms, there in the objects, then the color, etc., of things which have arisen through their complex organization do not affect us directly. The effect is through the corporeal structure of things and of the body. If color is in the object, the theory of color perception will not account for its being perceived. From the standpoint of such a theory there is no place for the color except in a consciousness. If we put the apparatus of color perception in the physical body, there is no way of getting the color from the object to the individual. From the standpoint of immediate experience there is no need of getting the color over. It is simply there in the object and its being there for the individual is what is called perception—but not a perception that is stated in terms of physical theory. We seem to keep up an immediate experience in imagination of body as tactual and as resisting effort to occupy its own space or movement or change in direction of movement. The corpuscles are after all but smaller bits of matter of immediate experience though it is only by imaginary presentation they are as corpuscles brought into the range of immediate experience, but to account for our perception of their color and other so-called secondary qualities by this corpuscular structure in things and in the body leaves these qualities out of any relation with the perceiving individual of immediate experience. We must return to a consideration of what this theory of structure of things and the body and its attendant theory of sense perception mean for our immediate experience.

The self comes into existence as soon as the individual becomes an object to itself. This takes place insofar as the individual by its own response to physical or social objects finds itself stimulating itself to such a response as the object makes and besides this tendency to respond indicates to itself by gesture this response as the attitude of the object toward itself. In this fashion the individual takes the place of the object toward itself and thus becomes an object to itself in its own experience. The field within which the individual can take the place of the physical object toward itself is only that of contact experiences, including the reaction of motor response to these. When we have placed ourselves in the place of the physical thing over against ourselves, we do not see, hear, smell, or taste ourselves, but we do feel ourselves in contact with the object and with our effort expended in resistance. The other characters of things we are bound to state in terms of contact experience as it is only in the field of contact experience that we can become objects to ourselves directly.

The theory of perception undertakes to place the physical body of the individual in the field common to it and other objects which are perceived and to state the process by which the relations between objects and the individual arise and are determined. It is only the thing, in the place of which we can place ourselves, that can have an inside—an interior—and it is only in terms of contact experience that we can put ourselves in the place of the physical thing, since it is only the pressure that we exert upon physical things that calls out in us a pressure corresponding to that which things exert in us. A man pushing against a massive object arouses in himself such a tendency to heave against his own pressure that he puts himself in the thing. It is an other to him whose role he can take. Inevitably reality will be in terms of pressures and contacts, and other experiences of physical things will be stated as far as possible in terms of objects that occupy space and have inertia. It is true that
the exact measurements of objects and their motions is through the application of visible spatial discriminations to those of contact, and that the imagery of objects even lying beyond the range of possible vision is in visual form, but our judgments of reality places contact contents as the real elements behind the visual forms.

The function of the visual determination is found in the coincidence of the minute discriminations of a distance sense with the coarser experience of contact. That this distance sense should be visual is immaterial. Color differences are not of the nature of matter as is its extension; movability, and its inertia. The vast importance of the dynamic doctrine of nature lies in the fact that an exact statement of inertia can be made in terms of velocity and its acceleration. It is this method which has enabled us to state in terms of mass and motion the other characters of body except those of contact experience. If we abstract from the epistemological problems that have occupied philosophy since Descartes, the function of a theory of perception has been such a statement of the physical organism and the physical world that it will be possible to give an explanation of all the characters of experience in terms of mass and motion, that is, in terms of the qualities which arise in contact experience. Stated in the terms used earlier, this comes back to using that experience in which the individual arouses himself, the response which he calls out in the other thing—physical or social—as the fundamental reality in terms of which other phases of experience are to be stated. The importance of this is found in the fact that in this experience the individual becomes an object, over against other objects; or, better stated, other things become objects with such a content that the individual becomes also an object. This content we have traced to the individual himself taking the attitude of the other, whether physical or social. Insofar as the individual takes the attitude of the other, he is playing the role of the other, and in this attitude can regard himself. This attitude becomes effective in conduct only insofar as the gestures of the individual indicate to himself as to others the relation of this essential content to other phases of experience which it is to explain. Thus in social experience, the tendency to respond as the other in answer to one's own stimulation—e.g., the play of the child, in which he stimulates himself as a child to respond as a mother—gives him the reality of the other as well as that of himself. But it is the language in which he indicates himself as a child or himself as a parent, to himself, which enables him to present both social objects in their relationship to each other, and thus gradually to explain the one in terms of the other. The child comes back to the essential character of selfhood in each—of personality—in the family group, as the basis of explanation. The indication of the dependence of all conduct and attitude upon this selfhood is the explanation. In the same fashion one indicates to himself the dependence of all qualities upon those of contact.

The other important phase of the theory of perception is found in the relation of the contents found in perception to the perceiving individual. These contents are the qualities of things regarded in their relation to the organs of perception and the things themselves considered as made up of the finer elements—the corpuscles—which do not themselves appear in immediate experience; this attitude toward the qualities of things obtains not only for the so-called secondary qualities but also for the primary qualities so far as these appear in the immediate experience. Immediate experience cannot be of the finer elements of things by definition. The distinction between the secondary and primary qualities lies in the fact that our assumptions present physical objects made up of corpuscles which occupy space and have inertia—that is, the characters which we find in objects of immediate experience, though the elements are so minute that they cannot affect the organs of sense, while the secondary qualities of things cannot belong to the corpuscles since they are assumed to be the resultants of changes that are due to the corpuscular structure of things. Secondly, in the perception of things we find the images which are assumed to be dependent upon past experience, and to arise in some sense because of the excitement of those parts of the nervous system which have been affected when those past experiences took place. These images are identified with contents which go into the perception of things in immediate experience, and as such are in the things in immediate experience. The theory of perception dislodges them from things insofar as things are stated in terms of corpuscular structure which are not found in immediate experience. Thirdly, characters of things are found which are of an affective nature, that in immediate experience may be in things and may be placed in the self. A thing may be pleasant or the pleasure may be in the individual self. The object may be hateful or lovely, or the emotions may be located in the self. The theory of perception places all these characters in the self, finding in the things only structures which directly or indirectly arouse in the individual the affective states.

Fourthly, it must include those meanings of things which do not attach themselves to objects insofar as they are regarded as belonging
only to a world with a corpuscular structure. These would include all the meanings of things except those which could be stated in the mechanics of the interrelations of the organism considered as a molecular structure among other molecular structures. This would take us from the percept to the concept, but no hard-and-fast line can be drawn between the percept and the concept. It is evident that the theory of perception arises to account for the contents which a corpuscular doctrine of the physical world and organism take out of the immediate experience. It is a necessary outgrowth of the dynamic theory applied to the structure of matter. The second point of general interest from which this theory of perception should be considered is its relation to the perceiving individual. This physical theory of existences recognizes certain elements and their combinations that are there. It assumes to start from the problems of immediate experience and to infer from what takes place there to the truth of the hypotheses of the corpuscular structure of matter. It is, indeed, possible to state the spatial and temporal characters of the elements of matter, as well as those involved in their inertia, in terms which abstract from immediate experience, using definitions which refer to the elements and their changes, without involving any of the contents of an actual or imaginary immediate experience. In this case, these elements would be in some sense thought but would not be presented. As I have indicated above, this is not necessary for the hypotheses of science, which are dealing with objects which are but finer divisions of the matter of our contact experience. They are reductions of the physical objects of our immediate experience, but so far as they occupy space and move and have inertia they do not differ in nature from objects about us. The scientist who is actively engaged on the frontiers of science uses them as simple smaller particles of the matter of immediate experience, minus the characters of which his definition deprives them. Over against these particles of matter stands the imaginative scientist as an immediately perceiving individual.