II

THREE THEORIES OF MIND

I. MIND AS PROCESS

In discussing Hegel, it was observed that one phase of Hegelian philosophy leads into the view that mind is a self-evolving process. This doctrine of mind as a process whose content is the world has become more and more dominant in the idealist philosophy and may, in fact, be taken as the central doctrine of the idealist philosophy of mind. The absolutistic element that is prominent in Hegel, that is, the refusal to take time seriously by considering the development of mind to be logical and not temporal, has gradually given way in all countries to a more genuinely activistic interpretation of the mental life, which has not, however, sacrificed the emphasis upon the autonomous character of mind. "Idealism," Gentile writes,¹ "is the rejection of any reality which can be opposed to thought as independent of it and as the presupposition of it." To exhibit the idealist theory of mind more completely, it will be well to glance at the earlier post-Hegelian type of theory as it is revealed in Bosanquet, and the most recent form of the theory as it appears in Gentile.

Bosanquet, like Hegel, reveals a passion for concreteness and continuity, and a dislike for all dualistic modes of interpretation. Influenced by admiration for the integral whole-

¹ The Theory of Mind as Pure Act, p. 18. General statements of the idealist position may be found in G. W. Cunningham's Five Lectures on the Problem of Mind, and H. W. Carr's article on "Idealism as a Principle in Science and Philosophy," found in Muirhead's Contemporary British Philosophy, vol. I.

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ness of the life of the Greeks, there burns beneath his words a constant love for the whole of things. This sense of the whole was clarified for him in the experiences of art, and morality, and religion, which become foretastes, as it were, of the systematic absolute whole that reveals itself through finite centers, but which in itself is a realized total perfection. The finite centers can only approach this perfection of wholeness but cannot attain it in its completeness.

The same duality of emphasis upon realized perfection and temporal development appears in Bosanquet that appeared in Hegel. Although for Bosanquet change, like morality and religion, is ultimately only finite appearance, since “the whole cannot change,”1 nevertheless, in the desire to keep the reality of moral struggle and to do full justice to the finite, Bosanquet insists upon change within the whole. “The whole,” he writes,2 “is such as on the one hand to include change, and on the other hand not to break away from totality.” While it cannot be said that Bosanquet succeeds in reconciling perfection and development, it is in the tendency toward the development of greater wholeness that Bosanquet’s theory of mind is to be found.

On this theory, “mind has nothing of its own but the active form of totality; everything positive it draws from nature.”3 He therefore insists upon the “continuity of the real world with mind:”4 “thought moves in the world of real objects, and has never come out of it.”5 “There is nothing to be called ‘the mind’ of which there are empty acts exercised upon objects,”6 for “the mind is a number of things growing,

1 The Meeting of Extremes in Contemporary Philosophy, pp. 176, 177.
2 Muirhead, op. cit., p. 73. This whole essay on Life and Philosophy gives an excellent approach to Bosanquet’s thought.
3 The Principle of Individuality and Value, p. 367.
4 The Distinction Between Mind and Its Objects, p. 49.
5 Three Chapters on the Nature of Mind, p. 113.
6 Ibid., p. 20.
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interworking, progressing," "On all sides," he writes,¹ "there is a convergence on the conception of mind as consisting of what it does and experiences." "Thought which deals with no given, and constructs no order is a res nihili."²

While insisting that mind cannot be divorced from the world, Bosanquet insists equally strongly that the world cannot be divorced from mind. In good Hegelian fashion he argues³ that "all that is an object of thought is ultimately a constituent of it," that "thought is a total and continuous judgment which sustains by affirmation the world of reality," that even an experience of blue "must have in it the life of mind,"⁴ that "there can be no concrete whole but a whole centering in mind,"⁵ no world without "consciousness as its centre."⁶

It is evident, I believe, that Bosanquet's theory of mind takes two directions. From one point of view, mind practically becomes the active aspect of experience, the tendency to the formation of more and more comprehensive wholes. It is while thinking in this direction that Bosanquet talks of the "energy of thought" as "the nisus to the whole."⁷ But as the above quotations show, Bosanquet not only makes mind the active aspect of totality, but explicitly identifies mind with "the conditions of totality."⁸ Mind is then not merely the active aspect of reality but is somehow the very condition of reality. On the first type of treatment, the

¹The Meeting of Extremes, etc., p. 25.
²Muirhead, op. cit., p. 60.
³The Meeting of Extremes, pp. 23, 22.
⁴The Distinction Between Mind and Its Objects, p. 33.
⁵Ibid., pp. 39, 40.
⁶Ibid., p. 58.
⁷Three Chapters on the Nature of Mind, p. 70.
⁸The Distinction Between Mind and Its Objects, p. 44. Hoernlé does not discuss this aspect of Bosanquet's theory in his treatment of Bosanquet in Idealism as a Philosophy, pp. 236-243, 264-267.
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Absolute, as the whole, could have no nisus to wholeness and could not be regarded as mind; on the second type of treatment, if every whole must center in mind, the absolute whole may be regarded as an absolute mind. In one case mind is an aspect of reality; in the other it is reality. It is undoubtedly possible to reconcile these two aspects of Bosanquet's treatment. They have been separated only in order to focus attention upon the fact that the view of mind as process need not be carried to the position of the idealist that the world ultimately is mind.

With Bosanquet's refusal to separate mind from the world few contemporary philosophers would quarrel, but many would hesitate to agree that the world needs mind as its center and as its condition of self-existence. What argument can the idealist use to support his contention that the world is mind-dependent? Bosanquet makes very little use of the older Berkeleyan type of argument that nothing can be experienced or conceived without thereby relating it to a subject. Such considerations show merely that nothing can be experienced without being experienced, and do not show that all reality must be experienced to exist, or that the experienced object is mental.¹

Bosanquet's argument, in so far as it can be called an argument, seems to be based upon the relativity of observed content to the observer. To the "open-door" policy of the new realism Bosanquet replies,² "your organism, which you cannot separate from its mind, is one of the conditions which things require for the manifestation of their complete being."

¹Perry's discussion of this argument under the name of the "ego-centric predicament" has served to focus the question, even though the logical fallacy of accident is all that is involved. See discussion on pp. 129-132 of his Present Philosophical Tendencies. Hoernlé, op. cit., p. 114, seems to accept the brunt of Perry's criticism.

²The Distinction Between Mind and Its Objects, p. 48.
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In this retort, it appears that Bosanquet is regarding relativity to the observer as a case of relativity to mind. This same type of argument is employed by certain idealists who attempt to use the theory of relativity as support for an idealistic metaphysics. This argument, however, has no force unless one is already committed to an idealist theory of mind, for it does not necessarily follow that reality is mind dependent even though the experienced world be dependent upon the organism. A holder of a relational theory of mind could regard experience as dependent upon the organism, but regard mind as dependent upon these experiences rather than the experiences dependent upon mind. Similarly, the pragmatist is often inclined to regard experience as dependent upon the organism without feeling any compulsion to subscribe to the idealist theory of mind. Not merely does the idealist argue invalidly from the ego-centric predicament, but is also liable to confuse the relativity of experienced content to the organism with the dependence of this content upon a mind. A consideration of the relativity involved in the operation of a camera should help to show the possibility of other interpretations.

The main approach of the idealist to the problem of mind is, however, metaphysical rather than analytical. Before glancing at the problems which this metaphysics proposes, it may be well to look at its development in the contemporary Italian philosopher, Gentile, who has even accentuated the reaction against the static aspects of idealism which is found in Croce. Gentile's idealism regards reality as a concrete universal mind which generates all objects from its own activity. Thinking is the whole or absolute reality, "provided we mean transcendental and not empirical thought."¹ Gentile's idealism is essentially dynamic and opposed to the

¹*The Theory of Mind as Pure Act*, p. 5.
slightest remnant of even a mental substance. Mind is "pure act" and "has no existence apart from its manifestations." His view "resolves the world into spiritual act or act of thought." "In so far as the subject is constituted a subject by its own act it constitutes the object." As applied to the individual this means "I am only in so far as I think." That is, the mind does not exist as a substance before its act, but the mind as subject becomes a reality at the same moment that it constitutes its object a reality. In summarizing his position Gentile writes that "mind, the spiritual reality, is the act which posits its object in a multiplicity of objects, reconciling their multiplicity and objectivity in its own unity as subject. It is a theory which withdraws from mind every limit of space and time and every external condition."

In Gentile's position the theory of mind as process has perhaps reached its most extreme position, so we may merge our criticism of his position with the discussion of the process theory in general. A universal developing its identity through change presents serious enough difficulties, but a conception of mind as a pure act producing itself and the world in an eternally self-creative process, free as it is from the last traces of a substantive metaphysics, seems to border on the incomprehensible. A pure act, an act that is not the act of something but rather the act by which an actor appears, seems to be almost a pure nothing.

It is true that there is much loose talk in popular discussions of science that seems at first sight to substantiate such an unsubstantial position: we are told that the atom is only what it does, that an electron would become nothing if it

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1 Ibid., p. 20.
2 Ibid., p. 265.
3 Ibid., p. 18.
4 Ibid., p. 100.
5 Ibid., p. 241.
could be stopped, that the substance of the atom therefore depends on its motion, that matter has been reduced to pure force or pure energy. But a critical science must recognize that such statements are merely vivid forms of speech. No critical physics can talk about pure force, for force is itself defined through the change of the condition of a physical body. A body that increases its velocity or acceleration or direction of motion is said to be acted upon by a force, but the force is precisely the change of velocity, acceleration, or direction of motion and not a pure force that produces the change and creates the body. Force and energy are ultimately adjectives descriptive of certain aspects of the experienced world, and not nouns representing either ultimate substances or pure acts. And as for the claim that the very being of an electron is dependent upon its motion, it must be remembered that in the theory of relativity any particular body can equally well be regarded as at rest or in motion. So if science wishes to keep both propositions it must say that atoms considered in motion constitute the substance of the world, but since any particular atom may be considered at rest, the substance of any particular body can also be regarded as nothing. This conclusion may interest the speculative thinker who wishes to avoid the very real problems that the atomic theory raises, but the proposition that the ultimate somethings are equally well ultimate nothings can hardly be said to represent a tenable scientific position. Questionable metaphysics is not to be accepted merely because its origin is labeled “science” instead of “philosophy.”

Similar considerations apply to pure activity. While we may legitimately talk descriptively of concrete situations manifesting activity, we cannot regard the situation as produced by the activity. Although a subject cannot be regarded as a substance separate from its activity, the activity cannot
be regarded as a pure activity which constitutes the subject. Substance cannot be separated from activity nor reduced to activity. The only mind that is known empirically is active but not pure activity, and what is true of empirical thought must be true of transcendental thought if the use of thought in this latter connection is to have any meaning at all.\(^1\)

The doctrine that the world is ultimately mind or spirit (and the idealist does not often separate the two categories), due to its historical associations, seems to remove the harsh foreign aspects of reality, to reduce the world to material for the satisfaction of man's own longings and aspirations, to awaken, in short, a combination of humanistic and religious emotions. Whatever may be said of this emotive appeal, it is very doubtful if the proposition "the world is nothing but mind," or the proposition "the world is nothing but matter," has any genuine philosophical significance, for in either case the same further distinctions must be made: on the one hand it is necessary to recognize the distinction between a stone and the thought processes of man, only the distinction is called a difference of levels within mind; on the other hand it is also necessary to recognize the distinction between a stone and the thought processes of man, only now the distinction is called a difference of levels of matter. If it be maintained that the difference in attitude between mentalism (which has been but need not be the position of idealism) and materialism is the difference between assimilating the lower to the higher or the higher to the lower, it may be doubted if either assimilation is possible, since both sides must admit that the higher manifestations are inseparable from the lower and yet must be distinguished from

\(^1\)A defense of the position that "thinking, the pure act, is original and the thing thought is derived" may be found in Carr's article, p. 116, of vol. I of Muirhead's *Contemporary British Philosophy.*
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the lower. With the appearance of the doctrine of emergent evolution, the old controversy between materialism and mentalism bids fair to lose both its significance and its existence.

In summary, idealism, with its theory of mind as process, as systematic development, has forced philosophy to recognize that mind cannot be separated from the world of nature, that mind is more than a mere collection of separate units or a passive receptacle, and finally, that mind cannot be reduced to the other phases of reality. It may be agreed that no theory of mind which does not profit by these results will prove to be adequate. However, in avoiding the dualism between thought and sense, mind and nature, experience and reality, idealism over-generalizes its case in regarding mind as the sole reality. Not merely is this position open to the criticisms that have already been suggested, but such a wide use of the term mind throws no light on the specific problems that were suggested as valid criteria of a theory of mind. It gives no insight into the phenomena of language, no appreciation of the mathematical type of thought, no concrete discussion of the empirical reflective process, nothing but the general hint of development in approaching the anthropological and evolutionary phases of mind. In its intoxication with the emotional reverberations of the term mind, idealism is in danger of remaining content with general propositions concerning mind. Its very passion for metaphysical concreteness may reveal itself in an inverse contentment with empirical emptiness.

II. MIND AS RELATION

It was inevitable that the idealistic attempt to interpret reality in terms of mind should meet with strong opposition from those thinkers who voiced the aspirations of the modern scientific attitude. It was out of this opposition that
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the realistic and pragmatic movements of philosophy emerged, the realists being on the whole influenced by the physical and mathematical sciences, the pragmatists by the biological, psychological, and social sciences. With historical relations to Hume, and influenced by Brentano and Meinong, there grew up in England about the beginning of the present century the movement known as the new realism, well exemplified in G. E. Moore. In America, with lines of influence from Mach and Renouvier, there grew up around Peirce and James a reaction that developed both in the direction of new realism and in the direction of pragmatism. For the time being we will consider only the new realistic position.

Under the general doctrine of the externality of relations, the new realism claimed that things pass in and out of relations unchanged, and that they therefore passed in and out of the relation to mind without change. Because things can only be known by being brought into a cognitive relation does not prove that only known things exist; because human thought can only deal with experienced things does not mean that these things as experienced are not independent of their being experienced. The new realism therefore passes to the position that what is known is non-mental and is independent of its relation to mind. What then is the mind?

Two tendencies in the interpretation of mind appeared in the movement: first, the attempt to regard mind as an “act” of awareness whose content is non-mental. This separation of mental act from non-mental content is characteristic of G. E. Moore and the British new realists, and will be discussed in another connection; and second, the attempt by the American new realists and later by Bertrand Russell to conceive of mind as a relationship between things not in themselves mental. It is this relational approach to mind that must now be considered.
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A typical position is found in Holt, who regards mind as a grouping of objective entities, not a substance in which thing are, nor a process in which things become what they are. Even illusions are interpreted as physical and objective. Consciousness "is not in the skull, but is 'out there' precisely wherever it appears to be." Mind or consciousness "is a cross-section of the universe, selected by the nervous system. The elements or parts of the universe selected, and thus included in the class mind, are all elements or parts to which the nervous system makes a specific response." "Consciousness is, then, out there wherever the things specifically responded to are." Perry's position is influenced by, and very similar to, Holt's position, in that he regards mind, and also matter, as groupings of neutral entities. Since the same contents may appear in various groupings, minds may overlap, so that instead of being subjective, "mind is open to mind."

Other of the American new realists take somewhat different approaches. Montague holds that "all matter is instinct with something of the cognitive function . . . every objective event has that self-transcending implication of other events which when it occurs on the scale that it does in our brain processes we call consciousness." "Consciousness is the potential or implicative presence of a thing at a space or time in which that thing is not actually present." Pitkin, using an analogy from projective geometry, regards the field of consciousness as a projection of the environment (the projected complex) upon the reacting organism (the projectorial referent). But whether regarding mind as a group-

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1 *The New Realism*, p. 353.
2 Ibid., p. 354.
3 *Present Philosophical Tendencies*, Chap. 12.
4 *The New Realism*, p. 283.
5 Ibid., p. 281.
6 Ibid., pp. 443 ff.
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ing of neutral entities, or an implicative presence, or a projection field, the new realists unite in agreeing that mentality is not a characteristic of things in themselves, but of things only in relation to the reacting organism. There is no mind apart from things in relation.

On the relational view of mind, as on the idealistic view, the content of mind is the content of the world. Unlike the idealist, however, the new realist regards no content of mind as dependent upon mind for its reality. Since not even a mental act is admitted by the American new realists, logic and mathematics cannot have anything mental about them. Mathematical propositions must be part of the content of the world which can enter into the mental relation; they must be discovered rather than created. Marvin tells us¹ that the proposition "2 + 2 = 5" was false fifty million years ago. The new realism has been forced to adopt a Platonic realm—*the realm of subsistence—to house the contents of logic and mathematics. In a similar manner, error, hallucinations, and illusions must be regarded as non-mental, as objects rather than products of mind.

We may pause a moment to envisage the difficulties in regard to error which this view encounters. Holt regards error as simply the beholding of objective error, truth the beholding of objective truth, where objective error is regarded as objective contradiction.² In spite of Holt's specific consideration of the point at issue, few thinkers have been able to convince themselves that the objective world can rightly be said to exhibit "contradiction," a term which seems to apply more to the realm of discourse than to the relations between things. To explain error, Perry, Mon-

¹ Ibid., p. 53.
² Ibid., p. 35.
³ Ibid., p. 357 ff.
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tague, and Pitkin frankly fall back upon some form of dualism: Perry\(^1\) insisting upon the possibility of selecting neutral events to produce a "subjective manifold" that may differ from and be mistaken for the groupings which make up the physical world; Montague\(^4\) regarding error as due to the uncorrected "distortion" somewhere introduced into the physical process of being affected by external things; Pitkin\(^3\) interpreting error as being due to entities that are "projectively indiscernible," that is, to regarding a present content as being projected by an object which is not really "projecting." While all of these views present difficulties that cannot be considered in the present connection, it may be noted that the attempt to separate error from mental processes is fraught with difficulty, and that the introduction of some dualism within the world makes it difficult to maintain that the world as present is the world as it is, for if things always are as they appear to be, error is impossible. In attempting to explain error the new realist is in danger of giving up his cardinal principle. Pitkin frankly says\(^4\) that the view that "consciousness is the mere knowing of physical things as they are 'in themselves'" is a "naïve doctrine." On the basis of such statements, it is safe to say that within the new realism itself appeared the seeds out of which the temporally later movement, critical realism, was to grow.

The most thoroughgoing relational view of mind is found in the new realistic stage of Bertrand Russell's philosophical development. Renouvier, whom Höfding has called "the patriarch of contemporary philosophy," passed through a

\(^1\) *Present Philosophical Tendencies*, pp. 324, 325.
\(^2\) *The New Realism*, pp. 286-300.
\(^3\) Ibid., p. 459.
\(^4\) Ibid., p. 463.
phenomenalistic period in which he banished any substance underlying the given world, thus making the phenomenal world the very stuff of reality, antedating all distinctions between subject and object, perceiving and perceived. Similarly, Mach based his doctrine upon a pure phenomenalism, claiming that the data of physics and psychology are the same in content, and differ only in the relations of this given content. The physical and the mental are determined by different systems of elements, not by different elements. "A color is a physical object as soon as we consider its dependence, for instance, upon its luminous source, upon other colors, upon temperatures, upon spaces, and so forth. When we consider, however, its dependence upon the retina . . . it is a psychological object, a sensation." Sensations are not in the head, rather the "'head' shares with them the same spatial field." "There is no rift between the psychical and the physical, no inside and outside, no 'sensation' to which an external 'thing' different from sensation, corresponds." "The world of sense belongs both to the physical and the psychical domain alike." Mach has thus substituted a thoroughgoing phenomenalism or radical empiricism for the dualism of the Galilean-Cartesian-Newtonian world-view.

Mach has been mentioned because although Russell's position is not phenomenalistic, it shares with Mach the doctrine that mind and matter are but different relations between elements that in themselves are not mental nor material, and

3 Ibid., p. 27.
4 Ibid., p. 310. The definition of mind in the existential psychology is given in words that could have been written by Mach. Thus Titchener defines mind as "the sum total of human experience considered as dependent upon the nervous system." (*A Text Book of Psychology*, p. 16).
the doctrine that psychology and physics do not deal with objects that differ in substance.

For Russell the ultimate aspects of reality are what he calls “events,” which are happenings finite in all dimensions. The clearest examples of events can be taken from the realm of percepts—sounds, flashes of lightning, and the like. On various grounds Russell is led to postulate other events besides percepts. Events are so related that one event is connected with other events in space and time, and some events may be regarded as “appearances” of other events. Thus there are any number of unperceived events that may be regarded as “appearances” of a star.¹ If we collect the appearances of different stars at a given place where there is a brain, such a collection is a mind (a percept, which Russell, unlike Mach, always calls mental,² is “the appearance of the object from a place where there is a brain”),³ while if all the appearances of a particular star are collected at different places, such a collection is a physical object, in this case, the star itself. A mind so defined is simply a collection of sensations which are mental only in virtue of their relation to the organic brain.⁴ There is nothing in mind but the sensations so related. Just as there is no “the” real table, the table being simply the whole set of correlated actual and possible sensations,⁵ so there is no mind substance as contrasted with the set of sensations.

It would be unwise to follow further Russell’s account, which becomes complicated by an increasing reference to psychological and biological matters and which soon deserts, as will be seen later, the new realistic position. Instead it

¹See *The Analysis of Mind*, pp. 99-107.
²*Philosophy*, p. 286.
³*The Analysis of Mind*, p. 131.
⁴Ibid., p. 69.
⁵Ibid., p. 98.
is necessary to bring the discussion of the relational theories of mind to some sort of conclusion.

The most striking characteristic of the relational theories of mind is their sharp contrast to the idealistic formulations. While the idealist expands mind to include all reality, the new realist so contracts mind that there is nothing mind can really call its own, not even itself. Reduced to either a bare awareness or a group of sensations in a certain relation to the brain or nervous system, mind has become in the hands of the new realists a very feeble and forlorn aspect of reality. All the contents of the Cartesian mind have been returned to the world, and mind has become merely a relation between the very contents it had previously so proudly claimed. Certainly if idealism had unduly magnified mind, the new realism has unduly minimized it.

It is to be noted that this type of theory makes practically no reference to those aspects of experience which would normally be called the higher mental processes, that is, the judgments, and the chain of thoughts usually evoked in any attempt to deal with truth and error. The very kind of "mental" activity necessary to produce such a theory of mind is neglected in the theory itself, a neglect that is ultimately due to the neglect of psychological considerations by the new realistic movement. With mind reduced to such a shadow, all such phrases as "he has a better mind than x," "y is capable of hard mental work," "the evolution of the animal mind," can only apply to the selectivity of the nervous system singling out neutral elements! I am afraid that we must apply Broad's term here—this is a "silly" theory. With mind reduced to a bloodless shade, the things squeezed out of mind must be returned to the world, and those which the realm of matter will not accept, must be enthroned in the realm of subsistence. Here all truths and errors, all logical
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and mathematical systems and propositions lie in wait for the nervous system which can bring them into the light of experience. Fortunate for Newton that his nervous system selected out the timeless truth of the law of gravitation, and the propositions of the calculus; fortunate for Cantor that his nervous system selected out the transfinite cardinals and brought them into human vision! The history of the human mind becomes the history of human nervous systems.

As for Russell, in so far as his doctrine is unambiguous, it must be said that *The Analysis of Mind* is almost a treatise on how to analyze mind away. The view that mind is a collection of sensations dependent on a living brain gives no insight into the systematic activity of mind which idealism has rightly emphasized. What of the gigantic mental labor that Russell performed in the elaboration of *Principia Mathematica*? Was that merely a collection of sensations at a place where there was a brain? What of any proposition in *Principia*? Does not its very nature and meaning depend upon its being taken as a whole, that is, as a proposition, and not broken up into a collection of sensations? Although Russell has given less and less importance to the realm of subsistence which enveloped his earlier mathematical philosophy, it is difficult to see that Russell has provided any place in his later views of mind for the type of mental activity that a genuine mathematician performs.

New realism did well to recognize that mentality is not a characteristic of experience content *per se*, but it failed to find a satisfactory criterion for the appearance of mind in experience. New realism did well in attempting to state as much of reality as possible in non-mental terms, but it appears to have carried the attempt farther than analysis justifies. If to the idealist we say "more matter, never mind so much about mind!", to the realist we must say "more mind, never
matter so much about matter!" And history appears to have sustained this verdict.

III. MIND AS SUBSTANCE

It is very difficult to define adequately the term "substance," and an adequate definition will not be attempted. Roughly, it may be said with Broad¹ that "an existent is more of a substance the longer it lasts and the less dependent it is on anything else," that is, "endurance and capacity for independent existence" may be taken "as two tests for substantiality." The concept of substance is undoubtedly derived from the semi-permanent things of daily life, tables, rocks, organisms, and the like, all of which are called material substances because they can be touched, handled, weighed. By an intellectual refinement it is possible to conceive of material substances which would endure throughout time and which would persist unchanged even if the remainder of the universe were destroyed. By a further refinement it is possible to conceive of substances which would have endurance and independence without having the differentiating attribute of materiality, and which could not therefore be touched, weighed, or handled. Mind and soul were previously conceived of as such immaterial substances.

The theory of mind as an immaterial substance need not detain us long. Not merely do few philosophers of importance now hold the doctrine, but two weighty reasons make its retention difficult though not impossible. In the first place, both Hobbes and Kant rejected as invalid the transition from the fact of thinking to the existence of an immaterial substantial mind that thinks, and their reasoning has never been successfully challenged. In the second place, there

¹The Mind and Its Place in Nature, p. 31.
²Ibid., p. 33.
is no empirical evidence for such a mind. Minds do have a certain endurance in time just as bodies do, but the evidence is all against a mind that is independent of the other factors of experience. As empirically known, mind is inextricably linked with the whole of the appearing world. No immaterial mind, independent of the rest of the experienced world, is found, and empirically there is nothing more to be said. Of course there may be such a mind, and the moon may be made of green cheese.

In contemporary thinkers, the attempt to conceive of mind as a material substance, or attribute of such a substance, is more common. With the prevalent biological cast of modern thought, it is natural that the human body or some portion of the body, such as the brain, should be identified with mind.

In this connection a consideration of the views of Samuel Alexander is instructive. At the outset it must be admitted that Alexander’s account brings together several streams of thought, and can only in part be regarded as representative of a substance theory. Unlike most new realists, Alexander rejects the relational view of mind as it is found in Holt, claiming that it does not do justice to the fact that we are aware of what is before us.¹ He therefore falls back upon Moore’s distinction between mental act and non-mental content.² In any experience, it is claimed, there are two distinct elements, the object of awareness and the awareness of the object. The first of these Alexander calls “contemplation,” the second “enjoyment.” “The mind enjoys itself and contemplates its object. The act of mind is an enjoyment; the object is contemplated.”³ These two aspects of experience

³*Space, Time, and Deity*, vol. I, p. 12.
are related by being together or "compresent." Mind cannot be an object to itself, cannot contemplate itself: so-called introspection does not make the mind an object to itself but merely clarifies the enjoyment.

We may perhaps pause a moment at this place to consider the doctrine of mind as act aware of content. It must be admitted with Alexander that it is possible for us in looking at a horse to experience the fact of our togetherness with the horse, but the question arises as to whether this togetherness is the compresence of a mental act with non-mental content, or whether it is merely the compresence of two contents. We are told to "seek for the enjoyment as something which you mind or live through, and which you are . . . and . . . you will assure yourself of the compresence of the non-mental object with your enjoyed mind." But many who have earnestly sought have not been able to assure themselves of the mental act. We have seen that the American new realists have never accepted the doctrine of mind as act, and Russell, greatly influenced by G. E. Moore in the early stages of his thinking, has come to reject the doctrine. Many people in searching for the bare act of awareness seem to have had the experience of Hume and James in searching for the self, the experience of finding only more content. The mental act must be found in experience, but since it cannot be found as an object, that is, cannot be contemplated, it is difficult to know whether it is found or not.

We should note, however, the remarkable change in perspective that this distinction between mental act and non-

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1 Ibid., p. 17.
2 Ibid., p. 21.
3 Ibid., p. 20.
5 See however Broad's defense of the possibility of such an analysis as that of Alexander, The Mind and Its Place in Nature, pp. 308-311.
mental content affords. The entire apprehended world immediately becomes non-mental and independent of mind, and it is this which distinguishes the realist doctrine of the act from the idealistic doctrine. Whatever is seen is not a part of mind, only the seeing of it is mental. There is no problem as to how we can get out of mind, for we are already “out” in the simplest experience. Even the so-called mental image is no longer mental, for only the awareness of an image is mental. As contrasted with the subjectivity of experience in the Galilean-Cartesian-Newtonian world-view, on the present position the entire content of experience is returned to the world, mind and consciousness remaining merely as the apprehension of this content. For Alexander, even memory and anticipation involve merely the compresence of mind with objects that are removed in time and space.¹ Alexander states² that “in the memory-image of my friend I have before my mind the revelation of my friend just as much as I have a revelation of him when I see him.” The mind, then, can be compresent with other aspects of reality beyond those present in sense data. Knowledge, in fact, is merely the togetherness of mind with some factor of reality. “Whenever a mental process exists in compresence with some existent of a lower order, it is aware of that existent which is its object.”³ “To know anything is to be along with it in Space-Time.”⁴ The simplification of such a theory is so great, that one is tempted to embrace the theory even if the evidence for the mental act is questionable. Why furnish another example of what is said to have been Herbert Spencer’s conception of a tragedy, namely, a theory ruined

¹ *Space, Time, and Deity*, vol. II, p. 83.
³ Ibid., vol. II, pp. 81, 82.
⁴ Ibid., p. 87.
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by a fact? The appearance of other difficulties in the theory, however, do not make so heroic a course advisable.

The substantive aspect of Alexander's theory must now be brought out more clearly. Although mind can not "look on, as it were, from the outside and contemplate its own passing states," Alexander regards it as necessary to postulate a mind whose "connection with mental acts must be as intimate as the connection of any substance with its functions." Accordingly, "every act of mind is . . . a fragment out of a larger though finite mass." This mind, which cannot be directly contemplated at the human level, would become an object of contemplation for a super-human mind, that is, it would be seen as an object among objects, not a compresence of an enjoyed mind and a contemplated non-mental object. So contemplated, mind would be seen as the highest of the finite emergents, an emergent from life. Mind can in fact be located in the body and more specifically in the "brain or some part of it." "That which as experienced from the inside or enjoyed is a conscious process, is as experienced from the outside or contemplated a neural one." Not all neural processes have mental aspects, but when they do "the mental process and its neural process are one and the same existence, not two existences." As neural, mind may enter into causal relations with other neural processes; as neural structure, mind reflects the unity or lack of unity of this structure.

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1 Ibid., vol. I, p. 17.
2 Ibid., p. 23.
3 Ibid., p. 20.
5 Ibid., vol. II, p. 5. C. L. Morgan's position is similar, but in regarding both the act and the content as mental, his position becomes a critical and not a new realism.
6 Ibid., p. 9.
7 Ibid., vol. II. p. 12.
8 Ibid., p. 24.
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There are some difficulties in reconciling the view of mind as enjoyed act, with the view of mind as neural process. While it is not impossible (though difficult) to conceive of mental acts compresent with and knowing objects that are past and future as well as present, it is difficult to see how a neural process knows a table by being alongside of it, or how a neural process in the present can be compresent with the death of Aristotle in 322 B.C. Another difficulty appears in connection with the problem of error. We have seen how in general new realism is bothered by this problem. If for Alexander mind is the awareness of objects that are independent of mind, how is error possible? Wishing to avoid the realm of subsistence, Alexander here shifts to the neural aspect of his theory. Although mind as neural complex only "selects" its content from the world, it has "interests" and can "distort" and "dislocate" this content. Most mathematical objects are "ideal selections" and not abstractions from objects, but mind can also build such things as a four dimensional space which is "rather a work of art than a discovery." It may even "falsify by the introduction of objects which do not belong to the thing." In illusions "the mind squints at things and one thing is seen with the characters of something else." "Illusions are the real world seen awry or squintingly," and such dislocation is "the mind's own work." Truth, on the other hand, must be stated in terms of coherence and not in terms of correspondence: truth requires that reality "admit" the proposition, but whether reality does so or not requires an appeal to the "collective

1 Ibid., vol. I, p. 151.
2 Ibid., p. 163.
3 Ibid., vol. II, p. 93.
5 Ibid., p. 216.
6 Ibid., p. 252.
Mind as neural process produces the illusion which mind as act simply apprehends. The relation between these two aspects of Alexander's treatment of mind is by no means clear, and it is difficult to see how in the last analysis they are identical.

It must be admitted that a nervous process capable of such acts of apprehension, and of dislocation, and capable of the construction of four dimensional spaces is a much more remarkable neural process than any that is known to science. The conviction develops that Alexander, in endeavoring to return the contents of experience to nature while still admitting error, has invoked a dubious distinction between mental act and apprehended content, and has made a scapegoat out of the nervous system. Fortunately there are alternative methods of regarding the directly experienced world as the natural world and not merely the content of mind without invoking either diaphanous mental acts or squinting nervous systems.

The ultimate identification of the mind and the brain as found in Alexander is more prominent in the movement known as critical realism than it is in the new realism. Troubled by the problem of error in the new realism, critical realism has attempted to make a place for error by introducing between the organism and the physical world a realm of "data" or "essences," terms that at times include all content directly present and the complex phenomenon of meaning. Following closely the conventional physicist's account of the physical world, data are not regarded as constituents of this world. They may therefore be regarded as constituting a unique realm of being, as in Santayana's Platonic realm of essence, or they may be referred back to the organism for explanation, as in Sellar's account of the critical

1Ibid., pp. 239-241, 258.
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realist position. In either case a dualism has been established between the world of experience (which in many of the thinkers is regarded as mental and subjective), and the world of physical objects, which can only be regarded as a return to the conceptions and difficulties of the Galilean-Cartesian-Newtonian world-view, with a new substitute for the Cartesian mind.

Sellar's account is in some ways the least metaphysical and the most determined in connecting mind and the brain. For him given content is personal, psychical, and subjective. It is "in the individual percipient." Specifically, it is "an intracortical occurrence." Although Sellars aims to bring the brain up to the mind and not reduce mind to the brain, provided this caution is made, it may be said that "the mind is the brain as known in its functioning," and that "mental processes are brain-processes." He believes that with the conception of the "brain-mind" he has enlarged "the conception of the brain to include the mind." Consciousness is "a 'variant' within the brain," "a novel quality of the tensionally functioning brain." "The conscious self sits in the watch-tower of the brain to guide the organism's behavior." 9

Drake, unlike Sellars, distinguishes the mental state from the given data. Mind is not directly experienced, but the concept is necessary, so he believes, to allow the organisms

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1 *Evolutionary Naturalism*, p. 32.
2 Ibid., p. 33.
3 Ibid., p. 39.
4 Ibid., p. 18.
5 Ibid., p. 300.
6 Ibid., p. 302.
7 Ibid., p. 315.
8 Ibid., p. 56.
9 Ibid., p. 318.
to be aware of data. But in experience we perhaps get a fused and condensed content analogous to what the brain would reveal when seen from the inside. For various reasons, Drake is led to accept the position that while physics and physiology see the brain from the outside, the brain seen from within is composed of mental events. Mental events and cerebral states are therefore identical. The stuff of the brain is psychic stuff; mind is "a brain regarded from the inside." Mind is "a psycho-neural mechanism" whose events are "mental states;" "the bodily organ that has these states, or events, is the mind."

It may be noted in passing that Drake's metaphysics reveals the influence of both Spinoza and Leibniz. For him there is only one single universal substance, and the psychical and the physical "are simply two aspects of a single set of events." The ultimate units of this substance are "psychic units." Metaphysically mind is the psychic aspect of the world at the level of the brain. In addition to this single substance, Drake, like Santayana and unlike Sellars and Alexander, sets up a realm of subsistence which does not exist but which "subsists" as "merely possibilities of existence and possibilities of discourse," a realm to which "the world of existents, vast as it is, is but a speck in comparison." The realm of experience is merely the "class of essences actually 'given.'"

That the movement toward the critical realist position is very widespread may be made more evident by a brief refer-

1 Mind and Its Place in Nature, p. 82.
2 Ibid., p. 93.
3 Ibid., p. 68.
4 Ibid., p. 90.
5 Ibid., p. 94.
6 Ibid., p. 198.
7 Ibid., p. 197.
ence to two other contemporary philosophers, both of whom have been mentioned in another connection, C. D. Broad and Bertrand Russell.

Broad insists that the existing object is not a constituent of the perceptual situation and cannot be inferred on logical grounds. He thus opposes the new realism both in perception and in memory. Although Broad admits that he does "not know how to define a 'mind,'" his own suggestion is that mind is an emergent upon the presence of two substances, one being the physical body, and one being a substance which he calls "the psychic factor," but which he admits may be physical. This psychic factor, introduced to account for psychic phenomena, may survive the death of the body, and may allow a mind to emerge when in contact with a medium's body. Whatever the merits of and need for this compound theory, and admitting that Broad introduces a new note in regarding mind as an emergent from substance and not itself a substance, there is no adequate analysis of the relation of mind when emerged to the world of nature. Although experience is defined as "a mental event owned by some mind," noises and toothaches are not regarded as states of mind or even as mind-dependent, and there are places where Broad seems to make mind consist of an act rather than of apprehended content. The relation of mind to experience and of experience to nature remains ambiguous, in spite of the analytical excellence of Broad's work.

Russell in his later works seems to be moving decidedly in the direction of a critical realism. Even in The Analysis

1 The Mind and Its Place in Nature, p. 158.
2 Ibid., p. 390.
3 Ibid., pp. 535-551.
4 Ibid., p. 376.
5 Ibid., pp. 290, 304.
6 Ibid., pp. 277, 305.
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Russell had regarded psychology as nearer to experience than physics, and in *The Analysis of Matter* all percepts have been located in the brain. Mental events are "events in a living brain, or, better, in a region combining sensitivity and the law of learned reactions to a marked extent." Each percept belongs to the events "constituting the electrons in the brain." Although Russell insists that physics cannot ignore quality, nor exclude percepts from the physical world, Russell gives up new realism: "we cannot . . . suppose that the external event is exactly what we see or hear; it can, at best, resemble the percept only in certain structural aspects." "I should say that what the physiologist sees when he looks at a brain is part of his own brain, not part of the brain he is examining." Accordingly, while Russell admits that the intrinsic quality of the "real" world may be similar to the perceived world, on his position physics can deal only with the inferred structure of the world. On Russell's later position, as in critical realism, the brain has become a "brain-mind," experience has been mentalized and located in the brain, and the world which physics describes is no longer open to direct inspection.

Even though no adequate discussion of such a complex movement as critical realism is possible in the present connection, a few matters of general importance may be noticed. The similarity of the general position to the Galilean-Cartesian-Newtonian world-view is evident. In place of the

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1 Ibid., p. 308.
2 *Philosophy*, pp. 280, 281.
3 *The Analysis of Matter*, p. 320.
4 *Philosophy*, p. 294.
5 *The Analysis of Matter*, p. 383.
6 Ibid., p. 390.
7 In a similar vein Morgan remarks, "all that is minded is within us. The mind never gets outside the conning-tower of vision save through projection." (*Emergent Evolution*, pp. 50, 51).
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"ivory tower" view of mind there has appeared the "ivory tower" view of the brain. What explanation can be given of the striking fact that after centuries of reaction against the world-view elaborated in the seventeenth century, the latest philosophy in time should be closest in spirit and results to this very view?

There are a number of considerations which throw some light upon this fact. The modern realisms have been nourished by the startling developments in the physical and mathematical sciences, and have not had the problems of value as their center of orientation. The world of traditional physics is a world nurtured in the metaphysics unconsciously handed down by the triumphs of Newton, and it is not surprising that those who drank of these results should enjoy the flavor of the metaphysical liquid. Lacking the handy Cartesian soul, and resenting the separation from nature which the traditional metaphysics entailed, it was natural for the new realists to objectify all experienced content and regard mind as merely an awareness of this content or a relation between separate items of this content. A mind so interpreted, however, gave no leverage for the explanation of error, left no place for constructive mental activity, and vastly complicated the world of physical reality which had been treated more simply in the traditional views. In particular, a place had to be found for mathematical systems and propositions, which although objects of awareness, were clearly not physical objects, and this led to the erection of the realm of subsistence to house the homeless universal aspects of reality. In sensing that a more adequate theory of mind was necessary to deal with the difficulties of the new realist position, critical realism, influenced by the prestige of physical science, again separated mental content and the physical object. The further tendency to locate experience, now regarded as men-
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tal, in the brain was facilitated by the enormous increase in the knowledge of neural processes, and by the growing biological cast of contemporary thought.

Two comments, however, may be made upon this result. First, the only brain that science knows is the brain as experienced, and the brain as experienced is experienced along with other factors of experience which can in no sense be reduced to states of the brain.¹ To say that a color is merely a neural process in the brain is to desert a genuine empiricism in favor of a questionable metaphysics. The brain is simply one physical object among other physical objects. If it be said that experience is the brain seen from the inside, it must be replied that this proposition is at best an assumption, and that it is assumed that there is some fundamental difference between experiencing from the “inside” and the “outside.” There is, of course, another legitimate distinction that must not be confused with this illegitimate one, namely, the distinction between what is observed in one perspective from what can be observed in other perspectives. But in no perspective with which we are acquainted do we perceive colors to be brain states. To call the brain the mind is to patch up an unsatisfactory theory by recourse to a further unsatisfactory theory. Secondly, the doctrine that mind is the brain, like the process and relation theories, throws no light on the specific problems that an adequate theory of mind must meet.²

¹ Cf. Broad’s discussion of radical behaviorism, to which the above criticism applies, on pp. 612-623 of The Mind and Its Place in Nature.

² Since writing the above account, I have come to realize its inadequacy both as a presentation and as a criticism of the critical realist position. There seems to me to be much that is important in the conception of essence, but nothing which cannot be dealt with in terms of the symbolic theory of meaning, and nothing which is destructive of a new realistic or objective relativistic account of the non-meaningful aspects of the experienced world.
Is there no alternative theory that will do justice to the systematic active character of mind, and to the realistic recognition that in experience we are not confronted merely with states of our mind, without being forced into a regress that leads back to the Galilean-Cartesian-Newtonian worldview, thereby losing the results of the long philosophical process from the seventeenth century to the nineteenth century? Is there no alternative theory which in avoiding philosophical blind alleys throws light upon the reflective process as immediately experienced, and has significant bearings upon the material of biology, psychology, anthropology, logic, and mathematics—a theory which while in harmony with scientific results liberates and enhances the place of mind in those cultural and moral achievements which measure the significance of human life? An affirmative answer must now be attempted.

I feel, therefore, that the more detailed consideration which critical realism deserves would necessitate no basic change in the plan or results of the present study.