

CHAPTER XIII

The Unity of the Mind

I SHALL begin by mentioning those facts about the mind which everyone admits and which every theory has to take into account.

(1) It is admitted that the total state of a man's mind at any moment may be, and generally is, differentiated. This differentiation takes two different forms. (a) My total state of mind at any moment may consist of mental events of various *kinds*. I may be *feeling* tired, *wanting* tea, *thinking of* my book, and so on. (b) There may be in my total mental state at any moment a number of mental events which are of the same kind but have different epistemological *objects*. I may be thinking of my tea, of my book, of the multiplication-table, and so on. We may sum this up by saying that the total state of a mind at any time may be differentiated qualitatively or objectively or in both ways. As we have seen, identity of quality is compatible with diversity of objects. Similarly, identity of object is compatible with diversity of quality. *E.g.*, I might at the same time be thinking of my tea, longing for my tea, and so on. Probably every total state of mind is diversified both qualitatively and objectively; and no doubt there are intimate causal connexions between the two kinds of differentiation. Still, they are distinct forms of differentiation even if they never occur in isolation from each other.

(2) On the face of it there are two fundamentally different kinds of mental events, viz., those which do and those which do not have epistemological objects. Compare, *e.g.*, the two statements "I feel tired" or "I

feel cross" with the two statements "I see a chair" or "I want my tea". The former seem to express *how*, and not *what*, I am feeling. The latter seem to express *what*, and not *how*, I am perceiving or desiring. I will call them respectively "non-referential" and "referential" mental events. (Cf. Chap. VI.) Some people have argued that all mental events are really referential. This may possibly be true; but their arguments do not convince me, and their conclusion seems to me paradoxical. I think it very likely that my total mental state at any moment is never wholly non-referential and never wholly referential; but this is as far as I am willing to go. I therefore assume that there are these two different kinds of mental event, however closely they may always be connected with each other in real life.

(3) At the same time there exist a number of different total mental states, which we say "belong to different minds". It is possible for there to be two contemporary mental events which have exactly the same determinate qualities and the same epistemological object; but these two mental events cannot belong to the same mind. (To this it would generally be added that no mental event can belong to more than one mind, and that every mental event must belong to some mind. But, in view of the facts of abnormal and supernormal psychology, it would perhaps be unwise to insist on this as strongly as on the other points which have been mentioned.)

(4) Certain series of successive total mental states are said to "belong to a single mind". And the events which are differentiations of a pair of total states belonging to the same mind themselves belong to that mind. (It would commonly be held that every total mental state is part of the history of some mind which endures for some time and has other earlier or later total states.)

These are the main facts which every theory has to take into consideration. I now propose to state various theoretically possible analyses of them.

Alternative Theories about the Unity of the Mind.—We may begin by dividing all theories into two great groups, viz. (A) Centre-Theories, and (B) Non-centre-Theories. By a centre-theory I mean a theory which ascribes the unity of the mind to the fact that there is a certain particular existent—a Centre—which stands in a common asymmetrical relation to all the mental events which would be said to be states of a certain mind, and does not stand in this relation to any mental events which would not be said to be states of this mind. By a non-centre theory I mean one which denies the existence of any such particular Centre, and ascribes the unity of the mind to the fact that certain mental events are directly inter-related in certain characteristic ways, and that other mental events are not related to these in the peculiar way in which these are related to each other.

Now centre-theories may be sub-divided into (a) Pure Ego Theories, and (b) Theories that do not assume a Pure Ego. By a Pure Ego I understand a particular existent which is of a different kind from any event; it owns various events, but it is not itself an event. No doubt the commonest form of the Centre theory has involved a Pure Ego. But it seems conceivable that the unity of the mind might be due to the existence of a Centre, and yet that this centre might itself be an event. It is possible that this is what William James had in mind when he talked of the "passing thought" as being the "thinker". So we had better leave room for theories of this type.

(A, a) *Pure Ego Theories.* Theories which assume a special kind of existent Centre—a Pure Ego—may be divided according to the view which they take about mental events. A mental event is certainly a Substantive; i.e., it is the kind of entity which can be a logical subject of a proposition, but cannot play any other part in a proposition. But there are two different kinds of substantives, viz., those which exist and those which

only subsist. A Pure Ego, if there be such a thing, is an existent substantive. A fact or a proposition is a substantive, in the sense defined above. We can say that "The execution of Charles I was a political mistake" or that "It is probable that Edwin will marry Angelina". Here we have facts or propositions functioning as subjects of other propositions. And they cannot play any other part in a proposition. They are therefore substantives. But they do not exist (though they may contain existents as constituents); they merely subsist. Now, granted that mental events are substantives, it might be held (i) that they are merely subsistent, or (ii) that they are existent substantives. Non-centre theories about the mind are obliged to hold that mental events are existent substantives; but Pure Ego theories have already got an existent substantive, viz., the Pure Ego. They can therefore take their choice about mental events. They can regard mental events either as facts about Pure Egos, or as existents of a peculiar kind which stand in specially intimate connexion with existents of another kind, viz., Pure Egos. We will now consider these two forms of Pure Ego theory in turn.

(i) On this view there is a plurality of different Pure Egos. All these Pure Egos have certain causal characteristics or "faculties", e.g., the power of remembering, the power of reasoning and so on. Beside this, each Pure Ego at each moment has some determinate form of some determinable non-causal quality; and each Pure Ego at each moment has some determinate form of some determinable relation to some object or other. A mental event is the fact that a certain Pure Ego has a certain determinate form of a certain determinable non-causal quality at a certain moment; or it is the fact that a certain Pure Ego stands at a certain moment in a certain determinate form of some determinable non-causal relation to a certain object. The first kind of fact is what we have called a "non-referential" mental event; the second kind of fact is what we have called a "referential"

mental event. *E.g.*, we might take "tiredness" as one determinable quality, and "crossness" as another. Then the mental event of feeling tired is the fact that a certain Pure Ego has a certain determinate form of the quality of tiredness at a certain moment. Again, perceiving and desiring would be two determinable relations; and the mental event of seeing a chair would be the fact that a certain Pure Ego has this determinate form of the relation of perceiving at a certain moment to a certain chair. Now a Pure Ego can have determinate forms of several different determinable qualities at the same time; *e.g.*, it can at the same time have the quality of tiredness in a certain degree and the quality of crossness in a certain degree. Similarly, it may have the same determinate relation to several different objects at the same time, or it may have at the same time different kinds of relation to the same object. A total mental state would then be the fact that a certain Pure Ego at a certain moment has several different non-causal qualities, stands in non-causal relations of several different kinds, and stands in the same kind of non-causal relation to several different objects. To say that all these contemporary mental events are differentiations of a single total state of a certain mind is just to say that each of them is a fact about the same Pure Ego and the same moment of time and about different qualities or relations or the same relation and different objects.

So much for what we might call the "transverse unity of a cross-section of the history of a mind" on this view. The "longitudinal unity" of a mind, as we might call it, could be explained on this view in two alternative ways. (*a*) The simplest theory would be that the same Pure Ego persists; and that it has different determinate qualities, or stands in different determinate relations, or stands in the same determinate relations to different objects, at different times. To say that two successive total states are states of the same mind is just to say that both of them are facts about the same Pure Ego,

about different moments of time, and about the same or different qualities or relations or objects. (*β*) It would, however, be possible to hold a view which is a kind of compromise between a Central and a non-Central Theory. It might be held that the unity of each total state requires a Pure Ego. But it might be held that the longitudinal unity of a mind does not require that one and the same Pure Ego should be a common constituent of a series of successive total states. It might be held that there is a different Pure Ego for each different total state of the same mind, and that two successive total states are assigned to the same mind because of certain characteristic relations which they have to each other and which they do not have to other total states which would not be assigned to this mind. This second Theory is a Central Theory for the transverse unity, and a non-Central Theory for the longitudinal unity of the mind.

Whichever form of this theory we may take it follows that every mental event must be "owned" by some Pure Ego. For every mental event is a fact about some Pure Ego, and it may be said to be "owned" by the Pure Ego which it is about. I think that it would also follow from either form of the theory that no mental event could be owned by more than one Pure Ego. For a mental event is the fact that a certain Pure Ego has a certain quality or stands in a certain relation to a certain object at a certain moment. Now, although two Pure Egos might have precisely the same quality and stand in precisely the same relation to the same object at the same time, yet it would be one fact that Pure Ego A had this quality or stood in this relation to this object, and it would be another fact that Pure Ego B did so. Hence there would be two mental events and not one. Finally, although on either form of the theory every mental event would be owned by some Pure Ego and no mental event would be owned by more than one, it would be possible on the second

form of the theory that there might be mental events which were not states of any mind. For there might be certain mental events which did not stand in such relations to any mental event of earlier or later date that the two could be regarded as successive slices of the history of a mind.

(ii) We will now consider the second great division of Pure Ego theories, viz., those which regard mental events as existent substantives and not merely as subsistent facts about the qualities and relations of Pure Egos. On this type of theory we must suppose that non-causal qualities, such as tiredness or crossness, belong, not to Pure Egos, but to mental events. We must further assume a peculiar asymmetric relation of "ownership" between a Pure Ego and certain mental events. On the first form of Pure Ego theory "ownership" was not a peculiar *material* relation; a Pure Ego owned a state when the state was the fact that this Pure Ego had such and such a quality or stood in such and such a relation at a certain time. Ownership was thus the *formal* relation of a subject to a fact about that subject. On the present form of the theory mental events are not facts about Pure Egos, and the ownership of a mental event by a Pure Ego cannot be dealt with in this simple way.

Let us consider the analysis of a typical mental state on the two forms of the Pure Ego theory. We will begin with the kind of state which is expressed by the phrase "I feel tired". On the first form of the theory this can be analysed into: "A certain Pure Ego has a certain determinate form of the determinable quality of tiredness now." On the second form of the theory it would be analysed into: "There is a mental event characterised by a certain determinate form of the determinable quality of tiredness, and this event is owned by a certain Pure Ego." Next let us consider a referential mental event, such as that which would be expressed by the phrase: "I am thinking of the number

2." On the first form of the theory this could be analysed into: "A certain Pure Ego stands now in a certain determinate form of the determinable relation of 'cognising' to the number 2." On the second form of the theory it could be analysed into: "There is a mental event which stands in a certain determinate form of the determinable relation of 'cognising' to the number 2, and this event is owned by a certain Pure Ego."

There are several points to be noticed about these alternative analyses. In the first place, on both theories there is a relation of the Pure Ego to the mental event, and also a relation of the Pure Ego to the determinate quality, in the case of a non-referential state of mind. On the first theory, the Pure Ego is *characterised* directly by tiredness; on the second theory, the Pure Ego has to the quality of tiredness a compound relation which is the logical product of the two relations of "owning" and "being characterised by". For, on the second theory, the Pure Ego *owns* something which *is characterised by* tiredness. The difference is that, on the first theory, the relation between the Pure Ego and the quality is direct, like that of father to son; whilst, on the second theory, it is indirect, like that of uncle to nephew. Again, on the first theory, the relation of Pure Ego to mental event is the formal relation of a subject to a fact about that subject; whilst, on the second theory, it is the non-formal relation of "ownership" between one existent substantive of a certain kind and another existent substantive of a different kind. Similar remarks apply to referential mental states on the two theories. On the first theory, the Pure Ego stands directly in a cognitive relation to an object. On the second theory, it stands in a compound relation to this object; this relation is the logical product of the two relations of "owning" and "cognising"; for the Pure Ego *owns* something which *cognises* the object. It must, therefore, be admitted that *both* theories are

able to deal with all the various relations which any theory has to recognise; they differ here only in the fact that a relation which is direct and simple on one theory is indirect and complex on the other. Secondly, on the present form of the Pure Ego theory it is not logically impossible that there should be mental events which are not owned by any Pure Ego at all; nor is it logically impossible that some mental events should be owned at once by several Pure Egos. On the first form of the theory it followed logically from the nature of mental events that there could not be unowned or common mental events; if this is to be maintained on the present form of the theory it will be necessary to add certain synthetic propositions about the relation of "ownership".

There is one other point which had better be mentioned at this stage. As stated by us, both forms of the Pure Ego theory have presupposed a plurality of different determinable mental qualities and a plurality of different determinable relations to an epistemological object. On the first theory these qualities directly characterise the Pure Ego, and these relations directly connect the Pure Ego with epistemological objects; on the second theory the qualities directly characterise mental events, and the relations directly connect mental events with epistemological objects. Now I do not think that either theory could dispense with a plurality of different determinable mental *qualities*. For there are certainly different kinds of feeling, such as "feeling tired", "feeling cross", etc., and it seems impossible to regard the difference between feeling tired and feeling cross as simply a difference of relation to some object or as a difference in the objects to which something is related. It would seem then as if "tiredness" and "crossness" were so many different non-relational determinables. But, if we once grant a plurality of different determinable mental qualities, it might be suggested that we could do without a plurality of

different determinable mental *relations* to objects. We have counted cognising as one kind of determinable relation to an object, and desiring as another kind of determinable relation to an object. But could we not manage with only a single determinable relation to an object, which we might call "objective reference"? Might not the difference between cognising and desiring simply be a difference in the qualities of the term which stands at the moment in the relation of reference to an object? On the first form of the Pure Ego theory this suggestion would work out as follows. Suppose I think of my tea first, and then desire my tea. There would, on both occasions, be simply some determinate form of the general relation of reference between my Pure Ego and my tea. But on the second occasion, *i.e.*, when I desired my tea in addition to thinking of it, my Pure Ego would have a certain characteristic quality which it did not have on the first occasion. A thing would be "desired" when it stood in the relation of being "referred to" by a Pure Ego which had at the time a certain specific quality. On the second form of the Pure Ego theory the suggestion would work out as follows. A desire for my tea would be a mental event which (*a*) has a certain characteristic quality, and (*b*) has the relation of objective reference to my tea. A mere thought of my tea would be a mental event which (*a*) lacks this characteristic quality, and (*b*) has the relation of objective reference to my tea. It may be remarked that all other mental attitudes towards objects presuppose the cognitive attitude; we cannot desire, fear, hate, or love anything, without having an idea of the object towards which we take this attitude. Hence it would be plausible to identify the cognitive relation with the general relation of objective reference; and to suppose that all other mental attitudes consist of the holding of this relation between a Pure Ego or a mental event and an epistemological object, together with the fact that this Pure Ego or mental event has at the time a certain character-

istic quality which determines whether the attitude is called "desire", or "love", or "hate" or what not.

Thus we get a cross-division of Pure Ego theories according to whether they do or do not assume a plurality of different kinds of relation of reference to objects. I will now leave the exposition of the various possible forms of Pure Ego theory, and will pass to the theory of a Centre which is an event and not a Pure Ego.

(A, b) *Central-Event Theories*. It is evident that these form a kind of half-way house between Pure Ego theories and Non-Centre Theories of the mind. They resemble Pure Ego theories in the fact that the unity of a total mental state at any moment depends on a common relation in which all its differentiations stand to a common Centre. They resemble Non-Centre Theories in the fact that this Centre is itself an event and not a peculiar kind of existent substantive; it is of the same nature as the events which it unifies. I think that the most plausible form of this theory would be to identify the Central Event at any moment with a mass of bodily feeling. The longitudinal unity of a self through a period of time would then depend on the fact that there is a mass of bodily feeling which goes on continuously throughout this period and varies in quality not at all or very slowly. At any moment there are many such masses of bodily feeling, which are numerically different however much they may be alike in quality. These form the Centres of a number of different contemporary total states of mind. Each of them is a thin slice of a long and highly uniform strand of bodily feeling; and each of these strands of bodily feeling accounts for the longitudinal unity of one mind.

The transverse unity of a total mental state might be accounted for in two different ways on this theory, which are similar to forms (i) and (ii) of the Pure Ego theory. (i) We might suppose that each cross-section of one of these strands has various other qualities beside that quality in which all adjacent cross-sections of the

same strand closely resemble each other. These other qualities may vary sharply between adjacent cross-sections of the same strand. *E.g.*, suppose we take two adjacent sections of a certain strand, each of which lasts for a minute. There may be a predominant resemblance in quality between the two; but the first may have in addition a "toothachy" quality, and the second may have in addition a "headachy" quality. The transverse unity of the total mental state will consist in the fact that the same Central Event has a plurality of different determinate qualities in addition to that quality in which it resembles adjacent Central Events of the same strand. So far we have considered only non-objective mental events. Objective mental events could be dealt with as follows. We might suppose that the same Central Event, which has these various qualities, also stands in various determinate forms of various determinable relations to various objects. The fact that a Central Event stands in such and such a determinate form of such and such a relation to such and such an object will be, on this view, what is meant by saying that such and such a referential mental state is occurring in such and such a mind.

(ii) The other alternative would be to assume a plurality of existent mental events beside those which are bodily feelings and constitute Central Events. These other events would then have characteristic mental qualities and stand in characteristic mental relations to objects of various kinds. And the transverse unity of a total mental state would consist in the fact that a single central bodily feeling stands in a certain common relation to a number of other mental events, each of which has its own characteristic qualities, and some of which stand in characteristic relations to objects.

As in the case of the Pure Ego theory, we might try to do without a plurality of different determinable mental relations to objects, provided we accept a plurality of mental qualities. We might postulate a single deter-

minable mental relation of "objective reference". And we might distinguish the apparently different kinds of objective reference, such as desire, love, fear, etc., by characteristic differences in the quality of the term which stands in the relation of objective reference to an object.

(B) *Non-Central Theories.* These Theories try to dispense with the assumption of an *existent* centre, whether it be a Pure Ego or a Central Event. The unity of a total mental state consists in the fact that a number of contemporary mental events, each with its own characteristic qualities, are directly interrelated in certain characteristic ways. There are other contemporary mental events which are not related in these ways to a given set of interrelated mental events of this kind. These either belong to no mind at all, or to a contemporary total state of some other mind. The longitudinal unity of a mind is due to the fact that certain non-contemporary total mental states, of the kind just described, are related to each other in characteristic ways. It is obviously logically possible on such a theory that there should be mental events which do not belong to any total mental state, and total mental states which do not belong to any mind.

There are several remarks of a general logical character to be made on the relation between Central and Non-Central Theories. (i) If a number of terms stand in a common relation to a certain other term it necessarily follows that they will stand in a symmetrical relation to each other. *E.g.*, if A and B be both children of X, they necessarily stand in the relation of "brother-or-sister" to each other. This consequence may be called merely "analytic", since the relation of "brother-or-sister" between A and B just *means* that A is a child of someone who is a parent of B. But (ii) the fact that a number of terms stand in a common relation to a certain other term *may* entail a consequence about the relation of these terms to each other which is not merely analytic. Suppose, *e.g.*, that four points A, B, C, and D are all

at the same distance from a point X. Then it necessarily follows that the angle ABD is equal to the angle ACD. This consequence about the relations of the points cannot be called merely analytic; for it is certainly not a mere restatement or weakening of the statement that A, B, C, and D are all at the same distance from X. It might have been recognised by a person who had never suspected that there was a point X from which these four points were equidistant. We must, therefore, admit that the direct relations which we discover between a number of terms may in fact be entailed by their standing in a common relation to some other term. (iii) If a number of terms be interrelated directly in a characteristic way it follows analytically that there is *something* to which they all stand in a common asymmetrical relation, even though there be no Existent Centre in the system. For each of them is a constituent in the *fact* that they are all related to each other in this particular way; and so this fact stands in a common asymmetrical relation to all these terms. Thus, even if a number of interrelated terms have no Existent Centre, there is always a certain substantive, which subsists though it does not exist, which stands in a common asymmetrical relation to all of them and might be called their "Subsistent Centre". (iv) What has just been asserted is merely an analytic consequence of the fact that the terms in question are interrelated. But the fact that a number of terms are directly interrelated *may* entail the synthetic consequence that there is an Existent Centre which stands in a common asymmetrical relation to them all. If the four points A, B, C, and D be so related to each other that the angle ABD is equal to the angle ACD it follows that these points are concyclic, *i.e.*, that there is a certain point X from which they are all equidistant. And this is not a mere restatement or weakening of the original statement about the equality of the two angles. It must, therefore, be admitted that the direct relations which we discover among a set of

terms *may* in fact entail that there is a certain Existent Centre which stands in a common asymmetric relation to all of them. Lastly (v) we must notice that theories of the Non-Central Type are not obliged to hold that the relations which bind certain contemporary mental events into a total mental state, or the relations which bind certain successive total mental states into a mind, are dyadic relations. Both kinds of relation might be irreducibly polyadic, like jealousy or trusteeship.

I have mentioned these purely logical points for two opposite reasons. On the one hand it is often objected *in limine* against Non-Central Theories that our use of personal pronouns, like "I" and "You", presupposes that we recognise the existence of Centres; and that Non-Central Theories are necessarily incapable of accounting for this fact. We see that this preliminary objection is baseless. Even on Non-Central Theories there is necessarily something which can be called "I" or "You". This something is a substantive, and it stands in a common asymmetrical relation to "my" state or to "your" states respectively. The only difference between Central and Non-Central Theories is about the logical nature of this substantive. On Central Theories it is a particular existent, either a Pure Ego or a Central Event. On Non-Central Theories this substantive is a Fact about certain mental events and their interrelations, and so its mode of being is subsistence and not existence. What the opponents of Non-Central Theories have to prove is, therefore, not simply that the unity of the mind involves an entity other than its states, which stands in a common asymmetrical relation to all these states; but that this entity is an *existent* and not merely a *subsistent* substantive.

On the other hand, it is often objected *in limine* to Central Theories (and, in particular, to Pure Ego Theories) that all that we can observe is mental events and their direct relations to each other. We cannot observe Pure Egos and their relations to mental events or to objects. As against this preliminary objection it was

worth while to remark that, if there were an Existent Centre, this fact might entail synthetically the subsistence of certain direct relations between the mental events which it unifies. And conversely that the subsistence of certain observable relations between a set of mental events might entail that there was an Existent Centre to which they all stood in a certain common relation. In this connexion the following remark may be of interest by way of analogy. The existence of conic sections was recognised, and many of their properties were worked out, long before it was known that to each conic section there is a peculiar point (the Focus) and a peculiar straight line (the Directrix) and that all the other properties of any conic entail and are entailed by the fact that every point on it is such that its distance from the focus bears a fixed ratio to its distance from the directrix.

It remains to be noticed that Non-Central Theories, like Central Theories, may take two different forms according to whether we assume a plurality of different determinable relations of objective reference, such as cognising, desiring, loving, etc., or content ourselves with a single determinable relation of objective reference and a plurality of different determinable qualities in the terms which stand in this relation to objects. We must remark here, however, that a still further degree of simplification has been attempted by certain philosophers, such as William James and Bertrand Russell. All forms of all theories which we have so far mentioned have distinguished sharply between the *constituents* of a mind and its *objects*. The objects of the mind were never supposed to be also constituents of it, except possibly in the very special case where the mind is introspecting and making one of its own states into an object. On the first form of the Pure Ego theory the mind can hardly be said to have constituents at all. The Pure Ego *is* a constituent of a number of facts, and the objects of the mind are constituents of some of these facts. But this does not make the objects constituents

of the mind. On the second form of the Pure Ego theory the constituents of the mind are the Pure Ego and the mental events which it owns. Some of these mental events are constituents of certain facts of which the objects of the mind are also constituents. But this again does not make the objects constituents of the mind. On the theories which reject the Pure Ego, which we have so far considered, the constituents of the mind are mental events. Some of these mental events are constituents of facts of which the objects of the mind are also constituents; but this does not make the objects of the mind constituents of it. The form of Non-Central theory which we have now to mention holds that the mind is *composed of* its objects interrelated in certain characteristic ways. A total state of mind just is the fact that a certain set of objects are related to each other at a certain moment in a certain way; and a particular mental event just is the fact that at a certain moment a certain object stands in certain relations to certain other interrelated objects.

Discussion of the Alternative Theories. I have now stated and tried to explain all the alternative theories about the unity of the mind with which I am acquainted. It will be seen that they are very numerous; and that none of them, with the possible exception of the third form of Non-Central Theory, is so obviously silly that it can safely be dismissed without discussion. And even this third form of Non-Central Theory has been held by such eminent men that it would be impertinent to ignore it.

Plurality of Relations of Reference. I will begin by considering a question which arises on all the alternatives, viz., whether it is necessary to assume a plurality of different determinable relations of reference to an object as well as a plurality of different determinable mental qualities. It seems to me that it would not be possible to dispense with a plurality of different determinable

relations of reference on the first form of the Pure Ego theory. Let us consider, *e.g.*, the two attitudes of loving and hating. It is impossible for the same mind to love and to hate the same object at the same time. If then we suppose that the statement "X loves A" means "X has the quality *l*, and stands in the relation of reference to A", and that the statement "X hates A" means "X has the quality *h*, and stands in the same relation of reference to A", we shall have to suppose that the qualities *l* and *h* are incompatible with each other. But it is quite certain that X can love A and hate B at the same time. And, on the present analysis, this would seem to require X to have at the same time the two inconsistent qualities *l* and *h*. Now, if X be a Pure Ego, we cannot avoid this by supposing that one *part* of X has the quality *h* and another part has the quality *l*; for X will not have parts. Hence it seems impossible to accept this analysis on the first form of the Pure Ego theory. The same result may be brought out in a different way. It is certain that I may cognise both A and B, and desire A and not desire B at the same time. Now, if "X desires A" means "X cognises A and has the quality *d*", it would seem to follow that, when X cognises both A and B and desires only A, X must both have and not have the quality *d*. And this seems to be impossible if X be a Pure Ego. Thus I think we may conclude that the first form of the Pure Ego theory requires a plurality of different determinable relations of reference as well as a plurality of different mental qualities.

This kind of difficulty does not arise on any theory that admits of a plurality of existent mental events in the same total mental state. Take, *e.g.*, the second form of the Pure Ego theory. Here the statement that "X cognises A and B, desires A, and does not desire B" may be reduced to "X owns the events *e_A* and *e_B*; *e_A* and *e_B* both stand in the same relation of reference to the objects A and B respectively; and *e_A* has, whilst

e lacks, the quality *d*." There is no inconsistency in this. Omitting for the present the third form of the Non-Central Theory, I think we may say that it is logically possible for all the other theories to account for the facts without assuming a plurality of different determinable relations of reference. Can we go any further than this?

When I try to analyse introspectively such referential situations as seeing a chair, wanting my tea, loving my friend, and hating nationalism, and when I compare them with each other and with other situations which I can introspect, I seem to be pretty certain of the following propositions. (1) That in all these situations an object is being cognised by me. (2) That in each of them something is present beside this object, and that there is an asymmetrical relation between this something and the object. (3) That there is a qualitative difference between the four situations which does not consist in the fact that the objects differ in quality. For I find that desiring my tea and merely thinking of my tea differ in this way, although their objects are the same. And I find that thinking of my tea and thinking of my chair do not differ in this way, although their objects differ very greatly in quality. But I do not find that introspection tells me with any certainty whether this qualitative difference is (*a*) simply a difference in the quality of the non-objective constituents of the situations, or (*b*) simply a difference in the asymmetrical relations between the two constituents, or (*c*) a difference in both. Still (4) there are some facts which make the alternative (*a*) somewhat plausible. There are states which I can introspect, which are called "emotional moods", such as crossness, restlessness, etc. These seem to be non-referential mental states. And it seems that certain emotional moods bear a strong qualitative resemblance to certain emotions, which are referential mental situations. *E.g.*, there is an obvious connexion between the emotional mood

of crossness and the emotion of anger at some definite object. And it would be plausible to express this relation by saying that anger is a state of crossness "directed at" a certain cognised object, that desire is a state of restlessness "directed at" a certain cognised object, and so on. It seems plain to me that the relation of "cognising" is not the same as the relation of "being directed at"; but it does seem plausible to suggest that no relations are involved in the various kinds of referential situation except the two relations of "cognising" and "being directed at" an object; and that the characteristic differences between various kinds of referential situation are wholly due to differences of quality in that which cognises and is directed at the object.

I do not suppose for a moment that this argument is conclusive. In the first place, emotional moods may really be emotions with highly indeterminate objects. *E.g.*, being cross may consist of being angry with "things-in-general". In that case the suggestion that the various kinds of emotion are just so many different kinds of emotional mood "directed at" objects breaks down. Secondly, it is perfectly possible that the relation which the emotional mood of crossness bears to an object in the emotion of anger is a different relation from that which the emotional mood of restlessness bears to an object in the state known as "desire". I do not think that introspection is capable of refuting either of these possibilities. So the upshot of the matter is this. Except on the first form of the Pure Ego theory there is no logical impossibility in the attempt to do without a plurality of different determinable relations of reference to objects. Introspection, so far as I can see, has also nothing conclusive to say against the suggestion. And there are certain facts open to introspection which slightly favour it. The only other point in its support is the methodological principle that entities are not to be needlessly multiplied. But

this is *only* a guide for *our* procedure; it is not a law which is binding upon Nature.

Referential and Non-Referential Situations and the Third Form of Non-Central Theory. I must now remind the reader of a distinction which we drew in Chapter VI, which I have so far kept in the background in this chapter in order to avoid excessive complication. It will be remembered that we distinguished situations into (a) those which do and those which do not refer to epistemological objects, and (b) those which do and those which do not contain objective constituents. These two distinctions we expressed respectively by the phrases "referential" and "non-referential" and by the phrases "objective" and "non-objective". It will be remembered that we said that there are probably mental events which are non-objective and non-referential, *e.g.*, vague feelings; that probably all mental situations which are referential are also objective; and that possibly there are mental situations, such as pure sensations of sounds, coloured patches, etc., which are objective but non-referential. Finally, we must remember that, in perception, memory, etc., the objective constituent of the situation cannot be identified with the epistemological object of the situation or with the ontological object (if there happens to be one) which corresponds to this epistemological object. The position is that to "refer to such and such an epistemological object" is a *property* of any situation which has such and such a structure and such and such an objective constituent. There may be no ontological object corresponding to this: and, even if there should be one, it cannot as a rule be identified with the objective constituent of the situation. And we have seen grave reason to doubt whether, even in the case of veridical perceptual and memory-situations, the objective constituent is ever literally a part of the ontological object which corresponds to the situation.

Bearing these facts in mind, we can see that the various alternative theories have been stated too simply

as regards referential situations. Such an event as "I am seeing a chair" cannot really consist in the fact that a certain Pure Ego is now standing in a certain relation to a certain chair; at best it can only consist in the fact that a certain Pure Ego is standing in a certain relation to a certain sensum. If the perceptual situation be veridical this sensum also stands in a certain peculiar relation to a certain chair; but at that stage we have left the *psychological* analysis of minds and mental events, and are entering the region of epistemology and ontology. Similar remarks apply, *mutatis mutandis*, to referential situations on all the alternative theories. Suppose we hold that a referential situation consists in the fact that a certain *event*, and not a certain Pure Ego, stands in a certain relation to a certain object. We must still recognise that the object to which the event stands in this relation is *not* the chair, or table, or what not, which corresponds to the epistemological object of the situation; even if there be such a thing, as there often is not. The object to which the event stands in this relation is a certain sensum or image; and the further question whether there is an ontological object corresponding to the epistemological object of the situation, and, if so, how the sensum or image is related to this ontological object, does not arise in the psychological analysis of the situation.

Since these remarks apply equally to all theories about the structure of the mind they do not directly help us to decide between the various alternatives. But they enable us to say something further about the third form of the Non-Central theory, *i.e.*, the view that a mind is composed of its objects, suitably interrelated, and that it has no other constituents. The natural interpretation of this theory would be that the mind consists of the chairs, tables, people, pink rats, unicorns, etc., which it is said to be "aware of"; *i.e.*, that its constituents are the objects which it refers to, and that it has no other constituents. Now this is certainly false.

When a drunkard perceives a pink rat it is impossible that one of the constituents of his mind can be the pink rat that he is perceiving; for there are no pink rats to be constituents of anything. And in general we may say that, even when there is an ontological object corresponding to a referential state of mind, *this* object is not a constituent of the state and, *a fortiori*, is not a constituent of the mind. Thus the theory that the constituents of the mind are what would commonly be called its "objects" has no plausibility whatever if by "its objects" you mean the things to which it refers in its referential states of mind. The theory is worth discussing only on the assumption that by "its objects" we mean the *objective constituents* of its objective states of mind. The difference between the two alternatives is roughly this. On the first interpretation the theory asserts that the constituents of the mind are the *things* that it perceives, the *events* that it remembers, and so on. This, as I have said, may be rejected at once as absurd. On the second interpretation the theory asserts that the constituents of the mind are the *appearances to it* of the things that it perceives, of the events that it remembers, and so on. This, so far as I can understand, is the form of the theory which Mr Russell defends in his *Analysis of Mind*; and it is certainly the only form of it which is capable of defence. Now, such a theory makes certain assertions and certain denials. (1) It asserts that *sensa* and *images* are constituents of minds. (2) It denies that they have any other constituents. (3) Mr Russell further asserts that *sensa* are constituents of physical objects, though he is not bold enough to assert that *images* are constituents of past events. We may leave this third assertion, which is not strictly relevant to our present discussion, and confine ourselves to (1) and (2).

The assertion (1) would not commonly be regarded as particularly startling. Probably most philosophers in the past have regarded *sensa* and *images* as constituents

of minds. The difference between them and Mr Russell here is simply that he regards *sensa* as being constituents of physical objects as well as being constituents of minds, whilst they would almost certainly have held that what is a constituent of a mind cannot also be a constituent of a physical object. It is in the denial (2) that Mr Russell's theory would commonly be held to be paradoxical. It would commonly be held that any mind contains other constituents beside *sensa* and *images*. In so far as Mr Russell denies that a mind contains a perfectly unique constituent—a Pure Ego—in addition to *sensa* and *images* a great many psychologists and philosophers would agree with him. But most people would say that, if the mind had no constituents except *sensa* and *images*, it would be impossible to account for the distinction between non-objective mental events, such as feeling cross or tired, and objective mental events, such as sensing a flash or seeing a gun. I am not at all clear what answer Mr Russell would make to this objection. At certain points in his *Analysis of Mind* he makes great play with "feelings" of various specific kinds, *e.g.*, "belief-feelings", "feelings of familiarity", "feeling of reality", and so on. But he does not seem to make it very clear what he supposes these "feelings" to be. Are they supposed to be *sensa* or *images* of a peculiar kind? If so, the words "*sensum*" and "*image*" are being used with so wide a meaning that the statement that the *only* constituents of the mind are *sensa* and *images* is hardly worth making. For it amounts to little more than a denial of the Pure Ego theory; and Mr Russell presumably intended to do more than flog what most of his contemporaries rightly or wrongly regard as a dead horse. I notice that whenever Mr Russell is dealing with a plainly objective mental state, such as a memory or a belief, he introduces a "feeling" in addition to a group of ordinary *sensa* and *images*. Moreover, it is of no use to say simply that a belief, *e.g.*, is such and

such a group of *sensa* or images "accompanied by" such and such a feeling. This phrase "accompanied by" must stand for some more specific relation than mere coexistence within the same total mental state. For, at a given moment I may believe one proposition and merely suppose another proposition. If a belief-feeling "accompanies" the first set of images and *sensa*, it must equally "accompany" the second set, unless "to accompany" means something more specific than to "coexist with in the same total mental state". And it is evident that Mr Russell *must* mean something more specific by "accompaniment"; for the belief is to be distinguished from the contemporary supposition by the fact that a certain feeling "accompanies" the one set of images and does not "accompany" the other and coexistent set of images.

Now, I understand Mr Russell's programme in the *Analysis of Mind* to be roughly the following. I think he wants to show (a) that the ultimate constituents of a mind have no qualities which are not also possessed by constituents of things which are not minds. In support of this he asserts that the only constituents of a mind are *sensa* (which he believes to be also constituents of physical objects) and images (which, though not constituents of physical objects, are supposed to differ from *sensa* only in their causal characteristics and their spatio-temporal relations and not in their qualities). (b) That the characteristically "mental" property of reference to such and such an epistemological object is completely analysable into causal and other relations, which occur separately or in other combinations among physical things. (c) That the characteristic qualities of certain groups of *sensa* and images within a mind, and the characteristic relations of such groups to each other, are completely analysable into qualities and relations which occur separately or in other combinations among groups of *sensa* which are not contained in minds. And (d) that, consequently, even if introspection be

possible, it has nothing special to teach us. I hope that this is a fair account of what Mr Russell is trying to do.

Now it seems to me that, so long as such a cloud of darkness hangs over the nature of "feelings" and the nature of the relation of "accompaniment", it is doubtful whether Mr Russell has even begun to fulfil this programme. If a "belief-feeling", *e.g.*, be neither a *sensum* nor an image, then presumably some of the ultimate constituents of the mind do possess qualities which are not possessed by the constituents of physical objects, and section (a) of the programme is abandoned. Nor is the case very much better if we suppose that a feeling is either (a) a single *sensum* or image, or (β) a certain group of *sensa* or images, which possesses a peculiar "feeling-quality" in addition to the ordinary qualities of *sensa* and images. It is extremely hard to believe that a *sensum* could possess the quality of "familiarity", *e.g.*, when it was only a constituent of a physical object and not a constituent of a mind. And, if "familiarity" or "conviction" be qualities of certain groups of *sensa* or images, it is extremely hard to believe that they can be anything but *emergent* qualities of such groups; *i.e.*, qualities which are *possessed by* groups having such and such a structure and such and such constituents but are not *deducible from* a knowledge of the structure of the group and the qualities of its constituents. On either alternative there will be specific and unanalysable *mental* qualities. And this directly wrecks section (c) of Mr Russell's programme, and indirectly wrecks section (d). For, if "familiarity", *e.g.*, be a quality which attaches to a *sensum* *only* when it becomes a constituent of a mind, or if it be an *emergent* quality of groups of *sensa* or images which occur *only* within minds, introspection will have something to teach us which we can learn from no other source. Introspection will not indeed disclose any ultimate existent constituent which we might not have

met with in ordinary perception; but it will disclose certain qualities which we could never have met with otherwise, and it will disclose the fact that these qualities belong to groups which have such and such a structure and such and such constituents.

Finally, I think it is extremely likely that there are characteristically "mental" forms of structure, which cannot be analysed in terms of relations which hold between *sensa* that are not constituents of minds. At any rate I cannot see that Mr Russell has produced any ground for doubting this proposition. Let us take an example. We are told that the difference between a mere "sensation" and a "perception" consists in the fact that in one case a *sensum* occurs without, and in the other case with, certain "accompaniments" in the way of other *sensa*, bodily feelings, images, etc. And we are told that these "accompaniments" are explicable by *mnemic causation*, which is not peculiar to minds but occurs in purely physiological and biological phenomena also. To this I answer that the blessed word "accompaniment" tells us nothing. The essential point is, that in the perceptual situation these various factors do not merely coexist, but are related in a perfectly unique way to form that perfectly unique kind of whole which we call a "perception of so-and-so". The uniqueness of this kind of whole is in no way impugned by the statement that it is due to *mnemic causation* and that *mnemic causation* occurs also outside the mind. It is no doubt true that the other factors in a perceptual situation would not be added to the *sensum* which is its objective constituent unless the mind had the powers of retentiveness, reproduction, and so on. And it is no doubt true that we find powers of retentiveness, reproduction, and so on, in living bodies as well as in minds. This does not alter the fact that, in the perceptual situation, these various factors which are due to *mnemic causation* are fused with each other and with the objective constituent in a perfectly unique and character-

istic way, to which (so far as we know) there is no analogy outside the mind. Thus it seems to me that Mr Russell has failed to show that there are not specific and unanalysable "mental" relations between different constituents of the same mind.

I may now sum up my remarks on the third form of the Non-Central theory as follows. (1) It is, of course, open to any general objections which there may be to Non-Central theories as such. (2) If it be taken to assert that the constituents of the mind are the objects that it perceives, the events that it remembers, and so on, it is certainly false. For in many cases there is no ontological object which corresponds to a perceptual situation, and no event which corresponds to a memory-situation. And, even when such situations are veridical and have ontological objects which correspond to their epistemological objects, these ontological objects are not constituents of the situations, and, *a fortiori*, are not constituents of the mind which owns the situations. (3) The theory must, therefore, be accepted, if at all, in something like Mr Russell's form of it, which makes the constituents of the mind to be the *sensa* and images which are appearances to it of the objects that it perceives and the events which it remembers. But, even in this form, it requires "feelings" in addition to ordinary *sensa* and images; and specific relations between certain feelings and certain groups of *sensa* and images. And at that stage it differs very little from the other forms of Non-Central theory. The difference consists mainly in the fact that Mr Russell regards *sensa* as constituents of physical objects, whilst most philosophers who would admit that *sensa* are constituents of the mind would deny that they are also constituents of physical objects. But this is a difference about the nature of physical objects, and not a difference about the contents and structure of the mind. (4) I have also tried, incidentally, to show that Mr Russell has accomplished little, if anything, of his attempt to get rid of the uniqueness

of mind. The fact is, that the more one insists on the community of *stuff* between mind and its objects, the more one will have to insist on the radical differences of *structure* between the two, and on the emergence of new *qualities* in those structures which are peculiar to mind as contrasted with matter.

Central and Non-Central Theories. We can now consider the great division of theories about the unity of the mind into Central and Non-Central theories. I will begin with two preliminary remarks: neither of them is conclusive, and they bear in opposite directions. (1) The *prima facie* presumption in favour of Central theories and against Non-Central theories is the common usage of language, which strongly suggests the existence of a Centre. We say: "*I* am thinking of this book, and wanting my tea, and feeling tired, and remembering the tie that my friend wore yesterday." This certainly suggests that "*I*" is the proper name of a certain existent which stands in a common asymmetric relation to all those contemporary mental events. We say further: "*I*, who am now doing and feeling these things, was yesterday doing, thinking, wanting, and feeling such and such other things." And this certainly suggests that "*I*" is the proper name of something which existed and was a centre yesterday as well as to-day. Now, as I have said before, it is unwise either to follow blindly the guidance of language or to ignore it altogether. Supporters of Non-Central theories can reply that they too admit that there is something which can be called "*I*". It is not indeed a constituent of my empirical self; it is the whole complex of interrelated mental events which are said to be "*mine*". To this I think that the following answer must be made. No doubt the ordinary man would find it difficult or impossible to tell us what he is referring to when he uses the word "*I*"; but it is extremely doubtful whether he means to refer simply to the fact that the mental events which he calls "*his*" are interrelated in certain

characteristic ways. I doubt whether anyone except a philosopher engaged in philosophising believes for a moment that the relation of "*himself*" to "*his toothache*" is the same relation as that of the British Army to Private John Smith. Now, I am not suggesting that we should accept a theory because it seems to be implied by the statements of plain men. God forbid! But I do suggest that any satisfactory theory must account for the fact that plain men and philosophers in ordinary life express themselves in language which strongly favours one alternative. Now, as I have said in Chapter IV, I can quite understand that a unity of centre might appear to be a pure unity of system if the Centre were such that it could not be directly inspected. But I cannot imagine any reason why what is in fact a pure unity of system should appear to be a unity of centre. That the mind does *appear* to be of the latter kind seems pretty certain. And I think that this fact must be regarded, *pro tanto*, as favouring Central Theories.

(2) The main preliminary argument against Central theories and in favour of Non-Central theories is the alleged fact that no Existent Centre can be directly observed; that the Centre is in fact postulated *ad hoc* to explain the observed unity, and, if the unity can be explained without it, so much the better. This kind of argument has been used at two different stages in the history of the subject. (a) It has been used in favour of Non-Central theories as against Central theories. (b) In these latter days it has been carried further, and used in favour of the third form of Non-Central theory. For, it has been said that we cannot directly observe relations between the mind and its objects. When we try to *introspect*, it is alleged, we find ourselves merely *inspecting* what I have called the "*objective constituents*" of mental situations, *i.e.*, *sensa* and images. Hence it is more prudent to take the view that the mind consists of nothing but such objective constituents interrelated in certain characteristic ways. I have dealt incidentally

with both these arguments in the chapter on Introspection. The fact that the Centre never becomes an object of introspection is no objection to the existence of a Centre unless a Centre be the sort of thing which we might reasonably hope to be able to introspect if it existed.* Now, if there were a Centre which is a non-objective constituent of *all* our mental states, it seems unreasonable to expect that it could *also* be an objective constituent of some of our states. To put the matter generally:—The relation of acquaintance is essentially asymmetrical, and this implies that the term which has acquaintance cannot be identical with the term with which it is acquainted. Thus, if there were a Centre, it could not be acquainted with itself as a whole. Now, if the Centre were a Pure Ego, it would have no parts; hence, if it could not be acquainted with itself as a whole, it could not be acquainted with itself at all. On the other hand, it might be acquainted with facts of which it is a constituent; and, by comparing and reflecting on these facts, it might come to a discursive knowledge of its own existence and nature. If the Centre were not a Pure Ego, but were a Central Event of long duration and very uniform quality, there is no reason why situations should not arise, in which the non-objective constituent is a later slice of this long event and the objective constituent is an earlier slice of this same long event. But then it is by no means certain that such situations do not arise. If the centre be a continuous strand of very uniform bodily feeling it is by no means certain that I cannot now remember the particular slice of this strand which formed the Centre of my total mental state some time ago. It seems to me therefore that there is very little in this preliminary objection to Central theories.

As regards the further extension of this argument in favour of the third form of the Non-Central theory I can only repeat what I said at the end of Chapter VI. The argument seems to assume that, if objective mental

situations consisted of an objective and a non-objective constituent related in a certain way, the relation (which is an universal) must be known in the same way as the objective constituent (which is a particular). And this demand is absurd. It also seems to forget that some of the constituents of a total situation may be sensed or felt though they cannot be selected or inspected. In that case they may *be* there in addition to the objective constituent, and we may *know* that they are there (as it seems to me that we do), although we do not at the time *inspect* anything but the objective constituent.

So much for the two preliminary arguments. Neither is very strong and they cut in opposite directions; so that at worst we may regard them as neutralising each other. But, on the whole, the argument *for* Central theories from the facts of language seems to me to be slightly stronger than the argument *against* Central theories from alleged negative facts about introspection. For the first argument does remind us of a certain very persistent "appearance" which any satisfactory theory about the unity of the mind will have to "save"; and it is certainly easier to "save" it on the Central than on the Non-Central type of theory. And the second argument does seem to consist in doubting the reality of something merely because it is not known in a particular way in which, from the nature of the case, it *could not* be known *even if it were real*.

I pass now to what seems to me to be the really crucial question between Central and Non-Central theories of the unity of the mind. This question concerns the nature of mental events, and may be put as follows: "Can we take the notion of 'mental event' as fundamental, and define the notion of 'mental substance' in terms of mental events and certain relations between them? Or must we conceive a 'mental event' as consisting in the fact that a certain Centre has at a certain time such and such a determinate quality, or such and such a determinate relation to other things?"

In order to deal with this question it will be wise to consider the partly (but only partly) analogous question of material events and material substances. It seems easier to take the notion of "material event" as fundamental and the notion of "material substance" as derivative than to do likewise with the notions of "mental event" and "mental substance". But I believe that this is due to the fact that most of us tacitly assume something like the Newtonian theory of Absolute Space. I shall (i) show why this is so ; (ii) show that, on this view, we have not really got rid of a plurality of existent substances as a fundamental notion ; and (iii) show that, on this view of material events, there is no very close analogy between them and mental events ; so that, even if we could take the notion of "material event" as fundamental and the notion of "material substance" as derivative by this means, we should have no reason to suppose that we could do likewise with the notions of "mental event" and "mental substance."

(i) If we think of Space as a kind of pre-existing substance, we can of course think of a material event as the fact that a certain region of Space is characterised throughout at a certain moment by a certain determinate form of a certain determinable quality (*e.g.*, by a certain shade of a certain colour). Now the same region of Space can be characterised throughout at the same moment by determinate forms of a number of different determinable qualities (*e.g.*, by a certain shade of a certain colour, by a certain degree of temperature, and so on). Thus we can suggest with some plausibility that the unity of a total state of a certain material substance at a certain moment consists in the fact that at this moment a certain region of Space is characterised throughout by determinate forms of certain determinable qualities. Again, at a given moment, a number of separated regions of Space may each be characterised throughout by the same (or different) determinate forms of the same determinable qualities ; and the intervening

regions, which surround and separate these, may not be characterised by these determinable qualities at all. We can thus suggest with some plausibility that a plurality of contemporary total states of different co-existing material substances consists in the facts just mentioned. Finally, a certain region of Space may continue for some time to be characterised throughout by the same (or by continuously varying) determinate forms of the same determinables ; and may continue to be surrounded by regions which are not characterised by these determinables. It is plausible to suggest that this is what we mean by saying that a certain material substance has persisted and has rested for so long in a certain place. Or, alternatively, the same (or continuously varying) forms of the same determinable qualities may successively characterise a set of regions which together make up a continuous region of Space, which is surrounded by regions that are not characterised throughout this period by these determinables. It is plausible to suggest that this is what we mean by saying that a certain material substance has persisted and has moved about during this period.

No doubt every one would admit that something more than this is needed to complete the notion of persistent material substances. But it might be suggested that the "something more" is merely a causal unity between those successive events which are counted as successive total states of the same material substance. This causal unity would consist in the fact that the variations in the determinate forms of these determinable qualities which characterise successive total states of a single material substance follow certain laws.

(ii) There are considerable difficulties in this view, as I pointed out in Chapter I, when we remember that some material substances are homogeneous fluids and not solid particles with definite boundaries separated by regions of empty Space. But the point on which I want to insist here is a different one. Even if it be granted

that by this means we make the notion of particular material substances (like "this penny" or "that electron") derivative as compared with the notion of material events, we must admit in turn that the notion of a material event is not simple and that it involves the notion of something which can only be called a "substance." For what is a material event, on this theory, but the *fact* that such and such a region of Space is characterised throughout by such and such determinate forms of such and such determinable qualities? And what is a region of Space, on this theory, but a timeless particular in which sometimes one quality, sometimes several qualities, and sometimes perhaps no qualities, inhere? And what is the plurality of different regions of Space, in terms of which the plurality of coexisting material substances is defined on this theory, but a plurality of timeless particulars which differ *solo numero*?

(iii) It is plain that no form of Non-Central theory about mental events and mental substances could be at all closely analogous to the above theory about material events and substances. For the theory just described is essentially a peculiar form of Central Theory. At any given moment each total state of each material substance has its own Centre, viz., a certain region of Space which the substance is said to "occupy" at that moment. But (*a*) successive total states of the same material substance may have different Centres. For, when a material substance is said to "move about", the Centre of each of its successive total states is the region which it is said to "occupy" at each successive moment. And (*b*) the same Centre may at different times unify total states of different material substances. This happens if one material substance "moves out of a certain place" and another material substance "moves into this place". For the region in question would be first the Centre of an earlier total state of the first material substance, and then the Centre of a later total state of the second material substance.

An analogous theory about mental events and minds would be a peculiar case of the first form of Pure Ego theory. Every total mental state would be the fact that a certain Pure Ego has such and such determinate forms of such and such determinable qualities at a certain moment. If there be a plurality of coexisting total mental states, each of them will belong to a different Pure Ego. But (*a*) successive total states of the same mind might belong to different Pure Egos; and (*b*) the same Pure Ego might be the Centre of successive total states of different minds. (These cases could arise only if there were changes in the mental realm analogous to motion in the material realm; and there might of course be no reason to believe this, or positive reason to disbelieve it.)

I will now sum up the argument as far as it has gone. (*a*) The view that material events are logically prior to material substances is rendered plausible by the tacit assumption of something like Absolute Space, in Newton's sense. (*b*) But the analogous view about mental events and substances would be a form of Pure Ego theory, and not a form of Non-Central theory. Hence (*c*) however successful this type of theory may be for material events and substances, its success cannot be used to support by analogy a Non-Central theory of the unity of the mind. On the contrary, the analogy would support the first form of Pure Ego theory, though it would suggest certain possibilities which have not generally been contemplated by upholders of the Pure Ego theory.

The next stage in my argument is this. I shall consider (i) whether the theory that material events are logically prior to material substances can be stated and rendered plausible without the assumption of something like Absolute Space in Newton's sense. And then (ii) I shall consider whether, even if this be so, mental events and their qualities and relations bear enough analogy to material events and *their* qualities

and relations to make a similar theory about mental events and substances plausible.

(i) We must of course begin by admitting the *facts* which have already been described on the assumption of Absolute Space in Newton's sense; and we must then try to reinterpret them without this assumption. Probably there are several alternative ways of doing this; but the following seems to me to be the easiest to state briefly, and to be theoretically possible.

(a) I begin by distinguishing two fundamentally different, though intimately connected, kinds of determinable quality, viz., Positional and Non-Positional Qualities. There are two generally recognised determinable Positional Qualities, viz., Temporal and Spatial Position. A Non-Positional determinable quality can only be defined negatively as any determinable quality, such as colour or temperature, which is not positional like "being in such and such a place" or "being at such and such a date". (b) A completely determinate form of any Non-Positional Quality can characterise a number of numerically diverse particular existents. Any particular existent which is characterised by some determinate form of some Non-Positional Quality will be called "an instance of that quality". It will also be called an instance of that determinate form of this quality which characterises it. (c) Every particular existent is characterised by some determinate form of the determinable quality of Temporal Position. (d) All the instances of certain Non-Positional Qualities must *also* be characterised by some determinate form of the determinable quality of Spatial Position. Such Non-Positional Qualities will be called "Material Qualities". There are other Non-Positional Qualities whose instances are not necessarily characterised by any determinate form of the quality of Spatial Position. These will be called "Immaterial Qualities". (e) The same particular existent cannot be characterised by different determinate forms of the quality of Temporal Position;

i.e., every particular existent is instantaneous. (f) If a particular existent is characterised by the quality of Spatial Position it cannot be characterised by two different determinate forms of this quality; *i.e.*, all particular existents which are instances of Material Qualities are punctiform as well as instantaneous. We may therefore call them "Point-Instants". (g) There can be a plurality of particular existents having the same determinate quality of Temporal Position and the same determinate form of the same Non-Positional Quality. If they be instances of a Material Quality they will of course have to have different determinate forms of the quality of Spatial Position. (h) There can be a plurality of particular existents having the same determinate form of the quality of Spatial Position and the same determinate form of some Non-Positional Quality. They will of course have to have different determinate forms of the quality of Temporal Position. (i) The same particular existent may be characterised by determinate forms of a number of different Non-Positional Qualities. It is to be noted that nothing that we have said precludes the possibility that the same particular existent may be an instance both of Material and of Immaterial Qualities. It is true that, if it be characterised by a Material Quality it *must* be also characterised by the quality of Spatial Position; and that, if it be characterised by an Immaterial Quality, it *need not* be characterised by the quality of Spatial Position. But we have not said that what is characterised by an Immaterial Quality *cannot* be characterised by the quality of Spatial Position. (j) Every particular existent is an instance of some Non-Positional Quality in addition to being characterised by some determinate form of the determinable quality of Temporal Position.

So far we have considered only the instantaneous and the punctiform. We take the fundamental constituents of the material world to be instantaneous punctiform particulars, each of which has a determinate quality of

Temporal Position, a determinate quality of Spatial Position, and determinate forms of one or more Non-Positional Qualities. *Paulo majora canamus.* (a) The various determinate qualities under the determinable of Temporal Position form a continuous one-dimensional order, as, e.g., do the determinate qualities under the determinable of Temperature. (It used to be assumed that all point-instants fall into a single temporal series. The facts on which the Special Theory of Relativity is based suggest that this is probably not true. They suggest that, while every point-event falls into *some* series of this kind, they do not all fall into *the same* series. But we need not bother about these complications for the present purpose.) (b) The various determinate qualities under the determinable of Spatial Position form a continuous three-dimensional order, as, e.g., do the determinate qualities under the determinable of Colour. Point-instants are thus ordered in various ways, and stand in various temporal, spatial and spatio-temporal relations to each other in virtue of the determinate qualities of Temporal and Spatial Position which characterise each point-event. (c) Now there are certain determinable qualities which cannot characterise an individual point-instant, but which can and do characterise certain complex wholes composed of point-instants related to each other in certain ways in virtue of their various Positional Qualities. I will call these "Extensional Qualities". (d) The only Extensional Quality connected with Temporal Position and the relations which it generates is Duration. If a set of point-instants vary continuously in their qualities of Temporal Position, the whole composed of them has a certain determinate duration, which depends upon the determinate relation between the determinate qualities of Temporal Position which characterise the first and the last point-instant of the set. (e) The Extensional Qualities connected with the quality of Spatial Position are more complicated, because the determinates under the determinable of

Spatial Position form a three-dimensional order. We have here the two interconnected determinable Extensional Qualities of Shape and Size. There is no need to go into elaborate details. If a whole composed of point-instants is to have shape and size the first condition is that all the point-instants shall have the same determinate Temporal Position. The other condition is that the determinate qualities of Spatial Position possessed by the various point-instants of the set shall vary continuously. The determinate shape and size possessed by this complex whole will then depend on the determinate relations between the determinate qualities of Spatial Position which characterise the various point-instants which form the boundary of the set. We might sum the matter up by saying that Extensional Qualities are emergent from the relations between different determinate forms of a determinable Positional Quality. Positional and Extensional Qualities might be classed together under the general name of "Structural Qualities"; and they might then be distinguished from each other by the names of "Primitive" and "Emergent" Structural Qualities respectively.

(f) We must now draw some rather similar distinctions among Non-structural Qualities. We may divide them first into those which can characterise individual point-instants and those which cannot. The former may be called "Primitive" and the latter "Non-primitive". The Primitive Non-structural Qualities can be subdivided into (1) those which can characterise only point-instants; and (2) those which can characterise both point-instants and extensional wholes composed of suitably interrelated point-instants. These might be distinguished as "Non-extensible" and "Extensible" Non-structural Qualities respectively. The Non-primitive Non-structural Qualities might be subdivided into (1) those which can characterise any extensional whole, no matter what may be its determinate duration, shape, or size; and (2) those which can characterise only

extensional wholes which have a certain minimum size, or duration, or a certain determinate shape, etc. The former might be called "Homogeneous" and the latter "Non-Homogeneous" Non-structural Qualities.

Granted all this, we can see how the notion of a material substance can be defined. We will begin with the simplest possible case, and gradually complicate it. (a) Imagine a set of point-instants which fulfil the following conditions: (1) They all have the same determinate quality of Spatial Position. (2) Their determinate qualities of Temporal Position form a continuous series, so that the whole composed of these point-instants has a certain determinate duration. (3) Each of them is an instance of several determinable Material Qualities, the same in each case. And each of them is an instance of the same determinate form of any given one of these Material Qualities. A whole of this kind is a material particle which endures for a period, stays in one place for that period, remains unaltered in quality throughout the period, and at each moment has a plurality of different states. (b) We can now keep all the conditions as before, except that the various point-instants are to have different determinate values of some of the determinable Material Qualities which characterise them all. We now have a material particle which endures, stays in one place, and has a plurality of states at each instant, but changes in some respects during the period. (c) Now alter condition (1). Let the various point-instants of the series no longer all have the same determinate quality of Spatial Position. Instead let the determinate qualities of Spatial Position of the successive point-instants vary continuously from one to another. The whole composed of these point-instants is now a material particle which endures, has at each instant a plurality of different states, changes qualitatively as time goes on, and also moves about. (d) We can now further complicate matters by considering suc-

cessive sets of contemporary point-instants. Suppose that each set consists of point-events which are exactly alike in all respects except that they have different determinate qualities of Spatial Position. And suppose that these determinate qualities of Spatial Position vary continuously from one point-instant of the set to another. Then the set as a whole will have some determinate size and some determinate shape; it will form a line, or an area, or a volume. Suppose now that every point-instant in this set is a member of a series of successive point-instants of the kind which we have called a "material particle" and have described in (a) to (c). Suppose further that every set of contemporary point-instants, such that one point-instant of the set belongs to each of these material particles, is a whole of the kind which has Shape and Size. Then we have got a persistent *body* of finite spatial dimensions. And we could quite easily define the conditions under which we should say (1) that this body rests and keeps its shape and size constant, or (2) that it rests and alters in shape and size, or (3) that it moves and keeps its shape and size constant, or (4) that it moves and alters its shape and size. Lastly (e), having got our finite persistent bodies, we can introduce Non-primitive Non-structural Qualities; some of them might be Homogeneous, as perhaps mass is; others might be spatially Heterogeneous, *i.e.* requiring a whole of a certain minimum size to inhere in, as is probably the case with electric charge; and others might be temporally Heterogeneous, *i.e.*, requiring a whole of a certain minimum duration to inhere in, as is probably the case with magnetic properties.

I have now tried to show in detail how it would be possible to take the notion of a material event as fundamental, and to construct the notion of material substances out of it, *without* assuming Absolute Space in Newton's sense. It is to be noted that, in another sense, we have assumed both Absolute Space and Absolute Time. We have assumed that there are spatial and

temporal positional *qualities*, and that spatial and temporal relations depend on them. Thus our theory of Space and Time is absolute, in the sense that it is not purely relational. But it is not absolute, in the sense that it makes the points of Space and the moments of Time to be existent substantives of a peculiar kind, as Newton's theory does. The only existent substantives which we assume are instantaneous punctiform particulars, which have determinate qualities of Spatial and Temporal Position and determinate forms of determinable Non-positional Qualities. Certain sets of these form wholes which have the qualities of shape, size, and duration, in virtue of the relations between their Positional Qualities. Adopting a distinction of Mr Johnson's, we may say that we have assumed an "adjectival" and not a "substantival" form of the Absolute Theory.

(ii) I can now pass to the second part of my argument. Granted that it is possible to take the notion of a material event as fundamental and to derive the notion of a material substance, without smuggling back the notion of substance under the guise of Absolute Space in Newton's sense, is it possible to do likewise with mental events and mental substances?

First of all, what are the relevant differences between the facts in the two cases? The fundamental difference seems to be this. Mental qualities are what I have called "Immaterial"; *i.e.*, although any existent particular which is an instance of a mental quality must have some determinate quality of Temporal Position, it need not (and, so far as we know, does not) have any form of the quality of Spatial Position. It follows that, although a series of instantaneous mental events may form a whole which has the Extensional Quality of duration, a set of contemporary mental events will not form a whole which has the Extensional Qualities of size and shape. Now, if two contemporary *material* events have the same determinate form of the same Non-

positional Quality, we know that they must have different determinate forms of the quality of Spatial Position. It is logically possible for there to be two contemporary *mental* events which have the same determinate form of the same Mental Quality (*e.g.*, it is *logically* possible that there might be two precisely similar contemporary thoughts of the same object, even if there is reason to think that this is *causally* improbable or impossible). Now there seem to be only two alternative ways of explaining this fact. The two precisely similar thoughts must either belong to different Pure Egos, or there must be some non-spatio-temporal Positional Quality of which they possess different determinate forms.

I said that there are only two *commonly recognised* determinable Positional Qualities, *viz.*, Temporal and Spatial Position. We now see that, if we want to make up a theory of mental events and substances analogous to that which we have suggested for material events and substances, we must assume a third determinable Positional Quality which we might call the quality of "Mental Position". We must suppose that every mental event is an instantaneous particular which has a certain determinate Temporal Position and a certain determinate Mental Position. Two mental events may agree in every other respect, provided that they differ in Temporal Position; and two mental events may agree in every other respect, provided they differ in Mental Position; but they must have different determinate forms of one or other of these Positional Qualities. With this assumption it would, I think, be possible to take the notion of "a mind" as definable. A total state of mind would be an instantaneous particular existent, which (*a*) has a determinate quality of Temporal Position, (*b*) has a determinate quality of Mental Position, and (*c*) is an instance of several different Mental Qualities. Suppose now that there were a set of instantaneous events, having the following characteristics. (*a*) They all have the

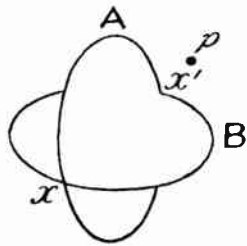
same determinate quality of Mental Position. (b) They all differ in their Temporal Position, and their determinate qualities of Temporal Position form a continuous series, so that they form a whole which has a certain determinate duration. (c) They all have the same determinable Mental Qualities. (d) They all have the same determinate form of some of these Mental Qualities. (e) Some of them have different forms of some of these Mental Qualities, but these different determinate forms of the same determinable Mental Quality vary continuously from one instantaneous event of the set to another. Then the whole thus formed might fairly be called a "mind", which endures, has a number of different mental "states" at each moment, changes its states as time goes on, and so on.

It will be noticed that the kind of enduring whole which I have just been describing as a "mind" is analogous, not to a body, but to a material particle. And, for reasons which will appear in a moment, it will be better not to call this very simple kind of mental whole a "mind". We will call it a "mental particle" instead. I will now explain why I make this suggestion. We know that the determinate qualities under the determinable of Spatial Position form a continuous manifold of three dimensions, like the determinate qualities under the determinable of Colour. Now I suggest that the determinate qualities under the determinable of Mental Position may form a manifold of more than one dimension; and that, if this be so, we can form a conception of the phenomena of the Unconscious, of Multiple Personality, of Telepathy, and so on, in terms of the present theory. A body consists of a number of material particles, such that any set of contemporary point-instants chosen from each of these material particles forms a whole which has a certain size and shape. And the condition for this is that the determinate qualities of Spatial Position of these point-instants vary continuously from one point-instant of the set to another. Now sub-

stitute mental particles, as defined above, for material particles; and substitute Mental Position for Spatial Position. Then, if the determinate qualities under the determinable of Mental Position form a manifold of more than one dimension, a mind may be analogous to a body and may have something analogous to size and shape. Two entirely different minds might then be analogous to two entirely separate bodies. Now two bodies may come into contact at certain times, and they may touch each other at a point, or along a line, or over an area. Similarly, if the determinates under the determinable of Mental Position form a manifold of more than one dimension it will be possible for there to be "mental contact" of various kinds between minds, if a mind be what I am now suggesting that it is. This might be what happens when telepathic communication takes place between two minds.

I will now consider how the facts of Multiple Personality might be explained in terms of such a theory of mind as I am now suggesting. It is not unreasonable to suppose that all the mental events connected with a certain living brain and nervous system have determinate qualities of Mental Position which fall within certain limits or are interrelated in some special way. Let us suppose, *e.g.*, that the relative mental positions of all the mental events connected with a brain and nervous system at a given moment are such that these mental events may be represented by points on the surface of a certain sphere. It would be reasonable to suppose that the determinate mental positions of all the mental events that belong to a single personality are interrelated in some still more special way. Let us suppose, *e.g.*, that the relative mental positions of all the mental events that belong to a single personality at a given moment are such that these mental events may be represented by a *continuous series* of points forming a *great circle* on the surface of the sphere. Now it might happen that the mental events connected with a single brain and

nervous system at a certain moment can be divided into three sub-groups, as follows. (A) Those whose representative points form a continuous great circle A on the sphere. (B) Those whose representative points form another continuous great circle B on the sphere. (C) Those whose representative points are isolated dots on the sphere. The diagram below will make this plain.



Then the great circles A and B will represent two contemporary total states of two personalities A and B connected with the same body. The points x and x' in which these two great circles intersect will represent mental events which are common to the two personalities at this moment. And the isolated dots, such as p , will represent mental events which are connected at the moment with this brain and nervous system but do not belong to any personality. It would of course be possible to represent any number of different personalities connected with the same body by introducing other great circles continuously filled with mental events. On this representation the relations between the personalities are symmetrical; but it would be easy to devise a representation of the case in which A shares all B's mental events and has other mental events which are not shared by B. *E.g.*, B might be represented by the same great circle as before; A might now be represented by the upper hemisphere which stands upon this, supposed to be continuously occupied by mental events; whilst events that belong to neither might be represented by isolated dots on the lower hemisphere.

It is needless to go into further detail. The essential point to notice is that it would be difficult to deal with the facts of abnormal and supernormal psychology if we identified a mind with a single mental particle, whilst it is easy to deal with them on the following two assump-

tions. (a) That the determinates under the determinable of Mental Position form a manifold of several dimensions; and (b) that a mind consists of a number of mental particles, such that the mental positions of contemporary mental events from each particle vary continuously from one mental event to another, so that a mind has something analogous to size and shape.

There is one other point to notice. It is almost certain that the Immaterial Non-Positional Qualities which we are familiar with in the case of minds are non-homogeneous in respect to time. By this I mean that they cannot characterise single instantaneous mental events, but only wholes which are composed of certain continuous series of mental events and have a certain minimum duration. I think it very likely too that the Mental Qualities with which we are familiar can characterise only wholes which have a certain minimum of "Mental Extension".

Conclusion. So far as I can see then, there is no *a priori* objection to the view that the notion of "mental event" can be taken as fundamental and that the notion of "mind" or "mental substance" can be derived from it. It remains to be seen whether there are any special empirical facts which make for or against this view. (1) I think that it would have no particular advantage over the Pure Ego theory if we were confined to the psychology of normal human minds. But it does seem to have great advantages over the Pure Ego theory when we are concerned with the facts of abnormal and supernormal psychology; just as the corresponding theory about material substances has very great advantages when we are concerned with abnormal physical facts, such as mirror-images. If then it be equally capable of explaining the facts of normal mental life, it is on the whole to be slightly preferred to the Pure Ego theory. (2) If one of these facts be the appearance of a Centre to each total mental

state, the present theory is quite capable of dealing with it. For it can allow of a Central Event in every total state of mind, though it cannot allow that the Centre is a Pure Ego. (3) I think that one empirical fact on which supporters of the Pure Ego theory have relied is the fact of Personal Memory. Now this fact has two sides to it, viz., a causal and an epistemological side. (a) Causally considered, it is just a particular case of the fact that an event which has happened to a substance in the remote past may partially determine a present event in the same substance, although there has been nothing to show for it in the interval. This kind of causation is not peculiar to minds. And, granted that it involves the persistence of something which we call a "trace", I have tried to show in Chapter X that it is quite easy to conceive the persistence of a trace as the handing on of a certain structural or qualitative modification from one total event to the next total event in a successive series of specially interconnected total events. It does not involve of necessity the persistence of a certain substantial constituent. Hence the Pure Ego is not required to account for memory on its causal side. (b) Epistemologically the peculiarity of memory is that the memory-situation claims to give us non-inferential and intuitive knowledge of an event in our own past history. Naturally, memory differs from all non-mental mnemonic effects in the fact that it consists of a *cognitive* event; for the power to cognise is characteristic of minds. But this peculiarity by itself does not necessitate the assumption of a Pure Ego, unless cognition as such is impossible without a Pure Ego; and I do not think that this has been maintained. Thus, if Personal Memory requires a Pure Ego, it must do so, not because it is causally dependent on persistent traces, and not because it is a form of cognition, but because it claims to be a non-inferential and intuitive cognition of an event *in one's own past history*. Now there are

two distinct points to be considered here, viz. (i) that I claim to have *present* acquaintance with a *past* event; and (ii) that I claim to know that this past event was a state of *my* mind.

(i) I do not see that the hypothesis of a Pure Ego is relevant to the first claim. This claim is that there are cognitive situations which, as wholes, are present, and which contain as their objective constituents events which are past. Supposing this to be possible at all, I do not see that the hypothesis of a Pure Ego helps us to understand the possibility of such situations. If a situation can be present in spite of the fact that one of its constituents is past, it does not seem to matter whether the other constituent be a timeless Pure Ego or a present event. In fact it is slightly easier to understand the position on the latter hypothesis than on the former. For, on the latter hypothesis, the situation which is present contains a constituent which is present; whilst, on the former, it contains no constituent which is present.

(ii) If Personal Memory requires a Pure Ego this cannot then be because in Personal Memory I claim to have present acquaintance with a past event; it must be because I claim to recognise this past event as having been a state of *myself*. Now, on the Pure Ego theory to recognise that a past event was a state of myself is to recognise that its subjective constituent is numerically the same Pure Ego as that which is the subjective constituent of my present act of remembering. On other theories it consists in recognising that the past event stands in certain relations of qualitative resemblance, causal connexion, and identity or continuity of mental position, with my present act of remembering and with other intermediate states which I can remember. I cannot see that there is any more difficulty in supposing that we could recognise the one kind of fact than the other; and I cannot see that the power of recognising the second kind of fact requires the presence of a

numerically identical substantial constituent common to all our successive total states. Hence I do not think that the facts of memory require the hypothesis of a Pure Ego.

The upshot of the matter is that I can see no conclusive reasoning for rejecting or accepting the Pure Ego theory; and that I think that it is perfectly possible to state a theory of the unity of the mind which does not involve a Pure Ego. And, as the latter theory seems better adapted to deal with the facts of abnormal and supernormal psychology than the former, I am inclined slightly to prefer it.

CHAPTER XIV

Status and Prospects of Mind in Nature

It is now time to gather together the various threads of the earlier chapters, and to see whether we can come to any conclusions about the probable position and probable prospects of Mind in the Universe. It appears to me that *seventeen* different types of metaphysical theory are possible theoretically on the relation between Mind and Matter. I will first proceed to justify this very startling statement, and to enumerate, classify, and name the theories. Afterwards I shall consider the strong and weak points of each, and see whether we can come to any tentative decision between them.

The Seventeen Types of Theory. In order to understand the discussion that follows the reader should refer back to the section on Pluralism and Monism in Chapter I, where I defined the notion of "Differentiating Attributes" and distinguished them from other kinds of attribute. He should also refer to Chapter II, where I distinguished between those non-differentiating attributes which are "Emergent" and those which are not. I propose here to call non-differentiating attributes which actually apply to certain things in the world, but are not emergent, "Reducible Attributes". It will be necessary to introduce one further distinction which we have not so far made use of. Some attributes have application, *i.e.*, there are things in the Universe which have these attributes in some determinate form. Other attributes have no application. The characteristic of being a fire-breathing serpent, or