

are many of them, forms the inexpugnable datum of thought. It is the givenest of givens, *datissimum datorum*. Thought does not seem to have anything to do with the making of it—although the idealist has another account of the matter. Nor can thought do much⁸ in the way of changing these *datissima*. Not only do they constitute the prime starting-point of all scientific problems, but they retain their pristine character throughout the thought process and after thought has done its perfect work. While ideas and data of a secondary order play their game of hide-and-seek with each other, these data of the first order are in the game, but not of it. They give to one lunar hemisphere a primacy which no terrestrial thought-reorganization can give to the other. Now a philosophy which keeps close to experience can not well ignore this distinction between the two kinds of data. Bow the difference out of the front door by refusing to recognize it under its old style of difference between sensation and idea, and it will come in at the back door unnamed, but no less obtrusive. Can logic afford to ignore it? If it does not ignore it, can pragmatic logic fix it somewhere, mid this dance of plastic circumstance which it portrays so well, but which the old logic would fain arrest; can it fix it there without giving up the thorough plasticity of circumstance?

EVANDER BRADLEY MCGILVARY.

UNIVERSITY OF WISCONSIN.

CRITICAL REALISM AND THE TIME PROBLEM. II.

IN a previous article I sought to show that real time is identical with change in a self-conserving process; that the puzzle of permanence or identity and change no longer balks advance when "process" is made the prime category; that a complete reversal of outlook in modern times makes the adoption of a "process view" imperative and forces us to discard an identity based on static permanence and to substitute, in its stead, organization—organization which is maintained immanently and which is neither changeless nor an entity; also that change is greater the more intricate, differentiated, and complex the organization.

I wish now to indicate how such a position can be used to explain the individual's time-experience and time-construction. Before I attempt the explanation of this extremely difficult problem, however, I would like to make as clear as possible the theory of knowledge bound up with, and supporting, critical realism. The

⁸How much thought can do in this matter is an interesting question which we can not enter into here.

connection of the individual with the larger process of which he is a freely-moving part must be realized before the conclusions of the first article can be seen to have definite bearings. Since, then, comprehension of the ensuing discussion of time will depend in large measure upon a grasp of the main principles of critical realism, I state these principles, and as concisely as is compatible with clearness.

First, the individual's experience is a changing "microcosm"; and logic is concerned with the study of processes within this "microcosm," especially with the inferential relations among things-experiences and with the development and significance of meanings and distinctions, such as, physical and psychical, matter and consciousness, etc. In short, logic is not metaphysics, but clears the way for metaphysics, and is not directly interested in solipsism or pluralism. Logic "might well be written from the standpoint of solipsism." Elsewhere I have protested that a large share of the new realism is a logical realism which has at last overcome the confusions due to the special view-point of psychology.

Second, the protest of Professors Taylor, Dewey, Bawden, and others, that the mind-body relation is a methodological problem, more or less an artifact, holds against the reification of such contrast-categories as the physical and the psychical, matter or energy, and mind. These dualisms are developed in the impersonal logic of psychology and physics and have a methodological, not an ontological, import. On the other hand, the relation of the individual's experiencing to the rest of him which we call his body, as a part of reality, is *the vital metaphysical problem and the key to critical realism*.¹

Third, in order to understand critical realism, the individual's experience must be viewed as incarnated in his body looked upon as an existence functioning in relation to other existences. I have designated this view a *functional identity* or *variancy* view; and, by showing that experience is not a "stuff"—since it is not con-

¹ Since my solution of the mind-body problem emphasizes the reactive unity of the whole individual, just as Professor Dewey's does, a statement of the main difference may be worth while. This can best be brought out in connection with the note (p. 65) in his essay in the James "Festschrift." "It is interesting to note how the metaphysical puzzles regarding 'parallelism,' 'interaction,' 'automatism,' evaporate when one ceases isolating the brain into a peculiar physical substrate of mind at large and treats it simply as one portion of the body, as the instrumentality of adaptive behavior." This is distinctly the objective, biological, outlook, and might well have been written, say, by Jennings. Instead of passing through and beyond subjectivism to an adequate conception of the individual, Professor Dewey has taken refuge in the impersonal objectivism of science.

served—I have tried to prove that this position does not conflict with the conservation of the capacity for activity on the part of reality (conservation of energy).²

Fourth, the condemnation of experience-in-general and the assertion that experience is always an individual's experience and connected with a body, lead to a frank pluralism in regard to experiencing. Individuals have distinct experiences, just as they have different bodies. Their bodies are, however, in dynamic continuity with each other and with other existences.

Fifth, the terror of solipsism is absolutely uncalled for and results from idealism reenforced by the "states of consciousness" fallacy and by a false conception of knowledge. Let us frankly recognize, as *e. g.*, Cornelius does and as James used to do, that we can not have another's experience actually, any more than we can *be* a stone or a tree. I am afraid that philosophy has often lacked the courage to face squarely up to facts and has, thereby, missed the chance of solving her problems. A genetic study of how our knowledge of others is obtained—showing how it depends on the interpretation by each of the ways of acting of the bodies of other people, including here the vocal organs—would have led to a correct idea of what knowledge means in this case, and would have prevented the puzzledom called transcendence of experience, which critical realism is supposed to require. The discussion of ejects would take on a healthier tone if the genetic attitude were adopted. I sought to do this some time ago and arrived at an interesting result; viz., that another's body becomes an eject, just as his experience does, and that the two always go hand in hand.

Sixth, the transcendence of an individual's experience—obviously I will have nothing to do with such a phrase as transsubjective reference—which has perplexed so many, is a pseudo-problem. In the first place, experience is looked upon semi-spatially when transcendence is talked about. This is the curse of a still-lingering "states of consciousness" outlook. One is supposed—in a dim, groping way—to perform a magic act; a jumping out of one's spiritual skin is hesitatingly invoked. In the second place, *knowing* an existence is regarded as a sort of *being* that existence, or, at least, a mental hand is conjectured to touch the existence with a ghostly, yet reassuring, caress. A study of *experiencing* as incarnated in the body, as an expression of the body in its dynamic relations with other existences, would have led to an apprehension of the unreality of the problem. The correct and illuminating questions are: What is the function of experience? What can it be expected to tell us of the existences around the body? I recognize how important this

² Cf. *Psychological Review*, July, 1908.

problem is, if critical realism is ever to shake itself loose from the worrying attacks of idealism and to become more than a bewildered protest. I believe that experience tells us the function, structure, and relations of existences, and that, in doing this, it is not compelled to transcend itself. My present purpose forbids me to enter further into this field at this time.

This is my *credo*. I hope it may give the setting of the individual, which is needed.

When this view of the individual as a highly organized process in dynamic continuity with other processes in various grades, and kinds, of organization is once grasped, the time problem speedily takes on a new light. Change is characteristic of the individual, but so is organization and the conservation of past activities which it implies. Now, if change appears in experience as time-perception, may not time-construction represent the side of conservation and organization? Though consciousness can not abolish change—for that, as Hobbes saw, would be suicidal—its survey becomes more and more comprehensive. Experiencing, incarnated in the individual, reflects this organization in systems of meaning, values, and time and space constructs. This inevitable parallelism can not be understood if the alienness of consciousness to the body is held. It is in this sense alone that Bosanquet is right when he says, “the consciousness for which there is time has begun a process which tends to abolish time.”³ Experience, like reality, has, as we would expect from our position, the two aspects of change and relative persistence, but in neither case does this fact imply permanent entities, whether “bits” of consciousness or “bits” of matter.

The psychology of the movement from perceptual to conceptual time, I shall, in large measure, take for granted. We construct nature in time after the same fashion that we construct it in space. Since man has the power of initiative, *i. e.*, is free moving, he is able to bring himself into relation with various parts of reality and is thus empowered—given his reasoning and constructive or organizing faculty—to establish controls to aid him in a larger and more perfect activity. I refer to maps and knowledge of topography as well as to inventions, such as motors, railroads, etc., which consist in the use of the functions of existences in a directed way. In like manner, there is every practical reason for him to throw his experiences into the order in which they occurred and thus to erect an objective (logically objective) system which seeks to correspond to the course of the reality-process itself. The need of bringing his past experience to bear upon present problems puts a premium upon this endeavor. Recent discussions of causation have emphasized

*“Logic,” p. 267.

this practical motive almost *ad nauseam*. When the conceptual world of succession outreaches his own memory, the persistence of "form" in reality is fruitfully employed by inference; fossils, strata, historical documents tell their tale to the individual's inquiring mind. Communication with others, the reading of books, the whole social tradition, thus achieved, give aid.

There can be little dispute about the above sketch of our space and time construction. The disagreement will most likely arise in regard to its metaphysical interpretation.

Memory, as Hering has well shown, must have its basis in the nature of reality (he as a scientist speaks of matter). But memory in reality, as we saw in the first article, is identical with persisting organization; and man's memory is not a resurrection of a dead past, but a *function of actual organization as conserving past functioning*. This view is made evident by the fact that disorganization or dissociation involves loss of memory. I shall presume that every one to-day admits that memory is not a resurrection of a past experience as such. Here, as elsewhere, it is seen that stereometrical organization dominates over any linear idea of time in reality.

It were well, at this point, to notice that the "present" has two meanings in experience, which are constantly confused. As the "specious present," it represents the grip of attention, the relative persistence of functioning. Within this specious present—which, by the way, requires no synthetic ego for its explanation—differences exist which become clearer upon analysis and may then be designated "contrast-meanings" of succession. These are the "now," "no longer," and "not yet" of current psychology. Any sharp distinction between perception and conception tends to produce an unreal problem here; for, just as our ordinary perceptual space is now tinged with the more conceptual space of science, so perceptual time seldom has its naïveté. Immediate experience must be our refuge. As we grow older, whether as a race or as individuals, we live in a larger world, spatially and temporally. This means that in our reflective consciousness an objective time-order has arisen, freed so far as possible from distorting perspective, and that, within this time-construction, the present, not as an undissectable moment, but as a chosen series of events, has contrast-relations with a past and a future. Such a past or a future is as real as the present contrasted with it, so far as presence within my experience is concerned. Yet all the while these times are objects of thought within a continuously changing "specious present." Since, in ideational thought, our interest is not directed towards the transitions of our experience as such, but towards the ideas, and since these ideas are of wide scope and fairly stable import, the awareness of change is

not prominent as it is in more distinctly perceptual experiences, as, *e. g.*, in rhythms. "Every experience thus holds in suspense within itself knowledge with its entire object-world, however big or little."⁴

This tremendous complexity of immediate experience has often led idealists astray. Bosanquet and Taylor furnish good illustrations of this error. Their discussion of causation, in which they seek to identify cause with complete ground, and thus exclude temporal relationship between the cause and effect, is shot through with this misapprehension; as is likewise all reification of logical validity. Idealism can not escape the flow of immediate experience itself; change, transition, variancy must be acknowledged. Because certain aspects of time on the ideational level can best be studied in connection with causation, and because, moreover, they do not affect our main conclusions, I shall postpone their treatment until I take up critical realism in its relation to causation.

Certain philosophers have maintained that the future is in some sense real.⁵ This position may depend on a confusion between the present as the specious present and the present as a contrast-meaning in a time-construction; but it usually arises from an interest in an absolute for whom time, as we experience it, is appearance. Now critical realism has no absolute experiencer, and so this problem does not arise for it. Critical realism also escapes the puzzles of a world teleology, which theology always tangles herself in. To say that the future exists *now*, would be a contradiction for which there is no motive in naturalism. Much more effectively than pragmatism, because squarely and candidly, does a plastic naturalism meet pseudo-problems. No support can be obtained for the future in the reality-process which includes the individual; for, in this realm, time is identifiable with change, and even the word "present" is metaphorical and signifies the organization existing during a given rhythmical movement. Space and movements in space dominate the formation of objective or common time.

Is time, then, mere appearance? Certainly not; this term has no metaphysical, but only a logical, significance for critical realism. The vital distinction for this latter is the experience of the individual in contrast to reality as a larger process which includes this individual. No note of depreciation enters into this contrast, such as enters into that of appearance and reality, so popular with absolute idealism. The individual must be and remain the point of departure for critical realism, but an individual whose tremendous complexity and scope are no longer forgotten.

R. W. SELLARS.

UNIVERSITY OF MICHIGAN.

⁴ Dewey, "Reality as Experience," this JOURNAL, Vol. III., p. 253.

⁵ V. Taylor and Royce.