rejecting a proposition, and rejecting those analyses of it with which they happen to be most familiar.

Thus he would certainly attempt to meet the difficulties which we have just pointed out. There seem to be two ways in which he might do so. The first is a kind of *As-if* Theory. The second may be called the Expressive Theory. In the next chapter we will discuss the As-if Theory.

THE AS-IF THEORY

THE problem which the As-if Theory has to solve is this: even though it be nonsensical to ask whether there are unsensed sensibilia or not, statements containing a reference to them certainly are true or false. It is certainly sense to ask whether there is a table in the next room or not, even when no one is looking at it (and even if he is in fact looking, he will only see a part of it). And yet we are told, first, that there is no meaning in asking whether unsensed brown patches exist or not, and secondly, that the unperceived table consists entirely of unsensed brown patches and other such entities.

How does the As-if Theory solve the problem? We must first notice that there are two different sorts of As-if Theory, only one of which is relevant. The fundamental contention of the first, and most usual, form of it is that the complex proposition *x is as if p* may still be true even though *p* is false. Let us consider a forged coin. It is false that this piece of metal is a Roman coin. But still it may be true that it has the visible and tangible qualities which it *would* have, *if* it were a Roman coin. And it may be very valuable to know this; it may form an essential premiss for subsequent inferences. On the other hand, it is *not* as it would be if it were an ancient Athenian coin. We can distinguish between the two 'as-if' propositions *x is as if p* and *x is as if q*, and we can be certain that the one is true and the other false, even though *both p and q* are alike false. And this distinction may be of the utmost importance, despite the common falsity of both *p* and *q*. There might be a whole class of such as-if statements, some true and some false, although the clause following the 'as if' was *always* false. Now according to some philosophers, what we commonly call material-object statements are such a class.

A so-called material-object statement, they say, is more complex than it looks. It is an abbreviated way of saying that certain sense-impressions are *as if* such and such a material object existed. But in fact *no* material objects whatever exist. They are 'fictions' or 'mental constructs'; in other words, material-object phrases are descriptions which describe nothing. Nevertheless, it may be true that certain sense-impressions are *as if* a material object M_1 existed; and it may be false that they are as if a certain other material object M_2 existed. And the distinction between these two 'as if' propositions may be of the utmost importance, even though *neither* M_1 *nor* M_2 exists at all. It is very important to know that my present visual impressions are as if there were a black dog pursuing me, and are *not* as if there were a black cat. For supposing they are as if there were a black dog, painful consequences may be predicted; supposing they are as if there were a black cat, no painful consequences are likely to follow. And the distinction between the two situations still remains, and retains all its importance, both theoretical and practical, even if no black cats and no black dogs exist at all, provided that there are and will continue to be sense-impressions which are as if there were such entities. It is clear that the whole of Natural Science, as well as the whole of common life, could be understood on this 'as-if' basis, so long as our sense-experiences are sufficiently complex and detailed to enable us to distinguish between those sense-impressions which are as if one sort of material object existed, and those which are as if another sort of material object existed.

I think that this kind of As-if Theory has been held by many philosophers, though the grandiloquent language which some of them have used may conceal the fact from us, and perhaps from themselves. Many Idealistic philosophers have said that the commonly accepted statements of plain men or scientists are 'true at a certain level' but 'ultimately false', or that they are 'phenomenally true' but

'metaphysically false'. Again, they have said that the distinction we draw in ordinary life or in Science between true statements about the material world and false ones is 'valid as far as it goes', but that 'in the end' or 'in the last resort' they are all alike false. I think that such remarks are just rather mysterious ways of stating this form of the As-if Theory. And some of the philosophers who make them, though not all, would agree that material-object words and phrases *mean* groups of sensibilia, which are completely or wholly unsensed.

Now Hume, like these metaphysicians, professed to be able to prove that there are no unsensed sensibilia. If he had succeeded, he himself could have held the As-if Theory in this form; he could have said that a sentence such as 'this is a table' is an abbreviated way of saying 'my present sense-impressions are as if there was a table', though in reality there are no tables. But in fact he did not succeed. As we have seen, he ought to hold not that there are no unsensed sensibilia, but rather that it is meaningless to ask whether there are or not. So this form of the As-if Theory is not open to him. But perhaps he might hold it in a rather different form, which we must now consider.

According to this, the distinction between truth and falsity may apply to the complex statement *s is as if p* even though it does not apply to *p* by itself (whereas the other form of the theory said 'even though *p* by itself is always false'). Here *s* is the name of a certain sense-impression or set of sense-impressions, and *p* is a proposition asserting the existence of certain unsensed sensibilia. There would be meaning in asking whether *s is as if p* is true, and we could offer evidence for it or against it. But it would be meaningless to ask whether *p* by itself is true, i.e. whether there actually are such and such unsensed sensibilia or not, and no evidence we could offer would be relevant at all. The material-object sentences of ordinary life would really be abbreviated or telescoped ways of making statements of

this s *is as if p* type; in this case *p* will refer to a very complex *group* of sensibilia forming a complete three-dimensional whole and continuing through a long period of time. Thus when I say 'this is a brown table', I am really saying that my present sense-impressions have just the qualities and relations they would have, if they were members of a certain sort of complex and spatially-unified group of sensibilia which goes on continuously whether I am sensing or not: a group whose standard or nuclear members are brown, whereas the others diverge from brownness in various degrees and manners. It is meaningless to ask whether there actually is any such group, because it is meaningless to ask whether there are unsensed particulars. But it is not meaningless to ask whether my present sense-impressions are *as if* they were members of such a group. That question can be asked and answered, and in this case the answer is 'Yes'. In other cases the answer might be equally definitely 'No'.

The distinction between justifiable and unjustifiable postulations may now be explained as follows. If it is in fact the case that s is as if *p*, then anyone who senses s is justified in imagining the unsensed sensibilia referred to by *p*. If it is not the case that s is as if *p*, he is not justified in imagining those particular sensibilia; but he would be justified if he imagined certain others instead, for instance those referred to by *q*.

The guessing which goes on in the game of Charades provides us with a rough parallel.[1] Smith is behaving as if he were a Theban Elder in a Greek Chorus, and not as if he were a Chinese sage, which is the guess we made at first. For we notice that he lifts his staff and wails, which a Chinese sage would never do. Thus one guess is true and the other false. But of course we do not believe that in

[1] In this game, in case any of my readers should be unfamiliar with it, the participants divide themselves into actors and spectators. The spectators have to guess what parts the actors are playing.

real life he actually *is* a Theban Elder. And so long as the game is going on we do not disbelieve it either. Within the four corners of the game, questions about what he 'really is' or 'really isn't' simply do not arise. If anyone offers answers to them, he is no longer playing the game, and if we pay any attention to him, we are not playing it either. Within it, both the questions and the answers are meaningless. But of course outside the game such questions *can* be asked and answered, and in this important respect the parallel breaks down. The game of postulating unsensed sensibilia does not have anything outside it. It is a compulsory game, which goes on all the time. (Nature, as Hume says, 'has not left it to our choice', doubtless because 'she esteems it an affair of too great importance'.)[1] So we cannot strictly call it a game at all.

We must now clear up some difficulties in this curious As-if Theory. The first and most obvious is that in our ordinary everyday statements about the material world we never put in the 'as if'. We say quite flatly 'this *is* a piece of paper' or 'that *is* a raven'. And according to the analysis of material-object phrases which Hume throughout adopts, such a statement must be equivalent to 'there is a family of sensibilia having such and such a structure, and this sense-impression is a member of it'. Here we seem to be asserting the actual existence of a number of unsensed sensibilia (for of course most of the members of the family will be unsensed). But if it is meaningless to ask whether unsensed sensibilia exist, our assertion must accordingly be nonsensical; which it certainly is not.

I do not think this difficulty is a very serious one. It would be sufficient to reply that in order to assert the complex proposition 's is as if *p*' we have to *entertain* or think of the simpler proposition *p* which is a constituent of it. In order to believe that our present sense-impressions are as if there was a piece of paper, we do have to entertain the

[1] E. pp. 183–4; S.B. p. 187.

proposition that there is a piece of paper, though we do not have to believe it (no more than we have to believe that Smith is a Theban Elder). Moreover, we have to entertain this proposition *attentively*; and the entertaining of it has a most important effect on both our volitions and emotions, as we may see by considering the example of the black cat and the black dog above (cf. p. 142). For it is only by attending to it that we can predict future sense-impressions, our own or other people's, or infer the existence of past ones, or of present ones not sensed by ourselves. Thus it makes a great difference what the precise content of p is. Given that s is as if p_1 we have to predict one sort of future sense-impressions; while had it been that s is as if p_2 we should have had to make quite a different prediction. In view of this, and taking into account the vague, cursory, and unreflective character of everyday language, I do not think it is at all surprising that the 'as if' should be omitted in ordinary speech. For in the complex proposition s *is as if p, p* is the most important element. Granting that p is always false (as the first version of the theory says) or that it is meaningless to ask whether it is false or true (as this second version says), the fact remains that it guides almost all our thoughts and actions. We may also note that in the parallel case of the Charades the ordinary man would frequently leave out the 'as if', and would say simply 'he *is* a Theban Elder' or 'he *isn't* a Chinese sage'.

There is, however, another and more serious difficulty which arises directly out of our answer to this one. If it is meaningless to ask whether p (being unverifiable) is true, i.e. whether the unsensed sensibilia which it refers to actually exist, it is very curious that p should be a premiss, and an indispensable premiss, for the drawing of true conclusions; namely true predictions of future sense-impressions. Let F stand for 'family of sensibilia', e.g. for the family of sensibilia which if it existed would be collectively called a piece of paper. And let s as before

stand for 'sense-impression'; and when we want to speak of several different sense-impressions, let us call them s_1, s_2, &c. The statement we have to examine is s_1 *is as if there were F*. In order to get predictions of future sense-impressions, or to infer past ones, we shall need a general hypothetical proposition or rule, of the form *if there is F, then probably there will be s_2, s_3*, &c. But surely, it may be objected, we can only get to our conclusion 'there will probably be s_2, &c.' provided that the protasis 'there is F' is *true*. And according to the theory, it is not even sense to ask whether this protasis is true or false, so it certainly cannot be called true. Accordingly, it seems that no conclusion can be drawn at all, though it could be on the Realistic theory[1] which allows us to say that 'there is F' is in many cases very probable even if never certain. To put the difficulty still more simply: if my present sense-impression *were* a constituent of a certain family of sensibilia, then certain future sense-impressions *would* be predictable. But in fact, we are told, it is not sense to say either that it is a constituent of such a family or even that it is not, because neither statement can be verified; so in fact no prediction can be made.

But perhaps our rule has not been correctly formulated. Let us try again, and reformulate it as follows: if there are *some* sense-impressions which are as if they were constituents of F, then probably there will be *other* sense-impressions which will be as if they were constituents of F. Now here the protasis-clause can be true. It can be true that there are some sense-impressions which have the qualities and relations they would have if they were constituents of F. And the general rule (the long hypothetical proposition stated above) can also be true, even though statements asserting the existence of F are unverifiable, so that we must not ask whether *they* are true or not. Thus there is no paradox in our reaching the true conclusion that

[1] Cf. p. 134, above.

there are or will be other sense-impressions which will also be as if they were constituents of F.

The point may be put in another way, using the language of Descriptions. *Being as if it were a constituent of a family of sensibilia* is a description which does often apply to an actual sense-impression. This is an empirical fact, a fact of observation. And it is also an empirical fact that *a number* of sense-impressions occurring at different times are often found to be as if they were all constituents of *the same* family of sensibilia. We can then form an inductive generalization, and say: whenever there are some sense-impressions which are as if they were constituents of a certain family of sensibilia, there will probably be others which will also be as if they were constituents of that same family of sensibilia. The general form of this rule is very simple. It is: given that there is one particular satisfying a description ϕ, there are probably others satisfying that same description. What is not simple, but on the contrary very complex, is the description satisfied. However, I cannot see that this complexity is an objection, though it may be aesthetically distasteful.

It may, however, be thought that there is an absurdity, not merely a complexity, in this description. It would not matter if we said frankly that families of sensibilia do not exist, because their unsensed members do not. (That is what the first version of the As-if Theory did say.) There are plenty of descriptions which contain a reference to non-existent terms. *Pickwickian* and *fairy-like* are descriptions which contain such a reference, for presumably there are no fairies, and there never was a Mr. Pickwick. This does not prevent us from applying these descriptions to persons whom we actually meet with, nor from making true predictions by means of them. If you tell me that Robinson is a Pickwickian person, I can predict that he will talk in a fatuous but good-natured manner and will make bad jokes, although Mr. Pickwick, by reference to whom you describe

him, never actually existed. But what happens when the description contains a reference to something about whose existence it is *meaningless* to ask? How can such a description be applied to anything at all? Would it not be itself meaningless?

We must reply that the word 'meaningless' is here being used in a technical sense—not to say a hyper-technical one. When it is said that it is meaningless to ask whether families of sensibilia exist, this is only a way of saying that their existence is unverifiable by definition, since by definition they contain unsensed members. It is not meant that the phrase 'family of sensibilia' conveys nothing at all, or stands for no concept, like the phrase 'chivvle of woughs'. On the contrary, it stands for a complex concept which can be defined in terms of simpler ones; and we are perfectly familiar with these simpler ones, because we have been acquainted with numerous instances of them. We know what the phrase 'sensible quality' stands for, because we have met many instances of determinate sensible qualities. We are familiar with spatial relations. We know what it is for a series of sensibly-qualified particulars to go on continuously throughout a period of time, because we have often been acquainted with series of this sort which continued through a short period. Finally, we know what the word 'to sense' means, and therefore what 'unsensed' means. Consequently, we can conceive of a group which is partly or wholly composed of unsensed entities qualified by such qualities, which has a spatially continuous nucleus, and goes on uninterruptedly through time. Of course if it were *logically impossible* for an unsensed entity to be qualified in such ways—if, for instance, 'being red' and 'being unsensed' were a self-contradictory conjunction of predicates—then no such group could be conceived of. But according to Hume, at any rate, such a conjunction of predicates is not self-contradictory. Thus we do know what is *meant* by the phrase 'family of sensibilia'. What we do not know is

whether there are in fact any groups of entities denoted by that phrase. And since we cannot settle the question whether there are—not through *de facto* incapacity, but by definition—that question is according to him meaningless. (Or at least that is what he says when he is consistent in his Empiricism.) It does not, however, at all follow from this that the phrase 'family of sensibilia' is itself meaningless. If it were, we could not infer from the definition of the phrase that the existence of groups denoted by it is unverifiable. For it would not have a definition at all. Consequently, a complex description into which this phrase enters can perfectly well have a meaning, and there can perfectly well be entities which satisfy and are known to satisfy that complex description, even though it contains a concept such that one cannot properly ask whether any actual groups are instances of this concept.

But before we can be satisfied with this version of the As-if Theory there are several more difficulties to be cleared up, which indeed apply to the other version of the theory as well. The first concerns the phrase 'as if' itself. In what sense *are* sense-impressions as if there were such and such sensibilia? When we say they are, we must mean two things: (1) if such and such unsensed sensibilia existed, there would be (or probably would be) sense-impressions of such and such a sort; and (2) sense-impressions of that sort are in fact occurring. But how do we know what sort of sense-impressions there would be if these unsensed sensibilia did exist? How can we even conjecture what would be likely to happen? By definition, these sensibilia have not been inspected, being unsensed. So how can we tell that if the sensibilia were there, sense-impressions would have one sort of characteristics rather than another? And how can we say, then, that the sense-impressions which we actually get are as if *p* rather than as if *q* or *r* or something else? You say that these sense-impressions which you are

sensing are as if there were a group of sensibilia such as you call a table. But might you not equally well—or equally ill—maintain that they are as if there were a group of sensibilia such as you call a hippopotamus? Whatever phrase you put after the 'as if' you will never be found out. For *ex hypothesi* you will not be able to inspect the sensibilia themselves.

To answer this objection, we must go back to what was said earlier about Gap-indifference. Our sense-experience is full of gaps and interruptions. (This is what all the fuss is about; there would be no need of a theory of Perception otherwise.) But still there are some continuous stretches in it, though they are always short. And we fortunately find that the interrupted parts have a resemblance to the continuous ones, a fragmentary resemblance as we called it. This relation is wholly within the sphere of sense-impressions. At this stage there is no mention of unsensed entities of any sort. And thanks to this relation, the interruptions make no difference. The series of impressions goes on after the interruption exactly as it did on other occasions when no interruption occurred. The same applies to spatial gaps as to temporal ones. When a part of the view is cut off by some obstacle, e.g. when a fire-screen is put in front of the fire, the other parts continue exactly as before, with the same qualities and relations which they had when the screen had not yet come there. This characteristic, which is often found both in temporal series of sense-impressions and in spatial groups of them, is what we call Gap-indifference.

Now let us return to the meaning of 'as if'. We sense A . . . E, and we say that this gappy pair of impressions is *as if* BCD, which we do not sense, came between them. If BCD had come between them, we say, these two impressions would have had just the characteristics which they do in fact have. How do we know *what* characteristics they would have had, if BCD had been there? The answer is, we

remember what happened on past occasions when there was no gap. On those occasions BCD *were* there, they were actually sensed, and A and E were conjoined with them. That is what makes us say A . . . E are *as if* BCD were there now. And that is what makes us say that they are as if BCD *in particular* were there, rather than XYZ or something else. I sense a complex of impressions which I describe by saying 'Look! I see a tail sticking out from behind the sofa.' And I say that they are as if there were an unseen cat there. Why do I say that the view which I see is as if there were an unseen cat behind the sofa, rather than an unseen dog or an unseen sewing-machine? It is because I have often seen a cat in the past, tail and all, though I don't see this one; and this tail, which I do see, is very much like the ones which were attached to the seen cats. What I sense now resembles a part of a certain sort of *whole* which I have previously sensed. I therefore say that it is as if a whole of that sort now existed.

We can now see that there was something misleading in the objection stated above. The objection was that since unsensed sensibilia have never been inspected, we cannot possibly tell what it would be like if they were there. Of course they have never been inspected; otherwise they would not be *unsensed* entities, as by definition they are. But although they are by definition unsensed, they are also by definition *sensibilia*; that is, they are defined as entities possessing qualities and relations exemplified by particulars which *are* sensed. So though they have not themselves been inspected, by definition, it equally follows from the definition that other entities qualitatively similar to them have been inspected. Accordingly we *can* tell what it would be like if entities thus characterized had been there, for the very good reason that we remember what it *has* been like when entities thus characterized *have* been there. We remember what it was like when BCD were there in the past; we remember that A and E were there along with them,

A at the one end and E at the other. And so we can say that if BCD *were* there on this present occasion, A and E would be there, which in fact they are: in other words, that A and E are *as if* BCD came between them, though BCD are not in this case sensed.

We now turn to a second difficulty concerning the *s is as if p* formula. It may appear that this formula is altogether too elastic. There is a sense in which my present sense-impressions are as if a snowstorm were now raging in Tibet. They have just the characteristics which they would have if such an event were now happening; but equally they have just the characteristics which they would have if it were not. Again, they are just what they would be if a cow were now entering the Town Hall, since I cannot see the Town Hall from here, or hear what is going on there. And for the same reason they are what they would be if there were no cow whatever in the neighbourhood. We might try to avoid this objection by confining ourselves to cases in which sense-impressions are as if they were themselves *constituents* of a certain family of sensibilia. This would be a very drastic piece of self-denial, for it would prevent us from offering any analysis of statements about unobserved material objects, and we might well think the remedy worse than the disease. But even so, it would be ineffective. For we should still get into trouble over illusions and hallucinations. Let us consider the mirage again. Suppose that I am deceived by it. I sense a bright shimmery visual impression, and postulate a group of unsensed particulars such as compose a pool of water. Everyone admits that I am making a mistake. Not, however, because those sensibilia do not in fact exist; we are told it is in any case meaningless to ask whether they exist or not. (According to the other version of the As-if Theory, it is in any case certain that they do not exist.) Then what mistake am I making? It may be suggested that in actual fact the sense-

impression was not as if there were those sensibilia. But I reply that it certainly was; it did have just those qualities and relations which a sense-impression would have, if it were continued into unsensed sensibilia of the 'waterish' sort. As we say, it really did look exactly as if there were a pool of water there. Indeed, this is the whole trouble about illusions. It often happens that *s is as if p* when the postulation of *p* is unjustifiable, and the corresponding material-object sentence is false. If it were not so, illusory sense-impressions would never deceive anyone. And then they would not be illusory; they would merely stand in rather unusual relations to those which precede and follow them. Of course in such a situation it is also true that *s is as if q*. The sense-impression is also what it would be if it were a member of quite a different complex of sensibilia, composing a tract of hot sand. So to speak, it is ambivalent; it points both ways at once. But then it surely ought to follow that the postulation of *p* and the postulation of *q* are both equally justifiable; and both the material-object sentences 'this is a pool of water' and 'this is a tract of hot sand' ought to be true, whereas in fact they are mutually exclusive.

To clear up this difficulty, we must consider the meaning of *s is as if p* more carefully. The essential point is that there are different degrees of as-ifness. This is acknowledged in ordinary speech, where we find such phrases as 'to some extent as if', 'rather as if', 'very much as if', 'exactly as if'. The differences of degree arise in the following way. When we say that *x is as if p*, we are making two statements: (1) if *p* were the case, then *x* would have such and such characteristics, and (2) *x* in fact has at least some of them. But the characteristics which *x* would have if *p* were the case may well be numerous, and we may only know that it has one or two of them, not that it has them all. We then say that *x* is rather or to some extent as if *p*. If we later find that it has most of the required character-

istics, we shall then say that it is very much as if *p*. If we find that it has them all, we shall say that it is exactly as if *p*.

For instance, Smith behaves rather as if he were a member of some secret society. A curious emblem hangs on his watch-chain. Every other Friday he puts on a tie of a surprising apple-green hue, and disappears from his rooms for two or three hours after dark. We hear a voice on the stairs addressing him as 'Sergei Ivanovitch', which is certainly not his baptismal name. Then a day comes on which he disappears altogether. His rooms are searched, and a diary is found, written in code, giving an elaborate account of fortnightly nocturnal gatherings. Things are now exactly as if there were a secret society of which he is a member. But for all that (it will be said) he may not really be a member of any such body. It is still possible that the society does not exist at all; the whole affair may still be an elaborate hoax.—True enough. But in the instances which concern our inquiry no such comment can be made. The question about the secret society is one which might conceivably be settled by direct observation. It would be possible to follow Smith and see what he did. If the society does exist, it must be possible to observe its meetings and discover directly what goes on at them. But if the secret society corresponds to a set of unsensed sensibilia, and Smith's observed activities and belongings to actual sense-impressions, there will be no sense in asking whether the society really exists or not, and whether he really is or is not a member of it. The utmost you can ask for is that he should behave exactly as if he were a member. (According to the other form of the As-if Theory, we should have to say it is in any case certain that no such society exists or can exist, and therefore certain that he is not in fact a member of it, even when he behaves exactly as if he were.)

We have now described one way in which as-ifness may vary in degree. An entity *x* may have some, or many, or all of the characteristics which it would have if *p* were the

case. But where p is a proposition about a group and x is as if it were a member of such a group, another sort of variation is possible as well. When there are many x's and each of them is what it would be if p, the whole situation is *more* as if p than it was when there were only one or two. For example, there may be three other people in the town who behave in the same curious way as Smith does, and we hear that similar behaviour occasionally occurs elsewhere. Then the whole situation is more as if the secret society existed than it was when only Smith had been observed to behave in this way, and more as if it contained other members besides, whose behaviour has not been observed at all. It is the same with sense-impressions and sensibilia. Suppose we experience a number of sense-impressions which are all as if there were a certain group of sensibilia and as if they were members of it; then the whole situation is *more* as if there were those sensibilia than it is when only one single sense-impression has occurred, even though all the characteristics of that single sense-impression are just what they would be if such a group of sensibilia existed.

Thus the degree of as-ifness may vary in two different dimensions, as it were: in respect of *closeness* (x_2 may be more closely as if p than x_1 is) and in respect of *extensiveness* (there may be more x's or fewer). But there is an important difference between the two sorts of variation. The first has an upper limit; the second has not. My actual sense-impressions during a certain minute have *all* the qualities and relations which they would have if they were constituents of a family of sensibilia such as I call a table. When we consider them as they stand, we find that they could not be more as if this were so than they actually are. They are *exactly* as if there were a table of which they were constituents. But still there might have been a greater number of them. And however many there are, there could still always be more. I could always look at the table more

often than I do, and for longer periods. I could touch as well as see. Other people might look as well as I. Thus the as-if-ness might always be more extensive than it is. It would only reach its limit if there were an omnisentient observer, who looked at the table from all possible points of view at the same time and without any intermission. But in that case there would be no as-ifness at all. There would actually *be* a complete and continuous family of particulars. For the fragmentariness and interruptedness which are the characteristic factors of human sense-experience would have disappeared. There would be no supplementation of sense-impressions by the postulation of unsensed particulars to fill up their gaps, for there would be no gaps left to fill; and therefore there would be no question of justifying these postulations by finding facts of the *s is as if p* form. Actual sense-impressions would suffice by themselves to constitute those continuous and ordered groups which we human beings can only postulate by means of imaginative supplementation.[1]

But finally, it is not merely a question of numbers. It is not true that every sense-impression counts for one and none for more. Sense-impressions differ so to speak in weight or degree of decisiveness. In the first place, those which contain a great amount of internal detail count for more than those which contain little. One view from ten yards' distance counts for more than several from three hundred. One view in a good light is better than several through a mist. At three hundred yards my sense-impressions are to some extent as if there were a cyclist coming along the road towards me. But equally they are to some extent as if he were moving away from me. They are even to some extent as if there were no cyclist, but only a complicated pattern of lights and shadows on the road. At ten yards, supposing that they are at all as if there were a cyclist, they will be very much indeed as if there were one.

[1] Cf. pp. 80–1, above.

In any case, there will be no ambivalence about them. They will either be very much indeed as if p, or very much indeed as if not. In the same way, one view through a microscope or telescope is worth many with the naked eye.

For a similar reason, a few sense-impressions which are spatially synthesizable are better than a large number which are not so related. The spatially-synthesizable ones are more diagnostic; they enable us to choose between the postulation of p and the postulation of q. For the spatial structure of the entire family of sensibilia depends upon the shape of the nucleus of spatially-synthesizable members. It is the common limit from which the shapes of the other members diverge in various degrees and manners. If we get sense-impressions which are spatially-synthesizable, they are as if they were constituents of such a nucleus; and then we can tell at once what family of sensibilia they are as if they belonged to. But non-synthesizable impressions may be somewhat as if p and at the same time somewhat as if q, without being decisive one way or the other. A perspectified or otherwise distorted member of family F_1 may be very like some members of another family F_2, whose spatial structure as a whole is quite different; for instance, some foreshortened views of a circular piece of cardboard closely resemble certain views of an elliptical piece of cardboard (where the words 'circular' and 'elliptical' denote the shapes of the respective spatially-synthesizable nuclei). Conversely, a distorted member of family F_1 may be *un*like some members of F_3, although the spatially-synthesizable nuclei of the two families, and consequently their spatial structures as wholes, are extremely similar; for instance, some foreshortened views of the circular piece of cardboard are *un*like certain views of another circular piece of cardboard. In the same way, a cat seen through uneven glass may look very like a dog; and two very similar cats, one seen through uneven glass and the other not, may look very different indeed.

We may now return to the difficulty about illusion, bearing in mind these differences of degree between one 'as-if' and another. Let us consider the mirage again. It is true that the shimmery visual impressions *are* as if there were a pool of water some hundreds of yards away. But they are only *somewhat* as if this were so, not decisively. For they are also somewhat as if there were a patch of hot sand there, and not a pool of water. It is true that only past experience of mirages enables me to recognize this second 'as if'. But then it is equally past experience which enables me to recognize the first one—to recognize, as we say, that water does often look like that from a distance. I remember that shimmery impressions very like this one have often been followed by a succession of larger and larger impressions, less and less shimmery, more and more detailed but still bright and shining; until at last there was a set of them forming a spatially-synthesizable whole. All knowledge of *s is as if p* facts comes from past experience in any case; namely from actually finding, by actual sensation, that particulars of a certain sort are frequently accompanied or followed by other particulars of a certain sort. That is what enables us to say now that these present particulars are as if their usual accompaniments existed.

At first, then, my sense-impressions are ambivalent. They are somewhat as if p and at the same time somewhat as if q. But when I come nearer and obtain a greater number of sense-impressions, with a greater amount of internal detail, and spatially synthesizable with each other, the situation is altered. My sense-impressions now are very much indeed as if there were a tract of sand—enough to satisfy any reasonable man that the material-object sentence 'this is a tract of sand' is true—and they are not at all as if there were a pool of water. The new impressions, in view of their number and their weight, are far more as if there were a tract of sand than the old ones are as if there were a pool of water. In fact, the new ones are *decisively* as

if there were a tract of sand. They are so numerous and their weight is so great that anyone would be satisfied to say 'there *is* a tract of sand here, and there is not a pool of water'. The ambivalence we spoke of only occurs when s is somewhat as if p; for where this is so, it is also somewhat as if q, and perhaps as if other things too. But there is no ambivalence about these new sense-impressions. They justify the postulation of *one*, and only one, family of sensibilia; they do not favour several alternative postulations equally, as their predecessors did.

The fact that s can be as if p in different degrees is also important in another way. As we saw, the degree in which s is as if p depends partly on the extensiveness of s—on the number of relevant sense-impressions we have had. We further saw that there is no upper limit to this extensiveness. Likewise there is no upper limit of internal differentiation. Our sense-impressions might always be more detailed than they are. Now an important consequence follows from this, which affects both forms of the As-if Theory alike, and any other form of it there may be. According to the theory, we are constantly postulating unsensed particulars to supplement our fragmentary sense-impressions. These postulations are tested or 'checked' by sense-experience. According to the first form of the theory these postulations are always false, because there are in fact no unsensed particulars. According to the present form of it, we cannot ask whether they are true or false, because the question is meaningless. But according to either, we can and do ask whether they are justified or prohibited by actual sense-experience, whether they are or are not the right and proper postulations to make in the circumstances.

How much testing do we demand before a postulation is pronounced to be justified? We can now see that the most we can demand is, that it should be *sufficiently* tested or checked by actual sense-experience, where 'sufficiently'

means 'enough to satisfy any reasonable man'. (A reasonable man, be it noted, is not the same as a Formal Logician. Perhaps we should have said, 'any sensible man'.) This follows from what has been said about extensiveness and internal differentiation. There is no upper limit to the amount of checking which the postulation of p might conceivably get, since there is no limit to the number of sense-impressions which might be as if p, or to their degree of internal differentiation. Nevertheless, there is a finite amount of checking which is sufficient, and decisive. Given that amount, the postulation of p is decisively justified by actual sense-experience, or on the other hand decisively prohibited. We then say that the checking of our postulation by actual sense-impressions is complete, and that no further checking is required. But here the word 'complete' just means 'definitive' or 'completely decisive'. It does not entail that further checking is inconceivable, but merely that it is unnecessary or silly to demand any more; for instance, the sense-impressions which I have been having intermittently during the past half-hour are decisively as if they were constituents of a family of sensibilia such as I call an ink-bottle. This contention of the As-if Theory, that a finite set of sense-impressions may be sufficient and decisive, is obviously in agreement with common sense. Given these sufficient sense-impressions, the ordinary man would certainly say that it is a *fact* that there is an ink-bottle here, and that it is unreasonable or silly to demand further confirmation by additional observations; although it is perfectly conceivable that there might be further observations such as would confirm the existence of the ink-bottle if it *had* still been in doubt, and indeed we confidently expect there will be.

In other words, we ordinarily think ourselves justified in saying that some material-object statements are completely certain. We think that sense-experience, though fragmentary and intermittent, has been sufficient to certify

them absolutely. Now some philosophers of the Realistic school reject this common-sense opinion. Even though there have been enough *s is as if p* facts to satisfy any reasonable man that the postulation of *p* is justified, and however many sense-impressions you have had which have been exactly what they would be if there were this group of sensibilia, they say it is still theoretically possible that the corresponding material-object statement may be false; and even that all the material-object statements ever made are false. According to them, the plain man ought never to say 'it is a fact that there is an ink-bottle here'; he ought only to say at the most 'I have very strong evidence that there is an ink-bottle here'. Another way of putting their point is to say that any material-object statement, however well established, is still corrigible.

Whether these philosophers are right or wrong, it is clear that Hume, at any rate, does not agree with them. On this point, as on others, he sides with the Vulgar. He would hold, as the Vulgar do, that some material-object statements are completely certain. He could admit that they do not have the same kind of certainty as the statements of Arithmetic and Algebra, which state 'relations of ideas'; nor yet the same kind as the sensibly-evident statements which describe the sense-given qualities and relations of actual sense-impressions (or the analogous introspectibly-evident statements which describe feelings actually felt). But still, he would say, they do have their own kind of certainty, the certainty characteristic of 'knowledge of matters of fact'. Or rather, he not only admits that this is a special kind of certainty, quite different from the other two; he vigorously insists on the distinction. Indeed, the main object of all his epistemological adventures, both in the *Treatise* and the *Inquiry*, is precisely to give an account of this 'knowledge of matters of fact'; and the very thing which puzzles him about it is precisely the differences between this sort of certainty and the sorts of certainty we have in Arithmetic

and Algebra on the one hand, in the sphere of the sensibly and introspectibly evident on the other—differences which he thinks his predecessors overlooked. Thus he is far from holding, as these Realistic philosophers do, that no matter-of-fact proposition is certain. His whole point is that some of them *are* certain, and yet their certainty does not fall under either of the two main types of certainty hitherto admitted in Philosophy. And his aim is to exhibit clearly the peculiar type of certainty which he thinks they have, and to describe the process by which they are certified.

Now the As-if Theory which we have attributed to him does enable him to achieve this aim, though in a somewhat paradoxical way. At least, he is able to achieve it so far as the basic matters of fact are concerned, such as the fact that there is a table here. The process of certification, he can now say, is the testing or checking of imaginative postulations by actual sense-experience. When we say that some material-object statement is completely certain, that it states a matter of fact, we mean that the postulation of such and such a sort of group of sensibilia has been decisively justified; we are saying that actual sense-impressions are *decisively as if* the postulated sensibilia existed. It is clear that this situation *is* quite different from anything we meet with either in a mathematical proof, or in the sphere of the sensibly or introspectibly evident. The relation which we have called 'being decisively as if' is not at all like logical entailment. When *s* is decisively as if *p*, a man may still refuse to postulate the sensibilia denoted by *p* without being guilty of any contradiction; whereas he *would* be guilty of a contradiction if he accepted the premises of a mathematical demonstration, but rejected the conclusion which they entail. His refusal to postulate *p* is only unreasonable or silly, or perhaps insane; not illogical or inconsistent. Again, although it is of course sensibly evident that the impressions denoted by *s* have the qualities and sense-given relations they do have, it is not sensibly evident

that there are the supplementary particulars denoted by p. It cannot be, because they are by definition unsensed. There is also a second, and even more striking, difference between this certainty and both the other two. When s is decisively as if p, we cannot say that p by itself is *true*. According to the present form of the As-if Theory, it is not even sense to ask whether p is true or false; according to the other, it is actually certain that p is false. What is true is only the complex proposition s *is decisively as if p*. Thirdly and lastly, 'being decisively as if' is the uppermost member of a series of degrees. It is possible for the 'as if' to be *nearly* decisive but not quite. But one proposition cannot be *nearly* entailed by another; and a proposition is either sensibly evident or else not sensibly evident at all.

This brings us to the third important obscurity in the theory. It concerns what we should commonly call statements about *completely unobserved* material objects. Let us first consider those for which we have got some sense-given evidence. We find that they can easily be accommodated within the theory, once we admit that there are different degrees of as-ifness. For instance, we say that this dandelion has a root which no one has ever seen or touched. Then what do we mean by saying that the root is there? The theory must find some actual sense-impressions which are as if that particular group of completely unsensed particulars existed. What sense-impressions can they be? Obviously they are those which we sense now when we look at the flower. We remember that in certain other instances where dandelion flowers have been observed, roots have been observed as well. We conclude by analogy that there is a root in this case too, though we have not observed it. Let us suppose that in each case our observations are as complete as we can make them. Then the situation is this: On previous occasions *two* complex sets of gap-indifferent sense-impressions were sensed, which

were decisively as if there were *two* complete families of sensibilia existing together—flower and root. We now find *one* complex set of gap-indifferent sense-impressions, which are decisively as if *one* complete family of sensibilia existed —a flower. But they are also very much as if there were a second family of sensibilia as well—a root. For they are just like those impressions which have frequently accompanied root-impressions in the past.

The position then is that certain past conjunctions of sense-impressions have been decisively as if there were certain conjoined families of sensibilia. Our present sense-impressions are decisively as if there was one such family of sensibilia now; and they are very much, though not decisively, as if there was another family of sensibilia conjoined with it. This analysis fits all the instances in which we argue from the observation of one material object or process to the unobserved existence of another material object or process, whether in the present or in the past: for example, from the observed motions of a planet to the existence and motions of another which is not observed, or from the observed scratches on the rocks of a valley to the unobserved existence of a glacier in the remote past. And thus our present sense-impressions are not merely as if there were a family of sensible particulars in which they themselves would be included as members, but are also as if there were *other* families of sensible particulars of which they would not themselves be members.

We may restate this in rather a different way as follows: Given the general hypothesis of the existence of unsensed sensibilia, and given the Principle of Gap-indifference to guide us in our detailed postulations of them, we find that the sensibilia which our sense-impressions lead us to imagine usually go together in spatially-synthesizable groups or families, and we refer to such groups by means of material-object words and phrases. We further find that these groups in turn display certain regularities of

succession and conjunction, which we formulate in inductive generalizations. Thus, given the general hypothesis that unsensed sensibilia exist, and working all along inside that hypothesis, we can discover rules for inferring from the existence of one group of sensibilia to the existence of another group. And these are what we are using when we say that our present sense-impressions are as if a certain group of sensible particulars existed, no members of which are actually sensed by anyone.

In the instances so far considered we do have sense-given evidence for the existence of our unobserved material object. But what happens when we have none? There may, for instance, be a lump of basalt 2,000 miles west of this spot, at the bottom of the Atlantic Ocean. No one has observed it; not only so, no one has any evidence of its existence. But if I say that it is there, my statement certainly has meaning, and is true or false, though I have no reason whatever for making it, and no one else has any. Let us suppose that the statement happens to be true, as admittedly it may be. Ought there not to be some actual sense-impressions which are as if a group of sensibilia of that particular sort existed? For, according to the theory, every material-object statement is to be regarded as an abbreviation for a statement of the *s is as if p* form, where *s* is a set of sense-impressions and *p* a statement about unsensed sensibilia. But in this case, it seems, there cannot be any *s*. *Ex hypothesi* there is no sense-given evidence at all for the assertion which we have made. There are *no* sense-impressions which are in any degree as if that particular group of sensibilia existed. Thus the theory seems driven to hold, most unplausibly, that statements of this sort are illegitimate. It will apparently have to say that it is impossible that there should be parts of the material world of which human beings are completely ignorant: or rather, that statements asserting their existence are without meaning. For how can they be treated as abbreviations for

statements of the *s is as if p* form? And this conclusion is obviously absurd.

But why is it absurd? What makes us so certain that there are in fact parts of the material world of which we are completely ignorant? It is not logically necessary that there should be. There is certainly no contradiction in maintaining that every object in the material world has *either* been observed at some time by someone, *or* is such that its existence could be inferred from other objects which have been. The infinity of space and time, whatever view we may hold about it, is here irrelevant. For even though they are infinite, the number of objects in them may still be finite. And there is no contradiction in supposing that the number is quite small, so small that every object has either been observed or could be inferred from those that have been.

Moreover, the statement that there are parts of the material world of which we are completely ignorant is itself a queer one. To assert that such parts of the world exist, although we have no evidence at all about their character, would be paradoxical enough. But we are supposed to be completely ignorant even of their existence. How then can we at the same time assert that they do exist? This looks like a flat contradiction. Of course they might *in fact* exist although everyone was completely ignorant of their existence. But the point is that we *assert* their existence, while at the same time asserting that we are completely ignorant of it. What do we really mean by these assertions, and what reason have we for making them? Clearly we do have a reason. If we had none at all, the As-if Theorist need not be in a difficulty. He could then consistently dismiss the statement that material objects exist of which we are completely ignorant. He could say that it is a pseudo-statement, which propounds a completely unverifiable hypothesis, and is accordingly meaningless.

On reflection, we find that our reason is an *empirical* one. A great many material objects have been discovered in the

past whose very existence was unsuspected beforehand. And not only was it in fact unsuspected; there was not the slightest antecedent evidence for it. Before the Antarctic Continent was discovered, no one had the slightest evidence for its existence. Until Galileo invented his telescope, no one had the slightest evidence for the existence of Saturn's rings. Since such discoveries are constantly being made, we infer by analogy that there are probably a vast number of other material objects which exist, although we have at present no evidence for their existence, and may never have any.

However, this does not get us out of the apparent contradiction. For now we are saying that we *have* got evidence for their existence, sensible evidence derived from actual though unexpected sense-impressions. We are saying that there *have* been actual sense-impressions which were as if such groups of unsensed sensibilia existed; yet we are also saying that there has not been, is not, and perhaps never will be, any sensible evidence for the existence of those particular groups of sensibilia. But the solution of the paradox should now be obvious. We must distinguish between evidence for a very general hypothesis and evidence for more specific ones. We have evidence for the *general* hypothesis that there are many material objects such that we have no evidence in favour of any *specific* hypothesis about them, and perhaps never shall have any. Does this amount to saying after all that we have evidence as to their existence, but none as to their character? No. For, on the one hand, we obviously do have *some* evidence as to their character: we have evidence that they possess all the defining characters of material objects, i.e. (on the present Humian theory) that they are families of unsensed sensibilia. On the other hand, our evidence as to their existence is general and not specific. We have no evidence to show how many of them there are. We only have evidence to show that there is *some* large number of them.

Thus the general statement that there are material objects of which we are completely ignorant can certainly be made to fit the *s is as if p* formula. There *are* actual sense-impressions which are as if there were many such objects. Only this 'complete ignorance' really means complete absence of evidence about their number, and about all characters of them which are more specific than the defining characters of material-objectness as such. For instance, there are no sense-impressions which are as if there were exactly six hundred million such objects, or as if five per cent. of them were purple.

This conclusion may be stated in another way as follows. Our sense-impressions are as if there were a vast and complicated world of sensible particulars, having a determinate structure. But they are also as if the vast majority of these particulars were not actually sensed by anyone; and they are even as if very many of these particulars were such that we have no evidence as to their specific qualities and relations. Thus according to the As-if Theory the statement that there are parts of the material world which no one has ever observed is very far from being meaningless. It is not only a meaningful statement, it is a true one. For it is an abbreviated way of stating a perfectly genuine fact of the *s is as if p* type.

Nevertheless, the difficulty is not altogether overcome. We are allowed to say that there are many material objects and processes which no one has ever observed. But so far as this argument goes, we are only allowed to make the *general* statement that there are many unobserved material objects of some sort or other. Unfortunately, however, we can and do make *specific* statements about them; or if we are too cautious to make them, we nevertheless understand them perfectly well. At the time when they are made, no one knows whether they are true or false; it may even be that there is not the slightest evidence one way or the other.

But still, we think, they are *in fact* either true or false, even though no one ever finds out which they are. Suppose someone asserted 300 years ago that there are mountains at the South Pole. There were in fact mountains at the South Pole at that date, though no one had any evidence of it at the time. Thus the statement was in fact true. But can we say that it was equivalent to any statement of the *s is as if p* type? Certainly no sense-impressions at the time were *sufficiently* as if sensibilia of that description existed. None of them were even *much* as if these sensibilia existed. It is true that a seventeenth-century inhabitant of England could say, 'my sense-impressions have just the character-istics they would have if there were mountains at the South Pole'. But this is a very weak 'as if' indeed. Whether there were mountains at the South Pole, or frozen sea, or Hesperi-dean Gardens—in fact, whatever there was, so long as there was something or other—the view which he saw from his front door would have been just the same. His sense-impressions 'permitted' him to make the postulation he did, in that they did not absolutely prohibit it. That is the most that we can say.

Now on the Realistic theory, which says that unsensed sensibilia are actually existing entities, no difficulty of course arises. According to it, the statement 'there are mountains at the South Pole' did happen to correspond to the real state of affairs, though no one at the time had any good reason for thinking it did; while other statements, such as 'there is frozen sea there' or 'there are Hesperidean Gardens there', did not. Since unsensed sensibilia are on that view actually existing entities, there is something for the statements to correspond with or discord with, as the case may be. But if it is not sense to say that unsensed sensibilia are actually existing entities (as the present theory holds it is not), how can it be sense to say that this one statement was in fact true and the others false?

Are we to maintain, then, that this seventeenth-century

statement about mountains at the South Pole was neither true nor false; whereas an exactly similar statement made to-day, now that mountains have actually been discovered there, is true? Are we to say that whenever an hypothesis is put forward for which there is as yet no evidence, it is neither true nor false, though it will *become* one or the other if ever it is tested? This would be violently paradoxical. It is worth while noticing that even if we adopt the other and more popular form of the As-if Theory, a similar paradox arises. For we still have to hold, though for a different reason, that any material-object statement which is true must be reducible to the *s is sufficiently as if p* form; on the ground that if it categorically asserted the existence of unsensed sensibilia it would be false in any case, whatever its detailed content might be. And we still find that this statement about mountains at the South Pole, though admittedly true, was not at the time reducible to this form, whereas a similar statement made to-day *is* reducible to it.

I am not sure that this difficulty can be completely eliminated by any non-Realistic theory. The fact of human ignorance is one of the strongest cards in the Realist's hands. However, the paradox can be at any rate mitigated. But before showing how this is to be done, we must make it quite clear that the difficulty only concerns statements which are relatively specific or determinate, like the seventeenth-century Englishman's statement about the South Pole, or the statement referred to earlier about the block of basalt at the bottom of the Atlantic 2,000 miles west of this spot. The *general* statement that there are unobserved material objects of some sort or other can perfectly well be accom-modated within either form of the As-if Theory, as we have seen. For sense-impressions *are* as if many unobserved material objects of some sort or other existed.

One thing at any rate is clear about these troublesomely specific statements. Since they concern unsensed sensibilia, they must formulate acts of imaginative postulation. Now

this postulation of unsensed sensibilia, as we have seen, is not something completely free and unregulated. If it were, it would be what we call 'mere' imagination, and would not concern the Theory of Perception, however important it might be in Aesthetics. The postulation which concerns us is something which can be done either well or ill, properly or improperly, even though (on the present theory) not truly or falsely. The imagination of such and such unsensed sensibilia is the fitting or suitable response to make when such and such sense-impressions are presented, whereas the postulation of others would be unfitting; much as 'Bo!' is said to be the proper response to make to a goose, and 'Puss! Puss!' is an improper one, although neither of these utterances is true, and equally neither is false. Thus although nothing can stop us from imagining whatever unsensed sensibilia we please, the fact remains that our imaginative postulations are subject to the control of actual sense-experience. As we put it before, they can be tested or checked by the occurrence of sense-impressions which are as if the postulated entities existed or as if they did not.

Now this is the position with the seventeenth-century Englishman's postulation of mountains at the South Pole. His act of postulation was subject to the control of sense-experience, even though the control was not actually applied. When we say that his statement was in fact true, that there were in fact mountains there, though neither he nor anyone else at the time had any evidence of it, we shall have to mean the following: his statement formulated an act of postulation which *would* have been decisively justified, *if* the test of actual sense-experience had been applied to it. When we use the words 'in fact', the fact we are referring to is not a simple fact of the *s is as if p* form, as it is when we are speaking of facts about actually observed objects, or about unobserved ones for which there is actual sense-given evidence. It is more complex. It is of the form: *if p had been checked by actual sense-impressions, s would have*

been decisively as if p. And since a proposition of the *s is as if p* form does enter into this fact, the As-if Theory may claim to have solved the difficulty. It can now allow that some specific statements about completely unobserved objects are true, and others false, even though no one has any sense-given evidence for or against them. For, it can say, the facts which make them true or false do involve sense-impressions and do involve an as-if, even though they are more complex than the straightforward *s is as if p* facts which make statements about actually observed objects true. A similar analysis will apply to questions. There is no difficulty about the *general* question, 'Are there completely unobserved material objects?' It is equivalent to 'Are actual sense-impressions as if there were groups of sensibilia of such a sort, that no sense-impressions are as if these sensibilia had one determinate structure rather than another?' (A complicated question certainly, but the answer is Yes.) Difficulty only arises when our question about an unobserved object is specific; or rather, when it is too specific to be answered on the existing sense-given evidence, as when we ask whether the bee-population of Oxfordshire is over 10,000. The As-if Theory will have to say that such questions are of the form *would s be as if p, if p were checked by actual sense-experience?*

Next, we must notice that any sentence, or question, of this sort not merely formulates a piece of imaginative postulation which may be checked by actual sense-experience, but also gives instructions, as it were, telling us how the checking is to be carried out. It does so by referring to certain relations between the postulated group of sensibilia and some other group of sensibilia which we are *already* justified in postulating. In our example about the Antarctic mountains, the instructions are conveyed by the words 'at the South Pole', which are equivalent to 'so many thousands of miles south of the objects at present observed by the speaker'. At the time when the statement is first made,

the speaker's sense-impressions are as if certain families of sensibilia existed, say green fields and houses. His statement gives instructions for obtaining new sense-impressions, which are to be as if there were certain additional families of sensibilia so many thousands of miles to the south of these first ones, the ones which his present sense-impressions are as if there were. And he maintains—truly, as it happens —that if these new sense-impressions occurred, they would be as if the additional families of sensibilia were of a certain specific sort, namely the sort we call mountains. One would carry out the instructions by experiencing a series of impressions which would be as if one were moving progressively southwards. First, there would have to be some which are as if there were groups of sensibilia a little to the south of the fields and houses. Then there would have to be some which are as if there were more groups of sensibilia still to the south of those, and so on, till at last there are some which are as if there were a group of sensibilia at the requisite distance south of the original ones; and they will either be as if this final group of sensibilia were of the specific sort conveyed by the word 'mountain', or they will not. If they *are* as if there were sensibilia of this specific sort, the original postulation of mountain-sensibilia is then —but, not till then—proper or justified; it is the fitting response to make to the sense-impressions which occur when the conditions of the test are fulfilled.

So far it appears that the instructions for checking the postulation are words referring to *spatial* relations; for instance, such words as 'in the Antarctic', or '2,000 miles west of this spot', or 'behind that door'. The spatial relations are relations in what is called 'physical' or 'public' space. That is, they are relations not between actual sense-impressions but within the postulated world of sensibilia: between the sensibilia postulated in our new postulation, which is as yet unchecked, and other sensibilia which we are already justified in postulating—sensibilia which actual

sense-impressions are as if there were. But really there is a reference to *temporal* relations as well, though it is not always made explicit. When someone says there are mountains at the South Pole, he is understood to be postulating groups of sensibilia which have continued in being for many years up to the time of speaking, and are going to continue for many years more. And if I say that there is a black panther outside the door, I conceive of the sensibilia as existing at about the time when I make my statement. But of course we often postulate sensibilia which we conceive of as existing not now, at the time when the act of postulation itself occurs, but at some other time (past or future), perhaps a very remote one. And it may well be that no actual sense-impressions, either present or past, are as if sensibilia of the required sort had formerly existed, or were going to exist. Nevertheless, the material-object sentences which formulate these postulations may happen to be true. As we ordinarily put it, the material objects mentioned in them may in fact have existed (or may in fact be going to exist, if the statement concerns the future) even though there is no evidence to show that this is so.

Here we apply the same principle as before. Let us assume that our sentence is in fact a true statement about some past or some future state of the material world. Let us assume further that no sense-impressions have occurred which actually justify our postulation, i.e. which are as if the postulated sensibilia existed, and that none are going to occur hereafter. Then we certainly cannot say that s is as if p (nor of course that s is as if not-p). For the postulation is never actually checked. Nevertheless, it happens to be the case that if the postulation *had* been checked, sense-impressions would have been as if the postulated sensibilia existed. And that is why we are allowed to say, elliptically, that the material object referred to by p did in fact exist (or will in fact exist, as the case may be), though no one has any evidence of it and no one ever will have any.

To summarize: the principle which the As-if Theory adopts for analysing specific but unevidenced statements about unobserved material objects is as follows: First, there must be certain actual sense-impressions which are decisively as if a certain group of sensibilia Σ existed. These sense-impressions are our starting-point or point of reference, our ποῦ στῶ as it were; and until they are indicated, we cannot attach a definite meaning to the statement (so Σ stands for what common sense would call an actually observed object, this thing here and now). We then say: if there had been other sense-impressions, which were decisively as if some *other* group of sensibilia existed, standing in such and such spatial and temporal relations to Σ, they would have been as if this other group had the determinate character C. When the statement concerns the future, we substitute 'if there were going to be' for 'if there had been', and so on.

This analysis will apply even to statements which refer to material objects so remote in space or time that sentient beings 'could not', as we say, have observed them: for instance, to statements about very early or very late stages in the history of the solar system. For the 'could not' here does not stand for a logical impossibility, as it does when we say that $7+2$ could not equal 10. It stands for a merely *de facto* (or as it is sometimes called, merely causal) impossibility, as it does when we say that it is impossible for a human being to jump a quarter of a mile; where the proposition 'Smith has jumped a quarter of a mile' contains no internal contradiction whatever, but is merely rendered very improbable by well-established inductive generalizations. It is perfectly conceivable that there might have been sense-impressions earlier than any which have in fact occurred. It is perfectly conceivable that there might have been going to be sense-impressions later than any which will in fact occur; or that there might have been some existing from very remote places, places so remote that they are

never in fact occupied by any sentient being.[1] There is no contradiction in these suppositions. The conditional clause 'if there had been, &c.' contains no absurdity, though it happens to be unfulfilled. And *if* there had been, certain postulations would have been justified, and certain others prohibited, which have never in fact been submitted to the control of sense-experience and never will be.

By means of this rather complicated analysis, it is possible for the As-if Theorist to allow that an indefinite number of *specific* statements about totally unobserved material objects are in fact true—and an indefinite number of others in fact false—though no actual sense-impressions are, or have been, or will be as if the postulated sensibilia existed. But he can only allow this at the cost of introducing a new sort of 'if' in addition to the 'as if' with which he began. The new one is 'if the postulation were to be submitted to the control of actual sense-experience'. By introducing it, he has obviously come closer to the theory which is now ordinarily called Phenomenalism. For the Phenomenalist, too, would analyse statements of this sort into statements about possible though not actual sense-impressions. When someone in the seventeenth century maintained that there were mountains at the South Pole, Phenomenalists say he meant that *if* there had been certain sense-impressions, there *would* also have been certain others; and this hypothetical statement, they say, was in fact true, though the condition stated in the if-clause was unfulfilled. But they go farther. They hold that hypothetical statements of this sort enter into the analysis of any material-object sentence whatever, whether it is general or specific, whether it is made with evidence or without, and whether it concerns an observed object or an unobserved one. For even what we call an observed object is not observed in all its parts

[1] On the sense in which sense-impressions exist 'from a place', cf. p. 107 above.

and throughout its whole history (how often have I seen the under side of my own writing-table?). In fact, this is the Phenomenalist's way of dealing with the defectiveness of actual sense-experience—with that fragmentariness and interruptedness which, as we saw, is the starting-point of Hume's theory. The Phenomenalist fills up the gaps in actual sense-experience by introducing hypothetical propositions about possible sense-experiences. Now at first sight the two theories, the Humian and the Phenomenalistic, are very different. Certainly they begin very differently. But when we develop Hume's theory in detail to the stage which has now been reached, it may appear that the two theories converge, and that if they differ at all, the difference is trifling and rather to Hume's disadvantage. In fact, it may be thought that he ought to give up the distinctive features of his own theory, and analyse *all* material-object sentences in a purely Phenomenalistic way.

In order to clear up this point we must consider exactly what the initial difference between the two theories is. The briefest and most obvious way of describing it is this: Hume says that we supplement actual sense-impressions with *unsensed sensibilia*, whereas the Phenomenalist says we supplement them with *hypothetical sense-impressions*. But this does not make the difference between the two theories really clear. For one thing, the phrase 'hypothetical sense-impressions' may easily look as if it stood for actual particulars which could be sensed but happen not to be; and these would be just the same as what we have called unsensed sensibilia. Certainly many people have in fact confused hypothetical sense-impressions with unsensed sensibilia. But when Hume says that this table which I now see consists largely of unsensed sensibilia, he means that these sensibilia are imagined to be there at this moment; it is not merely that they *would* have existed had circumstances been different. On the other hand, when the Phenomenalist says that it consists largely of hypothetical

sense-impressions, he *is* merely saying that they would have existed had circumstances been different. The phrase 'hypothetical sense-impression', in fact, is just an abbreviation for a hypothetical *statement*, of the form: *if* so and so were the case, such and such a sort of sense-impression *would* exist. Another source of confusion is that the word 'hypothetical' is sometimes used to mean 'assumed' or 'postulated'. Thus the ether of nineteenth-century Physics has been called a hypothetical luminiferous medium. But if the word is used in this way, there is again no difference between a hypothetical sense-impression which is not actually sensed, and a postulated unsensed sensibile. It does not matter much whether you call the postulated entity a sense-impression or a sensibile, provided you admit that it is not actually sensed.

We must insist, however, that the Phenomenalist is not using the word 'hypothetical' in this way. He is using it as a convenient abbreviation of an if-then proposition. Perhaps his contention will be clearer if translated into the Formal Mode of Speech. He then turns out to be saying that any sentence about an unobserved material object (or the unobserved parts of an observed one) is equivalent to a set of if-then sentences, of the form '*if* so and so, there *would be* sense-impressions of such and such a sort'— sense-impressions which actually there are not. Hume, on the other hand, holds that we conceive unsensed sensibilia as actually existing entities, though he also holds that we cannot ask whether in doing so we are conceiving truly or falsely. It is true of course that the As-if Theory, supposing that this is the right interpretation of him, does introduce a hypothetical statement of its own, even at the very beginning. But it is a very different hypothetical statement from those which occur in Phenomenalism. For in *s is as if p*, *p* is really the protasis, though it is written at the end. The meaning of the formula is: if there were these sensibilia, there would be sense-impressions of a certain sort, *and*

there actually are sense-impressions of this sort (whereas the sense-impressions which the Phenomenalist is talking of would have existed had circumstances been different, but actually do not exist). That is the whole point of the 'as-if'.

Now Phenomenalists claim, as against Hume, that there is no need to introduce unsensed sensibilia at all; they claim that a complete analysis of material-object sentences can be given without ever mentioning such questionable entities. And they further hold that there is a strong positive reason for *not* introducing them; namely, the ordinary Empiricist reason mentioned above, that the existence of unsensed sensibilia is by definition unverifiable. Whereas, they point out, their own hypothetical propositions are always *capable* of being verified, whether anyone in fact verifies them or not. The proposition 'there was a cat in the larder an hour ago' may not actually have been verified by me or anybody else. But the fact remains that *if* anyone had gone into the larder an hour ago, he would have verified the proposition (or discovered its falsity as the case may be), even though nobody did go.

Of course Hume, like any other radical Empiricist, is bound to admit that the existence of unsensed sensibilia is unverifiable. But he may still claim that there is an important advantage in introducing them. He may further argue, *ad homines*, that many Phenomenalists—perhaps all —do in effect refer to unsensed sensibilia themselves in stating their own theory, though without openly admitting that they do. Phenomenalism is a good servant, very useful in controversies with tender-minded opponents, but it is a harsh master. To stick to it through thick and thin requires a perseverance which is almost superhuman, as we shall see presently.

There are indeed *two* advantages in introducing unsensed sensibilia. The first is that we do actually find ourselves thinking of them—or as Hume says, imagining them—

when we make or understand a material-object statement. They are at least part of what is meant by the statement, in the sense that they are part of what is before the mind of anyone who utters or understands material-object words and phrases; unless, indeed, we are merely operating with 'uncashed symbols', in which case nothing is before our minds except the words themselves, strung together in certain familiar-feeling combinations. But if we stop and consider what the words stand for, we do find ourselves supplementing our actual sense-impressions by the postulation of unsensed particulars, very much as Hume describes. Empiricist philosophers may think this procedure regrettable. Why should anyone bother his head with unverifiable entities? But there it is. We find ourselves doing it. As Hume would say, it is human nature to do it. On the other hand, we do *not* normally think of the multitude of hypothetical propositions into which Phenomenalists say the statement ought to be analysed. We think of these unsensed particulars not as somethings which *would* exist if such and such conditions were realized, but as somethings which do exist now; even though some philosopher tells us that it is meaningless to ask whether they exist or not.

Thus, suppose someone says that the walls of the bathroom are blue. If we understand his sentence, we find ourselves conceiving of a complex group of blue sensibilia. And we conceive of them as existing *now*, as *co*existent with the impressions which we are actually sensing at the moment, not merely as being liable to exist at some time when or if circumstances are different. (We also think of them as related in space to the group of sensibilia which our present sense-impressions are as if they were constituents of.) Suppose a Phenomenalist now appears, and begins to analyse the sentence for us. He says, 'if anyone were in the bathroom he would be sensing blue sense-impressions'. We accept this Phenomenalistic statement, of course. But we regard it as a *new* statement; not merely as the verbal

formulation of something which we were already thinking of beforehand. On the contrary, we take it to be a *consequence* of what was already before our minds. Our line of thought is this: given that the blue sensibilia are there at this moment, each existing from its appropriate place, then of course it follows that a blue sense-impression *would* be sensed by anyone who occupied one of those places. We understand and accept the Phenomenalistic if-propositions ('if anyone were there, he would sense such and such') because we read them off, so to speak, from the unsensed sensibilia which we have already postulated. And it seems very likely that the Phenomenalist himself has read them off in the same way. Just because he is already thinking of a group of unsensed particulars existing from various places, he is able to say what *would* be sensed by anyone who was at one of those places: he is also able to say what temporal order the sense-impressions would occur in, if anyone moved from one of these places to another; what he would miss if he shut his eyes at such and such a point; what sort of duplicated view he would get if he suddenly began to see double at such and such another point, and so on. All these questions can be answered at once if we already have the group of sensibilia before our minds. But if we have not, it is difficult to see how we shall manage to answer them at all.

The complete order of events, then, seems to be as follows: (1) the sensing of actual sense-impressions, (2) the supplementing of these by the postulation of unsensed particulars, (3) the drawing of consequences *ad libitum* as to what other sense-impressions would occur, or would have occurred, if certain conditions were or had been fulfilled. Thus the conceiving of unsensed sensibilia is an intermediate link between the few impressions which we do actually sense, and the many possibilities of sensation which we are able to infer.

It seems, then, that Hume's account of the matter has one

great advantage over pure Phenomenalism. It comes much nearer to the way in which we actually think about the material world. The Phenomenalist, by excluding all mention of unsensed sensibilia from his analysis, leaves out an important part of what is before the mind of anyone who makes or understands a material-object statement. Nor is this a matter of mere Psychology, irrelevant to the philosophical analysis of the statements. No doubt the means by which the unsensed sensibilia are conceived of vary from one person to another. Probably some people conceive of them by means of representative imagery: they conceive of an unsensed colour-sensibile by means of a visual image, of an unheard sound by means of an auditory image, and so on. (We may suppose that this is what animals do if they can entertain material-object propositions at all.) Others probably conceive of them by means of words, and others again by purely symbolic images which have no resemblance to the entities they symbolize. Moreover, some people conceive of them attentively and in detail, others in an inattentive and cursory way. Certainly these facts are merely matters of Psychology, and do not concern the philosophical analysis. But if everyone who understands a material-object statement at all turns out to be conceiving of unsensed sensibilia, if these are what the words immediately convey to everyone's mind, then surely this *is* relevant to the philosophical analysis of such statements; all the more so, if Phenomenalists themselves can only arrive at the analysis which *they* offer by first conceiving of those unsensed sensibilia, as everyone else does.

Hume's theory has a second advantage over Phenomenalism, the advantage of simplicity. The Phenomenalistic analysis of any material-object statement is immensely complicated. It contains an enormous multitude of different 'ifs': if someone were at place P_1 he would be sensing S_1, *and* if someone were at place P_2 he would be sensing S_2, *and* if someone were at place P_3 he would be sensing S_3, and

so on. Here is one series of 'ifs', an indefinitely long one. We shall need the whole series for the analysis of such a sentence as 'the walls of the bathroom are blue'. But this is not all. Each of these if-clauses contains further if-clauses inside itself, so to speak. We see this when we ask what is meant by 'if anyone were at place P_1'. To answer this, we must ask what would be meant by 'x *is* at place P_1'. The meaning must be that x is at a place at such and such a distance and in such and such a direction from *here*, where the word 'here' indicates the place which the speaker is occupying at the moment. But of course this analysis of the phrase 'being at place P_1' is not complete; we must ask the Phenomenalist to restate it in terms of sense-impressions. And then we shall find that 'so far from here' and 'in such and such a direction' refer to the sensational route, so to speak, which anyone would have to traverse if he were to pass from P_1 to the place where the speaker is—the series of visual and other impressions which he would have experienced if he had gone from there to here. This will be a series of spatially-adjoined visual or tactual fields, and the last member of the series will be the visual or tactual field which the speaker himself is sensing at the moment. Thus the Phenomenalistic analysis of 'x is at P_1' (i.e. is so far from here, in such and such a direction) will be something like the following: x is sensing a visual or tactual field such that *if* he had replaced it by another spatially adjoined to it, and *if* he had replaced that by another spatially adjoined to it, and *if* he had replaced that in turn by still another, and so on, then eventually he would have been sensing the visual or tactual field which actually is being sensed by the speaker at this moment. All these 'ifs' must go inside the protasis-clause of the hypothetical sentence 'if anyone were at place P_1, he would be sensing S_1'. For the Phenomenalist will have to say that they are contained within the meaning of the phrase 'being at place P_1'. In the same way 'being at P_2' will have to be defined in terms

of the hypothetical sensational route leading from it to P_1; and similarly for each of all the places mentioned.

When the statement refers to a material object existing at some date in the past or the future, there will be still greater complication. For the first stage of the analysis will yield hypothetical propositions such as 'if anyone had been at place P_1 at time t, he would have sensed S_1', 'if anyone had been at place P_2 at time t, he would have sensed S_2', and so on. 'At time t' will mean 'so many minutes or hours or days before *now*'; and this in turn will have to be analysed in terms of a sensational route by which someone could have been *going* to sense the sense-field at present sensed by the speaker, and will accordingly contain a whole series of 'ifs' inside itself. 'x had a sense-experience at a past date t' (e.g. '3,000 years ago') must be equivalent to something like the following: 'he sensed a sense-field such that *if* he had been going to sense a later one spatio-temporally adjoining it, and *if* he had been going to sense a still later one spatio-temporally adjoining that one, and so on, then eventually he *would* have been going to sense the sense-field which is at present being sensed by the speaker.'

Even this is not all. When we say, 'if someone were at place P_1 he would be sensing so and so', we mean, 'if he were *really* at place P_1'. He might merely dream he is there, or have a hallucination of being there; but that would not be enough. Our if-clause must mean 'if his experiences were such that if he *really* moved in a certain direction and for a certain distance he would be here' (where the speaker is). Thus the sensational route in terms of 'which being at P_1' is defined—the series of intermediate experiences by which the experience of being *there* could be exchanged for the experience of being *here*—is something even more complicated than we have said. It must be a series consisting of 'normal' or 'veridical' impressions, not of hallucinations. And when we ask for the Phenomenalistic translation of this

requirement, still more 'ifs' rush in upon us. Let the series (the sensational route) be ABCDEF, &c. What is required is that at any stage of it, say B, he must be able to pause and obtain *further* B-ish impressions—enough of them to establish that he is not dreaming or having a hallucination. Then he must be able to do the same at the next stage C, and so on throughout. At any stage of the series leading from P_1 to here (where the speaker is) there must be the possibility of another series, branching off, so to speak, from the main one; and what is required is that *if* he had obtained impressions belonging to this bye-series, he would have verified the existence of a material object located at that place. For instance, he would have established that he has now really got as far as the foot of the stairs, and is not merely dreaming that he has got there. It is not of course necessary that he should *actually* experience any of these bye-series (he need not actually experience the main series from which they branch off). But it must be *possible* for him to have experienced each of them. For unless it is possible, it is no longer true that he might have had the experience of really moving from P_1 to here. And then it is no longer true that he might have been at P_1, for being there is only definable in terms of the possible route from there to here.

There are similar complications about time. The possible sensational route from *then* to *now*, by means of which the Phenomenalist defines any past date *t*, must consist not of dream-impressions or hallucinations, but of observations of real physical events. Let us consider the if-clause 'if someone had been in Rome in 50 B.C.' This does not mean 'if he had been going to *dream* of the assassination of Caesar, and if he had later been going to *dream* of the battle of Philippi, and if he had been going to have a *hallucination* of conversing with the Emperor Diocletian a long time after that, and if, &c.: then eventually he would have been going to sense the sense-field now sensed by the speaker'. Anyone

may dream this very day of a whole series of events filling up the entire interval between 50 B.C. and now. But he has not on that account experienced the events of 50 B.C. Thus the sensational route from *then* to *now* (like that from *there* to *here*) must consist of normal or veridical impressions. And this entails, on Phenomenalistic principles, that there must be the *possibility* of obtaining innumerable bye-series branching off from the main one. It is bad enough that our main if-clause, 'if someone had been having experiences at time *t*', itself contains a series of 'ifs'. But we now find that each of these subordinate 'ifs' has still another crop of 'ifs' attached to it.

Now of course Phenomenalists do not usually push their analysis as far as this. It is not surprising that they recoil from this monstrous complexity of 'ifs' within 'ifs'. They are usually content to stop at the first stage, in which ordinary spatial and temporal phrases are still used, such as 'two miles from here', 'in the next room to this', 'five days ago'. They do not even complete the first stage. Indeed, the completion of it would not be an easy task. For within any finite area, e.g. the area of the next room, there is an infinite number of points of view which an observer might occupy. Ought we not to enumerate them all, putting each of them into a separate if-clause (if someone were at P_1, if someone were at P_2, &c., &c.)? But this we cannot conceivably do, since they are infinitely numerous. Some expedient on the lines of Professor Whitehead's Principle of Extensive Abstraction would have to be adopted, and then we should get still more complications. However this may be, Phenomenalists are in practice usually content with such compendious formulations as 'if someone had been in the larder he would have been sensing *catty* sense-impressions'. They do not trouble to specify in any detail what kind of sense-impressions they would be (although of course they would differ from each other in shape and size and in visible or tangible qualities); nor do

they specify just what position the observer would have to be at, in order to sense a given one of them. But even though they did specify all these things in detail, they would only have completed the first stage of the analysis, as we have shown. For they would still have on their hands such phrases as 'just inside the door of the larder', 'one foot to the north of the door', and so on; and each of these phrases would have to be analysed in terms of the hypothetical sensational route by which one might have passed from *there* to *here*, i.e. to the place now occupied by the speaker. Similarly, each of the temporal phrases used at the first stage of the analysis would have to be analysed in terms of a hypothetical sensational route from *then* to *now*. The completion of this second stage of the analysis, with all the additional if-clauses which it would involve, is a truly staggering task. And could we even begin upon it, if we had not already before our minds the thought of a spatially- and temporally-ordered world of unsensed sensibilia, conceived to be already there and waiting to be sensed? What else could guide us in our choice of the right if-clauses, and enable us to know which should come after which?[1]

I do not wish to maintain that the complexity of the Phenomenalistic analysis is an absolutely fatal objection to it. But I do wish to point out that its complexity is very great indeed, much greater than is commonly realized, and that it is a very serious defect in any theory to be as complex as this. If some other theory gives a simpler analysis, then so far it will have an important advantage over Phenomenalism.

Now Hume's theory *is* very much simpler. Once we allow ourselves to mention unsensed sensibilia, we can dispense with almost all these multitudinous if-clauses. Let us first consider a statement about a material object which, as we say, is actually being observed. Then the difference between Hume's analysis and the Phenomena-

[1] Cf. below, pp. 207-9.

listic analysis may be put in this way: On either theory, we have to mention a number of particulars additional to those which are actually sensed by us. (Actual sense-impressions are far too few and fragmentary; obviously no material-object sentence whatever could be analysed in terms of them alone.) Now the Phenomenalist must have a separate if-clause for every one of these not-actually-sensed particulars, specifying the conditions under which an entity of that description *would* be sensed; for he refuses to conceive of it as something actual though unsensed. Each of these supplementary entities occurs in its own special hypothetical statement, and each of these hypothetical statements has a different protasis from every other. But on Hume's theory we need only one single 'if' for the whole lot. We simply say that actual sense-impressions are as if there were *all* these unsensed particulars at once; for instance, they are as if there were *all* the sensibilia which together constitute what we call a circular table. The sense-impressions which have occurred intermittently during the past half-hour have been brownish in colour—some lighter, some darker—and they have been more or less elliptical in shape, with varying degrees of eccentricity. They have been as if there were an entire family of particulars, whose nucleus was circular in plan and chestnut brown in colour. That is, the few actually sensed particulars have been as if there were a whole mass of additional or supplementary particulars, continuing them and filling up their gaps; in such a way that the complete group, sensed and unsensed constituents together, would have a special sort of spatial structure and a special sort of colour-structure—all of them would be either distortions or portions of a shape which is circular in plan, and all of them would fall into a set of colour-series whose common limit is a bright chestnut brown.

Let us next consider a statement about an *un*observed material object. Here Hume's analysis is not quite so simple, but it is still vastly less complex than the

Phenomenalistic one. He divides it into two parts. The first is the postulational part. It tells us what unsensed sensibilia are being conceived of by anyone who makes or understands the statement. It consists in describing a group of sensibilia G, having a certain determinate spatial structure, colour structure, &c. But in this case no actual sense-impressions are as if G existed. He therefore has to add a second part to his analysis: an addition which is not needed for statements about observed objects, for there we have got actual impressions which are as if the postulated sensibilia existed. The second part consists in saying that *if* the postulation were checked by sense-experience, then sense-impressions *would* be as if G existed, and so the postulation would be justified. (It was this addition which brought his theory nearer the Phenomenalism and occasioned the present discussion.) How would the postulation of G be checked? It is *capable* of being checked, because we conceived of these sensibilia as existing at a certain determinate place and time; if we had not, the material-object statement which formulated our postulation would have been without definite meaning. For instance, we conceived of them as located 40 miles east of here, and as continuing from now to next Sunday. The words 'here' and 'now' denote a group of sensibilia which my *actual* sense-impressions are as if they were constituents of; as common sense would say, they denote a certain object which I am actually observing at the time when the statement is made, for instance the table mentioned in the last paragraph. We shall succeed in checking our postulation, then, if we experience sense-impressions which are as if they were constituents of *some* group of sensibilia located 40 miles east of here. And if they turn out to be as if they were constituents of a group of the *determinate* sort G, our postulation will then be proper or justified. If they turn out to be as if they were constituents of a group of sensibilia of some other determinate sort, our postulation has been checked

and found wanting; it will be the wrong or unfitting response to make to those particular sense-impressions.

But when will sense-impressions of this critical sort occur? How are we going to recognize that they are in fact as if they were constituents of a group located in the required place? They will be so, we answer, if they come at one end of a *series* of impressions, the sort of series which constitutes the sensational route of the Phenomenalist. But Hume, unlike the Phenomenalist, can describe the series quite simply. He does not need a separate 'if' for every step of it, still less a bye-series of additional 'ifs' branching off from each. He only needs two altogether, a plain 'if' and an 'as if'. He merely has to say: *if* a series of impressions occur which are *as if* there were a spatially-ordered continuum of groups of sensibilia extending 40 miles eastwards from this spot (i.e. 40 miles eastwards from that group which my present sense-impressions are as if they were constituents of). That is his analysis of the conditional clause, 'if this postulation were submitted to the test of sense-experience'. And his analysis of the consequent-clause, 'the postulation of G would then be justified', is equally simple. It is, as we have seen, 'there would then be sense-impressions which would be as if they were constituents of a family of sensibilia of the determinate sort G'.

We may conclude, then, that there are very important differences between Hume's As-if Theory and Phenomenalism. These differences are by no means removed when we make the additions which are required for dealing with specific statements about unobserved objects. Nor are they to Hume's disadvantage. On the contrary, his theory, by introducing unsensed sensibilia, comes closer to the way in which we ordinarily think about the material world; and it is enormously simpler than Phenomenalism, since it dispenses with the nightmare-like jungle of 'ifs' into which the Phenomenalist would drive us. But of course the two theories do have one very important point in common.

They are both *empiricist* theories, in that both profess to analyse material-object statements without introducing any concept not abstractible from actual sense-impressions. The unsensed particulars which we imagine that there are, and the sensed particulars which we believe that there would be if circumstances were different, are both alike described entirely in terms of ordinary sense-given qualities and relations such as 'blue', 'round', 'to the right of'. For this reason Hume's own theory has sometimes been called Phenomenalistic. But if we call it so, we must insist that there are at least two quite different forms which a Phenomenalistic theory (in this wide and old-fashioned sense of the word) may take; and that Hume's form of it differs in important respects from the ordinary one, the one to which the name 'Phenomenalism' is nowadays usually confined.

CHAPTER VI

THE EXPRESSIVE THEORY

WE have now completed our exposition of the As-if Theory. The problem which it had to solve arose from two theses, both of which are maintained by Hume: (1) that we mean, and can only mean, by a material-object word or phrase a group of sensuously-qualified particulars, many of which—in the case of a totally unobserved object, all—are unsensed sensibilia; (2) that it is 'in vain', i.e. meaningless, to ask whether unsensed sensibilia actually exist or not, since their existence is by definition unverifiable. But, thirdly, as we all agree, and as Hume never dreams of denying, there is some good sense in which material-object sentences are true or false; and we very often succeed in establishing, beyond any reasonable doubt, that a given material-object sentence *is* true, and another false. How is this possible, if theses (1) and (2) are correct? The As-if Theory is an attempt to answer this question. It points out, as we have seen, that actual sense-impressions really are *as if* such and such groups of unsensed sensibilia existed; this is still so, even though it be in vain to ask whether unsensed sensibilia do in fact exist or not. And the material-object sentences of daily life, it is suggested, are abbreviated ways of saying that actual sense-impressions are (or in assignable circumstances would be) *as if* such or such unsensed sensibilia existed; accordingly these sentences are true or false, as we all think they are, and can be verified or refuted by sense-experience.

But there is another way in which Hume might have solved this problem without departing from the main principles of his philosophy. It is what we called the Expressive Theory. (It was suggested to me by Mr. F. P. Ramsey's account of Causal Laws in his essay *General Propositions and*