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*

Causality;[1] it bears much the same relation to Hume's actual statements in the present section as Mr. Ramsey's theory bears to Hume's actual statements about Necessary Connexion in *Treatise*, Book I, Part iii, and in the *Inquiry Concerning Human Understanding*.)

According to this theory, material-object sentences are not strictly speaking true or false. Apart from the purely analytic sentences concerning the 'relations of ideas', which are not here relevant, the only sentences which are strictly true or false are those which concern actually presented sense-impressions, or impressions of reflection, or images. Material-object sentences accordingly are not *statements*. We cannot ask whether they accord or discord with an objective state of affairs. What then is their function? It is to *give expression* to certain sorts of mental processes. So far, they are more like exclamations than they are like statements. But they differ from exclamations in that the mental processes to which they give expression are not emotions, but activities of the imagination, activities of imaginative extrapolation and synthesis. If we like to put it so, material-object sentences give expression to 'the way in which our mind works' when it is confronted by the fragmentary or 'gappy' data of sensation. And its working consists in supplementing them and co-ordinating them. Sentences such as philosophers formulate, e.g. 'every material object endures through time', 'exists whether perceived or not', 'occupies a volume of space', 'is public to an indefinite number of observers and accessible to different senses'—such sentences as these give expression to the basic rules according to which the imaginative process of supplementing and co-ordinating is carried on.

[1] *The Foundations of Mathematics* by the late F. P. Ramsey, pp. 237–55. Mr. Ramsey holds, if I understand him, that causal laws are not themselves statements, but are 'rules' for framing predictions. It is, however, quite possible that I have misunderstood Mr. Ramsey's essay; and even if I have not, I have no reason for thinking that he would have accepted the theory which I am about to state.

It is convenient to begin our detailed consideration of the theory by examining the statement 'there is a material world'. Philosophers dispute about this statement. Realistic philosophers maintain that it is true, or at any rate that there is evidence which renders it highly probable. Anti-realistic philosophers maintain that it is false. Now everyone, not excluding the contending parties, has a suspicion that this dispute is somehow pointless. *Specific* material-object statements, e.g. 'there is a lion in the bathroom' or 'there are white crows', are legitimate objects of dispute. But everyone feels that the highly general statement, 'there is a material world', is somehow beyond the reach of controversy. 'Tis in vain to inquire whether it is true or false. Why is this? Perhaps the reason is that it is not really intended to be a statement at all, though from lack of linguistic finesse we make it appear as if it were. Perhaps it formulates not a *proposition*—something true or false—but rather a *method* or plan of procedure: a method of co-ordinating our actual sense-impressions by supplementing them with unsensed sensibilia. To use this method is a fundamental tendency of Human Nature; and the activity in which we use it is called by Hume imagination. It is intelligible to ask whether we do use this method or not, and the answer is that obviously we do. But we cannot intelligibly ask whether the method itself is true or false. It does not make sense to apply either of these adjectives to a method. Perhaps that is the reason why the question 'Is there a material world or not?' is felt by everyone to be somehow a foolish question.

We illustrated the As-if Theory by the analogy of a game of charades. We may illustrate the present theory by another and equally crude one. Somebody tells us that the Bank of England has a method of maintaining our economic system by supplementing metal coinage with bank-notes. When we are told this, there are various questions which we may intelligibly ask. We may ask

whether the Bank really does proceed in this way, as our informant says it does, and we may easily find abundant evidence to support his statement. We may ask whether its purpose in proceeding so is what he says it is: or is it rather to increase the profits of the shareholders? We may ask what the occasions are on which the supplements are issued (e.g. before Christmas), and in what quantities. We may even ask whether this policy of the Bank's is right or wrong. But if we do, we must mean 'is it effective or ineffective for its purpose?' What we cannot ask is, whether it is true or false; not because there would be no hope of getting the answer if we did ask, but because the question itself would not make sense.

But perhaps we have not yet done full justice to the sentence 'there is a material world'. We all suspect that philosophical disputes about it are foolish. But suppose some philosopher gets us into a corner and asks us, 'Come now, is there a material world? Yes or no?' Then, though we feel that there is something silly about either answer, we also feel that it is *more* silly to answer 'No' than to answer 'Yes'. If the Vulgar are compelled to take sides in this controversy, they side with the Realists. How are we to account for this? Perhaps the reason is that the sentence 'there is a material world' is more complex than we said. Perhaps it does two things, not one; first, it formulates a method of co-ordinating sense-impressions, but perhaps in addition to this it does also state something true or false—namely, that there actually are sense-impressions to which the method applies. If so, there are two grounds, not one, for regarding it as beyond the reach of controversy; and these grounds are quite different, though each is in its own way perfectly conclusive. In so far as it formulates a method, it is beyond the reach of controversy, because a method is not the sort of thing which is either true or false. In so far as it states that there actually are sense-impressions to which the method applies, it is beyond the

reach of controversy for quite a different reason: because it states a fact which, though empirical, is perfectly obvious, so much so that no sane man would deny it.

Perhaps some positivistically-minded philosophers may feel doubtful about this last point. They may ask, is it even conceivable that sense-data should be such that the method could not be applied to them? However queer they were, could we not still speak about them in material-object sentences: not perhaps in the *specific* material-object sentences which we now use, but in others constructed on the same general plan? But if so, the sentence 'there are sense-data to which this method of co-ordination applies' does not state an empirical fact (as we said it did); it is a tautology, since it is true whatever the empirical facts may happen to be. If so, it is indeed obviously true, but not for the reason we have given.

To this I answer, first, that there might have been no sense-data at all. This suggestion is logically possible, since it contains no contradiction. That there are sense-data *is* an empirical fact, then. It is indeed the most fundamental empirical fact of all; though, to be sure, you may describe it in some other terminology if you please, supposing that you find the sense-datum terminology misleading or distasteful. But secondly, the co-ordinative method of which we are speaking will not apply to *all* sorts of sense-data, but only to some sorts. If our whole sense-experience had been confined to the awareness of sounds and smells (and why should it not have been?) the co-ordinative methods expressed in material-object sentences would not have been applicable to it. For it requires *extended* sense-data, having sizes, shapes, and sensible locations. And even this is not enough. It also requires that these extended data should arrange themselves in *gap-indifferent series*. But there is no logical necessity that they should so arrange themselves. If they came entirely at random, this would involve no logical contradiction. To

sum up: it is merely an empirical fact that there are sense-data; it is merely an empirical fact that there are extended ones; and it is merely an empirical fact that they arrange themselves in gap-indifferent series. Had any of these three things been otherwise, the co-ordinative method of which I am speaking could not have been applied; or, if Kantian language be preferred, the 'manifold of sense' would have been recalcitrant to the 'forms of the understanding'.

So far we have been considering the very general sentence 'there is a material world'. Let us now turn to specific material-object words and phrases such as 'rock', 'mantel-piece', 'tree with yellow leaves'. We commonly think that such words *denote* certain objects. But according to the present theory they do not denote at all. Words and phrases like 'red', 'colour-expanse', 'noise', 'sensibly round' do denote. They denote sense-impressions. But material-object words and phrases are more like recipes in a cookery-book: recipes for co-ordinating sense-impressions of such or such sorts. In fact, the material-object language as a whole may be compared to a limitless cookery-book, a kind of indefinitely extensible *Mrs. Beeton*, containing directions for co-ordinating every kind of gap-indifferent series of sense-impressions which may turn up in our experience. The basic principle of all the recipes is the same: you are to co-ordinate fragmentary sense-impressions by supplementing them with unsensed sensibilia, and you are to do this by assimilating gappy series to continuous ones.[1] But the specific sort of supplement which you must supply will vary with the specific nature of the sense-impressions which you are presented with.

We may formulate the theory in another and less respectful way as follows. Matter, we may say, is neither a reality nor a fiction, but a dodge: a dodge for co-ordinating our fragmentary sense-data. But strictly speaking it is not matter itself which is a dodge, but rather material-object

[1] Cf. ch. III, above.

words and *phrases*; or, more accurately still, the specific imaginative habits (habits of supplementation) to which these words and phrases give expression. And the material-object language as a whole is, or is the verbal expression of, a kind of armoury of dodges, or box of tricks, for coping with all the varieties and combinations of 'gappy' sense-impression series with which experience presents us. Dodge-words, such as these, function in quite a different way from sense-impression words such as 'red' or 'squeaky', as we have already indicated. 'That is squeaky' or 'this is red' are what we may call *ostensive* sentences. You utter such a sentence when you are actually being acquainted with an entity which falls under the denotation of the adjective 'squeaky' or 'red'. But a material-object sentence, such as 'that is a pool of water', is not an ostensive sentence, though grammatically it may look like one. It just gives expression to your resolve to apply this particular dodge or recipe (rather than some other) to the data by which you are confronted, and in uttering it you have not said anything true or false. Suppose it turns out that you were suffering from an illusion. Even so your sentence 'that is a pool of water' has not been *refuted*; no power on earth can compel you to retract it. What has happened is that this particular recipe has not, as it turns out, enabled you to co-ordinate your sense-impressions. Or rather, it enabled you to co-ordinate the earlier ones, those having a large 'sensible depth', but it does not enable you to co-ordinate the later ones *and* the earlier ones, nor indeed to co-ordinate the later ones with each other. So if you are a sensible man, you will give up using that particular recipe for the present, and try another, such as 'patch of hot sand'.

What is meant by saying that 'if you are sensible' you will give up the old recipe and try another? The point of the remark is, that you will not succeed in co-ordinating your sense-impressions unless you do. And a sensible or sane man, it would be said, is by definition one whose aim

it is to co-ordinate his sense-impressions as completely as possible. Or rather—for this suggests that it is just one aim among others—he is a man whose whole life is conducted on the basis of co-ordinating them as far as possible.

Nevertheless, although a sentence like 'this is a table' or 'that is a pool of water' is not on this view true or false, there is a *second-order* sentence—a sentence about this sentence—which *is* true or false. It *is* true, or false, that this particular recipe expressed by my original sentence does enable me to co-ordinate these particular sense-impressions. Moreover, I usually *expect* or take for granted that it will enable me to co-ordinate them; and this expectation of mine *is* capable of being either confirmed or refuted, though my utterance 'that is a pool of water' is neither confirmable nor refutable. Here we may appeal again to the analogy of *Mrs. Beeton's Cookery-book*. When she says 'take five eggs and half a pound of butter', &c., this is neither true nor false. But it is true, or false, that by following this recipe I shall produce a pleasing cake. If I in fact produce an exceedingly distasteful one, the recipe is not refuted. Nothing can ever refute it, for it formulates a method, not a proposition. But still, I shall be wise to give up that particular recipe and try another instead. And moreover, *something* has been refuted: namely the proposition that if anyone follows that recipe, a pleasing cake will result. And if I *believed* this proposition about the recipe, as I very likely did, then—in rather a different sense of the word 'refute'—this belief of mine has been refuted; though I cannot intelligibly be said to have believed or to have disbelieved the recipe itself. (Perhaps I may be said to have 'believed in' it. But 'believing in', despite the verbal form of the phrase, is an altogether different thing from believing, and is a practical attitude rather than a cognitive one.)

We must now consider this queer theory in more detail.

So far, what it comes to is that the imaginative postulation of unsensed sensibilia is merely a device for co-ordinating actual sense-impressions; and that the words of which the material-object language consists—not only nouns such as 'table' or 'rock', but also adjectives and adjectival phrases such as 'cubical' or 'two miles away from'—give expression to various dodges or recipes for postulating unsensed sensibilia with a view to such co-ordination.

But what does the theory mean by 'co-ordinating'? This is a difficult question, and we shall have to approach the answer to it by a somewhat indirect route. It is indeed easy to think of synonyms, or approximate synonyms, for the word: 'comprehending', 'making sense of', 'getting a grasp of', or perhaps 'making intelligible'. But this does not help us much; the synonyms themselves stand in equal need of clarification. Perhaps it may be suggested, then, that co-ordinating has something to do with *prediction*; or at any rate that the imaginative dodges or recipes of which we have spoken do enable us to predict future sense-impressions, and that this is actually their most important function, whether 'co-ordination' is the best word to describe it or not. (It will be remembered that according to Mr. Ramsey the sentences which formulate causal laws are essentially recipes for framing predictions.)

Let us consider this suggestion. First we may point out that it seems unduly narrow. If these imaginative devices enable us to predict future sense-impressions, surely they must equally enable us to 'retrodict'[1] past ones? Not only so: they must enable us to infer to *contemporaneous* sense-impressions as well, a process which might be called 'juxtadiction'. From a practical point of view, prediction is no doubt far the most important of these three extrapolatory processes. But from a logical or an epistemological point of view, it seems to make no essential difference whether the imaginative process directs itself towards the

[1] I borrow this useful word from Mr. G. Ryle.

past, the present, or the future; the 'passage of the mind' seems to be the same in kind in all three. However, we need not stress this point at the moment; let us confine our attention to prediction. Is it true that these imaginative devices (expressed in material-object words and phrases) do enable us to predict future sense-impressions?

If we answer 'Yes', we shall simplify the situation too much. It is true that they enable us to predict something, and likewise to retrodict and juxtadict. But what is it that is predicted? Not *sense-impressions*, at least not in the first instance, but *sensibilia*. Let us consider an example. When I say 'This is a circular table', it is suggested that I am employing an imaginative recipe for making predictions. But obviously it cannot be a recipe for predicting that I (you, someone) *will see* such and such so many minutes from now, but only, at the most, for predicting that such and such *will be there to be seen* so many minutes from now: likewise when for 'see' we substitute 'hear', 'smell', or 'tactually feel'. But if it were sense-impressions which I was predicting, obviously I *should* be predicting that I (you, someone) will *see* such and such, or hear it, or feel it. The most that the 'table' recipe enables us to predict is that certain *sensibilia* will be occurring at such and such a time. It does not enable me to predict that I or anyone else will sense them, i.e. that actual *sense-impressions* will be occurring. Likewise, the most I can retrodict by means of this recipe alone is that such and such *sensibilia* were occurring at such and such a past time—that they were there to be sensed—not that anyone actually sensed them; and the same holds for juxtadiction. To speak with the Vulgar, it is one thing to infer that so and so will be there to be seen, but it is quite another to infer that someone will see it; whether the table will actually be seen five minutes from now depends on many circumstances which have nothing to do with the table itself. In the terminology of this theory: the predicting of actual sense-impressions requires other

recipes or dodges, over and above the ones expressed by the word 'table' and other such words; it requires those which are expressed by the technical language of Physics and Physiology.

It appears, then, that the imaginative recipes of which we are speaking—those expressed in our every-day material-object words and phrases—do not enable us to predict sense-impressions, or at any rate not directly. Prediction, retrodiction, and juxtadiction are processes *within* the imaginative scheme or construct (the scheme of imaginatively postulated sensibilia) and only enable the mind to pass from one sensibile to another. But if we said no more than this, we should leave out the most important point. Though the imaginative scheme does not enable us to predict future sense-impressions outright, we do expect that we shall be able to accommodate new sense-impressions within it *when and if* they turn up; indeed, this is the most important function of such imaginative recipes, and the test of their success or failure. (For, as we saw, they can either succeed or fail, though they cannot be true or false.) And no doubt it was this accommodating of new sense-impressions, if any, which was in the minds of those who said that the function of the recipe was to *predict* new sense-impressions, though they stated their view in a misleading way. We must add, however, that when we speak of 'accommodating new sense-impressions', the word 'new' means 'new to us': it covers previous and contemporaneous sense-impressions, as well as future ones, provided that we were not aware of their existence, or had forgotten it, at the time when we adopted that particular imaginative device.

But what is this 'accommodating'? In explaining what it is, I am afraid we shall have to use the mysterious verb 'to co-ordinate' over again. The situation which we are tempted to describe, misleadingly, as 'predicting future sense-impressions' is more accurately described as follows:

We co-ordinate present and recently past sense-impressions with one another (those which we are now sensing or remembering) by the postulation of unsensed sensibilia; and when and if new sense-impressions turn up, we expect that this same postulation of unsensed sensibilia will enable us to co-ordinate the new sense-impressions *with* the already-co-ordinated old ones. This co-ordinating of new impressions with already co-ordinated old ones, by the mediation of unsensed sensibilia, is what is called 'accommodating new impressions within the imaginative scheme or construct'. And if we find that it cannot be done, that particular imaginative device must be abandoned and a new one adopted instead: not because the original one has been refuted—for it is not the sort of thing which is either true or false—but because it has failed to perform its function.

We find, then, that we have not yet succeeded in elucidating the phrase 'co-ordination of sense-impressions', the key-phrase of this theory. But perhaps we are nearer to success than we were. For at least we now see that it is not to be defined in terms of prediction, nor even in terms of prediction, retrodiction, and juxtadiction together; and we also see why it is natural and plausible to suggest some such definition, though mistaken. We may now suspect that in order to co-ordinate sense-impressions we must first, so to speak, turn them into sensibilia; that is, we must regard them as entities which *would* have existed, or occurred, even if we had not sensed them. When one says 'this is a circular table', the very view which one sees is conceived of as something which would have existed from that place and at that time even if one had not seen it, and even if no one had seen it. Here we may refer to a dictum of Professor H. A. Prichard concerning the consciousness of the Vulgar. He says that when the plain man sees a colour 'he straight off mistakes it for a body'. According to the present theory, this remark needs to be amended. It is not a question of mistaking, for it is in vain to inquire

whether there be body or not. But it would be true, according to the present theory, that the plain man straight off conceives of the colour not indeed as a body, but as a constituent of a body, and as something which would still have existed at that time from that place even if he had not happened to see it.

But granted that we must conceive of our sense-impressions in this way *before* we can co-ordinate them, we still have not said what the co-ordination itself is. Let us now ask what co-ordination *in general* is, quite apart from this special case of co-ordinating sense-impressions. It is clear that what is co-ordinated is always a group of entities, or in Kantian language, a manifold. A single entity cannot be co-ordinated; or if we say it can, we mean that it is so co-ordinated *with* others. Now how does a co-ordinated group of entities differ from an unco-ordinated group? Obviously the difference is that *inferences* can be made within the co-ordinated group—inferences from the existence or characteristics of one member to the existence or characteristics of others—while they cannot be made within the unco-ordinated one. If the books in my room have been co-ordinated, then there is a principle such that given the subject (colour, size) of a book I can infer its spatial position in the room without going to look for it; or if I do need to look for it, I can discover *by inference* whereabouts I must look. For instance, the books might be arranged in order of size, with the larger books in the bottom shelves, and the smaller in the top ones. Then given that book x is a large book, say a Greek–English lexicon, I can infer that it will be in one of the lower shelves. But if my books have not been arranged at all, and are lying about my room anyhow in what philosophers call 'a random aggregate', I cannot possibly infer the position of my lexicon. I can only find it by hunting for it all over the room. The point can be put in another way by saying that the co-ordinated group is a *system* of some sort. For the term 'system' has

to be defined in terms of inferribility. A system is a group such that from the existence or characteristics of one member, together with some general principle or principles, the existence or characteristics of others can be inferred.

Do these considerations apply to the case which concerns us, the co-ordination of sense-impressions? Let us postpone this question for the moment. But we can see at once that they do apply to *sensibilia*—to those unsensed particulars which the imagination postulates with a view to co-ordinating sense-impressions. When we say 'this is a circular table', the group of sensibilia which we postulate *is* a system in the sense just explained. What we think of (or imagine, as Hume says) is a co-ordinated or orderly group of unsensed particulars, not an orderless multitude. It is what I have elsewhere called a *family* of sensibilia. The group is conceived of as having a nucleus of spatially synthesizable members, which fit together into a single three-dimensional shape, for example a disk or cube or other geometrical solid. This shape is what common sense calls the 'real shape' of the object, as opposed to its various 'apparent' shapes. But 'standard shape' would be a less misleading name, since in point of 'reality' all the shapes of all the sensibilia in the group stand upon one level. (According to the present theory, they are all alike imaginary. According to a Realistic theory,[1] they are all alike objective constituents of the universe.) The shapes of the non-standard members of the family are conceived of as progressively deviating from this standard shape.

Let us consider, for instance, the imaginative scheme to which the phrase 'circular table' gives expression; for simplicity we will ignore the legs, or rather that part of the scheme to which the word 'legs' gives expression. Then the standard shape which we conceive of is a disk. Deviating from this, there will be many series of elliptical shapes.

[1] Such as the theory suggested by Lord Russell in *Our Knowledge of the External World*, chs. 3 and 4, and in *Mysticism and Logic*, chs. 7 and 8.

Within each series of ellipses, there will be a progressive increase of eccentricity and a progressive decrease of area; and the direction in which the major axes of the ellipses lie will differ progressively from one series to another. An essential feature of the scheme is what Professor Broad has called 'multiple location'.[1] Every sensibile is conceived to be 'multiply located'; it is *at* such and such a place *from* such and such another place. And sensibilia which are at the same place but *from* different places will in general differ in respect of shape and size. Thus there is a certain 'relativeness' about the shape and size of a sensibile. But in so far as the shape and size are 'relative to' something, they are relative to the *place* from which the sensibile exists; they are not in the least relative to anyone's sense organs, still less to anyone's mind. According to this theory, the laws of Perspective would still hold good in a world in which there were no minds and no eyes. There is nothing 'subjective' about them.

Of the two places required for Multiple Location, it is the 'place *from* which' that is more likely to be ignored, and has in fact been ignored by many philosophers. But this notion of the place from which a sensibile exists is really not at all unfamiliar. We speak, for example, of the view of the Berkshire Downs *from* the top of the Chiltern Hills; and the Vulgar conceive of this view as existing from that place all day long whether or not anyone is viewing it.

With this scheme in mind, there are certain *inferences* we can make, which we could not make without it. Given that a number of sensibilia are all members of a family whose nucleus is disk-shaped, we can *infer* what shapes and sizes they will have, if we are told the places from which they are located. If we are told that one is from place P_1 and another from place P_2 we can *infer* what sort of ones (with what shapes and sizes) there must be from intermediate places. In short, a family of sensibilia is a system,

[1] Cf. above, p. 107.

in the sense explained above. It is a group within which inferences may be made from the existence or characteristics of one member to the existence or characteristics of another.

The principles according to which the system is ordered are in the first place the Laws of Perspective, and secondly the Laws of Reflection and Refraction. But having said this, we must at once issue a warning: all these three expressions, 'Laws of Perspective', 'Laws of Refraction', 'Laws of Reflection' must be understood in a purely *phenomenological* sense, and not in the sense which they would have in a treatise on Physical Optics. They are laws with regard to the way in which sensibilia—visible though not necessarily seen shapes—differ from each other; not about insensible agencies such as light-rays. Indeed, if they had been laws of Physical Optics, the Vulgar could have known nothing about them. But it is plain that the Vulgar are perfectly familiar with the phenomena of Perspective, and that they know very well what shape is a perspectival distortion of what; nor do they have the least difficulty in correlating mirror-images or images of refraction with more ordinary sorts of *visibilia*. They can correlate 'real' shapes with 'apparent' shapes and 'apparent' shapes with 'real' ones; and they can correlate one apparent shape with another by first thinking of the real shape of which both alike are distortions. They do all this without the least knowledge of Physical Optics. The distinction between apparent shapes and real ones was familiar to the Vulgar long before Physics was ever heard of; and so were the rules for correlating the two, in the sense that the Vulgar knew how to draw conclusions in accordance with them, though doubtless they were not able to formulate these rules in words. What we have said of shapes holds good for size, position and visible texture, and also for colours: for in the case of colours too the Vulgar distinguish between the standard or so-called 'real' colour, and other colours which

deviate from this, whether in respect of hue, saturation, or brightness; and they know how to infer from the standard colour to the various non-standard ones, and conversely, though only in a rough and approximate way.

In like manner they know how to infer from tangibles to visibles, and conversely. The principle they use is that the tangible members of the family are spatially synthesizable *inter se* (there is nothing corresponding to perspectival distortion in the tangible world as the plain man conceives it), and that they are located in the same place as the spatially-synthesizable sub-group of visible members. Sounds, smells, and sensibilia of radiant heat are conceived of as existing from places surrounding this visibly and tangibly occupied region; and their intensity is conceived to be greater or less according as the places from which they exist are nearer to or further from this central region.

We have now explained in outline what sort of system we conceive of when we utter a material-object sentence, and what kind of inferences we are enabled to make from one member of the system to another. It is clear that in conceiving of such a system we can fairly be said to be 'co-ordinating' the members. But the members, as we have described them, are all of them *sensibilia*; and the rules of Perspective, &c., by means of which the system is built up, are likewise rules concerning sensibilia. How does this conceived scheme enable us to co-ordinate *sense-impressions*, particulars actually presented in sensation—actually seen, heard, or felt? It was the co-ordination or sense-impressions which we were asked to explain, and the function of the whole conceptual scheme was to co-ordinate *them*. As Lord Russell has put it, the sensibilia are only a hypothetical scaffolding which can be removed when the edifice of Physics is completed.[1] The analogy is not indeed entirely apt. It is not true (at least according to the theory which

[1] *Mysticism and Logic*, p. 158; cf. also p. 179, *ad fin.*

we are expounding) that the scaffolding can ever be removed. We must always continue to think of sensibilia if we are to continue co-ordinating sense-impressions. The sensibilia are more like a framework than a scaffolding. But it is true that the postulation of them, complex and systematic as it may be, is only a means to a further end, and this end is the co-ordination of sense-impressions—of the sense-data actually presented to us. How exactly is it achieved?

The answer is that it is achieved indirectly, by the help of a further principle, which we have already mentioned in passing. The ordered scheme of sensibilia, for instance, the one corresponding to the phrase 'circular table', has to be *applied*, as it were, to the sense-impressions which we actually sense, so as to incorporate them within it. The additional principle which is required for this may be called the Principle of Selectivity. It is assumed that every actually sensed impression *is itself a sensibile*: not merely that sensibilia precede, follow, and accompany it—though we do assume this too—but that it is itself a sensibile, and therefore is itself a member of the co-ordinated scheme of particulars which we have conceived of, and subject to the rules of inference which hold good within that scheme. To say the same thing otherwise, the act of sensing is conceived of as a *selecting* of one sensibile (or a short temporal slice of one) out of this ordered group of sensibilia.

Perhaps it may appear platitudinous to say that every actually sensed impression is a sensibile. Is not a sensibile, by definition, an entity which is capable of being sensed? And if something *s* is actually sensed, surely it is a mere analytic consequence of this to add that *s* is *capable* of being sensed? But here there is an ambiguity. If *s* is actually sensed, what follows analytically is that *it is possible for a sensing of s to happen.* But when we say that *s* is a sensibile we are saying more than this. We are saying that *s would have existed even if the sensing of s had not happened.* For example, we are regarding the view which we see as

something which would still have existed from that place at that time even if no one had seen it. We are saying that though we did in fact see it, yet it is *independent* of our seeing of it, independent both in regard to its existence and in regard to its characteristics. This may seem a very queer thing to say, or to think. But we are not allowed to ask whether it is true or false. This Selective Principle (so the theory will hold) is just a part of the imaginative scheme, or recipe, or dodge, by means of which sense-impressions are co-ordinated; and no question of truth or falsity arises. However, there is a sense in which the Principle is not queer at all. For at least it is perfectly familiar to everyone. There is no doubt whatever that the Vulgar do conceive of their sense-impressions in the way we have described; they do conceive of them as entities which would still have existed or occurred even if no one had happened to sense them. And we are all of us Vulgar for the greater part of our lives.

Apart from this Principle our ordered imaginative scheme would be entirely in the air; it would be a work of pure imagination, having no contact with the actually presented data of sense. But once we conceive of these data as themselves constituents of the system we have imagined, it becomes possible to ask whether the scheme fits our experience or fails to fit it. By conceiving of actual sense-impressions as fragmentary and occasional slices (selections) of these continuing and perspectivally-ordered series of sensibilia, we can apply our co-ordinative scheme to sense-impressions when and as they turn up; though we cannot predict them beforehand (for as we pointed out earlier, we can only predict what will be there to be sensed, not that anyone will sense it) we are ready for them when they occur, or for reports or memories of their past occurrence. We can co-ordinate new sense-impressions with former ones, to which the *same* co-ordinative scheme fitted, for example the scheme corresponding to the phrase 'circular

table'. And once made applicable to actually experienced data, any given scheme can then be *checked* by actually experienced data. What actually *is* seen, or felt, or heard will correspond or fail to correspond with what ought to be there to be seen, or felt, or heard. Given that the sense-impression when it comes is itself a sensibile, we can ask whether it is the right sort of one, the sort of one which our co-ordinative scheme led us to predict; for sensibilia, as we saw, *can* be predicted. And the same holds for retrodiction and juxtadiction. If the sense-impression is not of the predicted sort, our co-ordinative scheme is not of course refuted, since it never claimed to be either true or false. But it has failed to perform its function. We shall accordingly give up that particular scheme and try a different one: though I think we never give up the *general* scheme of postulating some ordered family of sensibilia or other.

Hitherto we have spoken as if each such co-ordinative scheme were elaborated by the mind entirely off its own bat, so to say, without any help from experience: or at any rate we have spoken as if the general plan on which they are all alike constructed—the *family of sensibilia* plan, with its structural principles, such as the Laws of Perspective—were 'the mind's own contribution', something which we 'bring with us to the facts' and do not 'extract from the facts'. Now this would be a fair picture of what happens in adult life. One glance is enough for us to say 'this is a house'; and for 'this is a circular object' one or two elliptical sense-impressions suffice. For an adult mind, one which has full command of the material-object language, has a whole armoury of co-ordinative recipes always ready for use, and we may fairly say that it 'brings them with it' to the facts. But are we obliged to conclude from this that the notion of a family of sensibilia is an *a priori* concept, or that the Laws of Perspective and other rules of family-construction are *a priori* principles? Certainly Hume could not accept this conclusion, and there is no reason why he

should. He could say that these recipes, though they are now part of the furniture of the adult mind, and might therefore be called 'relatively *a priori*', nevertheless have an empirical basis, and that the use of them has somehow been learned in earlier experience. (An adult mind is by definition a mind which has learned how to cope with its data, both practically and cognitively.) According to him there is only one thing which the mind originally 'brings with it to the facts', and that is the imagination, as he calls it: in other words, the tendency to make extrapolations, or to supplement data with non-data. This cannot be learned, since it is an indispensable precondition of learning.

Would Hume have to hold then that the rules of Perspective and the other rules of family-construction were originally established by induction? Probably he would have said so if asked. But here he would have got into difficulty over the 'gappy' or fragmentary character of sense-experience. For example, a large drain-pipe is lying on the ground. Can we establish the rules of perspective by looking at it from various directions and distances, and noticing that there are systematic differences of shape and size between one visual sense-impression and another? It is true that these experiences, and others like them, might lead us to formulate some such rule as the following: if there is a circular sense-impression from place P_1, then there are elliptical sense-impressions from places P_2 to P_n. But unfortunately this rule, if it is simply and solely a rule about actually presented impressions, will very soon be refuted. If we refrain from going to place P_2, or shut our eyes when we do go, there will be no elliptical sense-impression from that place. *Unsupplemented* sense-impressions, taken just as they come, display no invariable regularities; as soon as we try to formulate any rule about their coexistences or sequences, we find that any drowsy nod will refute it.[1]

[1] Cf. pp. 7–8, above.

But with supplemented sense-impressions it is different. Once the imagination has filled in the gaps, by postulating additional particulars in accordance with the principle of Gap-indifference, we are able to discover rules of coexistence and sequence which are not liable to be refuted in this way. Supplemented sense-impressions do actually exemplify the rules of Perspective, and other sorts of regularity. They do provide us with the constant conjunctions which inductive generalization requires, whereas the conjunction of *un*supplemented sense-impressions are *in*constant.

Thus, provided he insists on the difference between bare sense-impressions and supplemented ones, it is after all open to Hume to maintain that the rules of Perspective, and the other rules of family-construction, are established inductively. He can hold that our capacity of imagining perspectivally-ordered families of sensibilia, and of co-ordinating our data by incorporating them into such imaginative schemes, is something which has been learned in the course of experience, even though we adults have forgotten how we learned it. It is not that for some inscrutable reason every human mind 'must' think of its data in this way, because it is the nature of the human mind to think like that, or because it has some intuitive and non-experiential insight into the rules of Perspective and other rules of confamiliarity. There is no need to resort to any such pseudo-Kantian dogmas.

But if we say that the rules of Perspective and the other rules of confamiliarity were learned inductively, we must again insist that this induction was of a more fundamental sort than the inductions most commonly discussed by logicians. For the inductions most commonly discussed concern relations between *material objects*, or between states or changes of material objects. But the induction we are speaking of is something without which material objects could not be conceived at all. This induction, by which the rules of confamiliarity are discovered, starts like all others

from constant conjunctions. But the *conjuncta* are not material objects, nor states or changes of them; they are what we might call 'views'. We find that views from different places differ from one another in a systematic way. On the other hand, if the *conjuncta* are not material objects, neither are they bare data. For these views are conceived as existing continuously, each from its appropriate place, whereas they are sensed intermittently. They, and the constant conjunctions between them, can only be brought before our minds if the bare data are first supplemented by the extrapolative activity of the imagination. As we said at first, this extrapolative tendency *is* something which the mind 'brings with it to the facts', and Hume would cheerfully admit as much. But, he would say, there is no need to suppose that it brings anything more.

Hitherto we have only considered the account which the Expressive Theory would give of sentences concerning intermittently observed objects. (All observation, of course, is intermittent.) According to the theory, such sentences are not themselves true or false; they just give expression to dodges or recipes for co-ordinating sense-impressions. What is true or false is a second-order sentence saying that such and such a recipe does enable us to co-ordinate a certain lot of sense-impressions, and such and such another does not. Thus as I sit here writing, it is true that 'this is a sheet of paper' does enable me to co-ordinate my present and recently past sense-impressions, and 'this is a wax tablet' does not. Common sense, of course, would say that 'this is a sheet of paper' is *itself* true (or false as the case may be); and this contention would be denied by the theory. But it is not so very surprising that common sense, or common speech, should fail to distinguish the first-order sentence from the second-order sentence about it; perhaps, indeed, this is rather a brachylogy than a confusion. Moreover, the theory will allow that even the first-order sentence

is *proper* or *fitting*—is the right and proper thing to say in the circumstances—even though it will not allow it to be true.

But, we have now to ask, how can these considerations apply to sentences about totally unobserved objects? In ordinary speech we say that these too are either true or false, and must be one or the other, even though no one ever actually verifies them. But how can the theory maintain that *these* sentences (or the imaginative processes they express) are co-ordinative of sense-impressions; and that second-order sentences about them are true or false, even though they themselves are neither? How can it hold that they are fitting or unfitting, proper or improper? For in this case, *ex hypothesi*, there are no sense-impressions to be co-ordinated.

It will be remembered that the As-if Theory also got into difficulty over sentences about completely unobserved objects, and we explained at length what kind of solution it might offer.[1] The present theory would have to offer a very similar solution, so we can now afford to be brief. Obviously it must point out that any such sentence is by definition a sentence about *observables*. Any material-object sentence whatever tells us what is 'there to be seen' (touched, heard, &c.) from a certain set of places at a certain set of times. Therefore it is always *capable* of being checked by actual sense-experience, whether it actually is so checked or not. When we say in ordinary life that such a sentence is true though unverified, we shall mean on this theory that *if* it were to be checked by actual sense-impressions, the actual sense-impressions *would* be co-ordinated by it; that the co-ordinative scheme of sensibilia which it expresses *would* succeed if put to the test. Conversely, when we say in ordinary life that such a sentence is false though unrefuted, we shall mean that if the scheme were to be checked by actual sense-impressions, it would not in fact enable us to co-ordinate them.

[1] pp. 164–77, above.

I have now finished my exposition of the Expressive Theory. It is a very queer theory, certainly; and in stating it I have done my best to emphasize its more paradoxical features, so that any disciple of Hume who feels disposed to accept it may know what he is letting himself in for. But it could easily be made to look a good deal more respectable. Just as we found that many philosophers have accepted the As-if Theory, without quite seeing what they were doing, so it is with this present theory too. And if the fact has been concealed both from the philosophers and from the public, the reason lies as before in the grandiloquent and comfortable-sounding language which they thought fit to use. For example, whose who accept the Coherence-analysis of Truth accept this Expressive Theory of material-object sentences, or something very like it. For, according to them, the word 'true', in so far as it applies to material-object sentences, just *means* 'co-ordinative of sense-impressions'. When we utter a true material-object sentence, they would say that its trueness consists precisely in the fact that the piece of thinking which it expresses 'makes our sense-experience coherent', or enables us to 'systematize our sense-presentations', or the like. They would also hold, as this theory does, that the material world is a 'construction', and that any object within it is a 'construction'. Moreover, it is not only professional philosophers who use this 'construction' language; we also find it used by philosophizing physicists. It must be admitted that these thinkers, and their scientific allies, would usually say that the construction was an intellectual or conceptual construction, whereas Hume says it is imaginative. But I think this difference is much smaller than it looks, and indeed is mainly terminological. Perhaps we might sum up the situation thus: according to the Expressive Theory, material-object sentences *are* true or false in the 'Coherence' sense, though in the 'Correspondence' sense they are neither true nor false. And it could be argued, I suppose, that the

words 'true' and 'false' are used in both these senses in ordinary life, so that both are legitimate. But this is a point which I do not propose to discuss. I only wished to show that this Expressive Theory could easily be made to appear harmless, and almost venerable.

But something very like the Expressive Theory has also been held by quite a different group of philosophers: I mean the Pragmatists. As Pragmatism is often accounted disreputable, I have already made use of quasi-Pragmatist phraseology when I wished to emphasize the more paradoxical features of the Expressive Theory. I did so when I said that according to the theory the material world is neither a reality nor a fiction but a dodge; or rather, that the imaginative schemes to which material-object sentences give expression are just dodges. For the Pragmatists would agree that the question we have to ask about a given material-object sentence is not 'Does it correspond to the facts?' but rather 'Does it work? Is it effective for its purpose?' Now if it does work, the Pragmatist will of course say that it is true; for according to him '*p* is true' is equivalent to '*p* works'. Whereas according to the Expressive Theory we must not say that it is true, but only at the most that it is fitting or appropriate. But this is a disagreement about a point of General Epistemology (as to the meaning of the word 'true' in general) and does not concern us here. The important point for us is that the two theories hardly differ at all in their conception of the way material-object sentences function.

It must indeed be confessed that some Pragmatists seem to have used words like 'working' and 'being successful' in what I may call a purely bread-and-butter sense. When they said that '*p* works' they meant, or seemed to mean, that the entertaining of *p* enables us to satisfy our desires. Now according to the Expressive Theory this is not the sense in which material-object sentences 'work'; or if they do usually work in this sense also, that is irrelevant. It

would hold that their function, the purpose for which these dodges or recipes are used, is not a bread-and-butter one at all, and has nothing particular to do with anyone's desires. Their function, it would say, is to co-ordinate sense-impressions. However, the Pragmatists, especially the later ones, do not always define 'working' and 'successful' in this purely practical way. They often appear to mean by '*p* works' something like 'the entertaining of *p* enables us to *predict* future sense-experiences'. If they do mean this, the difference between their theory and the Expressive Theory is greatly diminished. As we saw earlier, it is not indeed strictly accurate to say that the imaginative schemes expressed in material-object sentences enable us to predict subsequent sense-impressions; the inferences which they make possible are inferences about *sensibilia*—about what will be there to be observed, not about the observing of it, if any. Still, every such imaginative scheme is designed to incorporate new sense-impressions within it, when and if they turn up, and this does provide the test of its failure or success. If we are enabled to incorporate them within the scheme when they do turn up, then we may say if we like that the scheme has 'worked'; and if not, we may say that it has failed to 'work'.

CHAPTER VII

CONCLUSION

WE have now stated and discussed the two constructive theories of perception (or of material-object sentences) which may be extracted from Hume's section on *Scepticism with regard to the Senses*: the As-if Theory and the Expressive Theory. I do not, of course, maintain that Hume himself held either of them. Officially, as we have seen, his attitude is one of despair; he thinks that no constructive theory of perception is possible at all. But as we have also seen, his despair arises from a mistake. He thinks he has discovered that there is 'a direct and total opposition betwixt our reason and our senses, or, more properly speaking, betwixt those conclusions we form from cause and effect, and those that persuade us of the continued and independent existence of body'.[1] But this opposition can be resolved. It is in effect the opposition between two theories of sensation, the Generative Theory and the Selective Theory. We saw that these two Theories can be reconciled, provided we hold that the continuance of an entity through time consists in any case in the perpetual generation of successive particulars; and though Hume does not always hold this theory of continuance, he sometimes does, and it is the only one which is consistent with the main principles of his philosophy. His constructive theory of Gap-indifference, and of the supplementation of gappy sense-data with imaginary sensibilia, which he expounds in the earlier parts of the section, therefore admits of being developed farther.

The two theories we have just been stating, the As-if Theory and the Expressive Theory, are the two most obvious lines which this development might take. Of the two, I suspect that Hume himself would have preferred the

[1] E. p. 221; S.B. p. 231. Cf. p. 104 et seq., above.

second. It brings out more sharply the imaginative character of our consciousness of the external world, saying frankly that what are called 'perceptual judgements' are pieces of imaginative co-ordination; and the whole tendency of Hume's theory of knowledge is to analyse 'knowledge of matters of fact' into a combination of imagination and sense-acquaintance. I have already said something about the affinities of this Expressive Theory. If I am right in thinking that Hume himself would have preferred it, it will be worth while to say a little more. We find that it brings him nearer both to Kant on the one side, and to the modern Positivists on the other.

Kant, too, would say that our statements about phenomenal objects are expressive of an activity of imaginative synthesis directed upon a manifold of sense-impressions, though he lays less stress upon the 'gappiness' of the manifold than Hume does. He would, of course, add that this synthesis was intellectual as well as imaginative. But the line which he draws between imagination and understanding is by no means a clear one; he sometimes tells us that the imagination is the understanding working blindly, and that the understanding is merely the imagination become self-conscious. It is true that Hume would not admit that there are any *a priori* synthetic judgements, whereas the whole of the *Critique of Pure Reason* is based upon the opinion that there are. The only *a priori* judgements Hume will admit are those concerning the 'relations of ideas', and these are all analytic. But then it is not clear that Kant's *a priori* synthetic judgements *are* judgements in any ordinary sense. Certainly '*a priori* synthetic judgements' and '*a posteriori* synthetic judgements' do not stand for two co-ordinated species of the genus 'synthetic judgement'. *A priori* synthetic judgements seem rather to be rules or directions for forming judgements, than themselves judgements. For example, 'Every phenomenal substance endures through time' is not at all the same sort of statement as 'every cat has whiskers'.

It formulates a rule directing us how sentences about cats, stones, water, &c., are to be used. Likewise the *a priori* concepts which enter into these judgements do not seem to be concepts in the ordinary sense. Their analogues in the sphere of language would not be ordinary general words and phrases such as 'man', 'red', 'runs', or 'to the right of'; but rather *syntactical* words such as 'nominative' or 'accusative'—words which are not part of our ordinary vocabulary, but stand for modes of combining the different words which *are* parts of it. That is why we are told of these *a priori* concepts that 'without intuitions they are empty'.

However, I do not, of course, pretend that there is no important difference between Hume's theory of the external world, according to this interpretation of it, and Kant's theory. I only suggest that the two theories are much less different than they look at first sight, and that students of either may learn something by studying the other.

The Expressive interpretation also brings Hume's theory nearer to modern Positivism (which again seems to be much more Kantian than it is generally admitted to be). The main difference is that whereas Hume uses a *psychological* terminology, the modern Positivists—at least in the latest phase of their thought—prefer a *syntactical* terminology. When Hume speaks of the Imagination, they would speak of 'the Material-object language', and when he speaks of sense-impressions, they would speak of 'the Sense-datum language'. Likewise, instead of talking of sensibilia, as we have made Hume do ('unperceived perceptions' is his own phrase), they would talk of 'sensibile-sentences'. The habits of the Imagination, of supplementing sense-impressions with sensibilia, and of regarding sense-impressions as themselves sensibilia, i.e. as entities which would still have existed even if they had not been sensed—these habits will become the rules for the use of the material-object language, rules which constitute the 'grammar' of material-object words and phrases. And the problem which Hume is

trying to solve is in their terminology this: What are the rules for correlating sentences in any one of these three languages with sentences in the other two? When he contends against the Representationist Philosophers that material objects consist entirely of 'perceptions', i.e. of sensibilia sensed and unsensed, and cannot otherwise be conceived at all, they would render this contention as follows: Any material-object sentence is equivalent to a certain sort of conjunction of sensibile-sentences; or, material-object sentences on the one hand, and a certain sort of conjunctions of sensibile-sentences on the other, are inter-translatable. But no *sense-datum* sentence, and no conjunction of sense-datum sentences, is equivalent to a material-object sentence, nor inter-translatable with it. In Hume's own terminology, sense-impressions are always fragmentary; they require, and receive, supplementation from the imagination, and until they have received it, we cannot conceive of a material world at all.

Nevertheless, the Positivists would proceed, we do have rules which tell us that given a number of sense-datum sentences of such and such a sort, it is right and proper to utter a material-object sentence of such and such a sort. Given certain 'protocols' such as 'round colour-expanse from here', 'elliptical colour-expanse from there', &c., it is right and proper to say 'here is a circular object', though no finite number of such protocols is *equivalent* to the sentence 'here is a circular object'. Such rules are part of the 'grammar' of material-object words and phrases. These rules, it would be said, are perfectly well known to us all, in the sense that we all know how to speak in accordance with them. What we call learning the *meaning* of material-object words or phrases consists precisely in learning these rules for their use. Our task as philosophers is to formulate these rules; and this is the task which Hume attempted in his discussion of Constancy and Coherence (or Gap-indifference, as we called it). When he is describing the

'effects' of Constancy and Coherence upon the Imagination, he is really trying to tell us what the rules are for passing from sense-datum sentences to material-object sentences. Everyone agrees that the rule for the use of any material-object word 'M' is of the following form: given that sense-datum sentences of a certain sort have been verified, you may say 'there is a material-object of the sort M'. Hume is telling us *what* sort of sense-datum sentences they must be.

I said that according to the Positivists our business as philosophers is to formulate these rules for the use of material-object words and phrases, and for the use of sentences in which they occur. But, they would add, it is not our business to justify them. Not that we wish we could justify them, but unfortunately find the task too difficult for us. The very wish, they would say, is senseless. If anyone professes that he has it, his words mean nothing. Given that you know the rule for using a certain material-object word, e.g. 'table'—you know that you are to utter it when sense-datum sentences of such and such a sort have been verified—and given that sense-datum sentences of the required sort *have* been verified, then it is certain that there *is* a table. To ask 'but is it really there?' is meaningless. When we say '*x* is really there' ('really does exist', &c.) all we mean is that the *sentence* '*x* is there' is being rightly used, i.e. is being used according to the rules of its use. And in this case, by hypothesis, it *is* being rightly used; by hypothesis, the conditions laid down in the rules are actually fulfilled. So no further question arises, or can arise. And this, Positivists would claim, is the point of Hume's remark that 'tis in vain to inquire whether there be body or not. The point is that there are rules for the use of material-object words and phrases, rules which are perfectly familiar to everyone who has learned to speak, whether philosophers have succeeded in formulating them clearly or not. And everyone knows that there are innumerable situations in which the conditions laid down in these rules are fulfilled.

I have now concluded my examination of Hume's section *Scepticism with regard to the Senses*. In the course of it I have had to consider a number of very curious opinions, some of them explicitly defended by Hume himself, others suggested by what he says. They all arise directly or indirectly from the following fundamental contentions: (1) The conception of material-objectness is to be defined and can only be defined in terms of 'perceptions' (sensuously qualified particulars). Otherwise we do not know what we mean when we speak of material objects. By 'a material object', then, we must mean an ordered and continuous complex of perceptions. This contention follows from the principle that all ideas are derived from impressions. (2) The 'perceptions' (sense-impressions, sense-data) which we are actually acquainted with in sensation are fragmentary and discontinuous. Thus all material objects must consist partly, and some wholly, of *unperceived* perceptions (unsensed sensibilia). (3) Since the existence of unperceived perceptions is by definition unverifiable, there is no conceivable way of establishing that they do exist; nor, of course—though as we have seen Hume goes wrong about this—of establishing that they do not. (4) Nevertheless, it is a tendency of Human Nature to postulate or imagine such unperceived perceptions, in order to fill up the gaps in the perceived ones. And material-object sentences are designed to give expression to these postulations. (5) Further, there is a sense in which these postulations may be either right or wrong, fitting or unfitting, even though it is in vain (meaningless) to ask whether the *postulata* exist or not. Imaginative postulation is subject to rules, rules which may be summed up under the general head of 'Gap-indifference'. The fundamental rule is that when a series of sense-impressions is both gappy and gap-indifferent, it is proper to assimilate it to the continuous series by reference to which its gap-indifference is defined. (6) When a material-object sentence gives expression

to a proper or fitting postulation (or rather, to a suitably interrelated set of them) we are said to be 'knowing a matter of fact'; for example, the matter of fact that there is a table over there. (7) But this is not 'knowledge' in the sense in which we may be said to know sensibly or introspectively evident facts about actually given sense-impressions or impressions of reflection; nor yet is it 'knowledge' in the analytic sense, knowledge of the relations of ideas. It is a process which can only be defined in terms of imaginative supplementation and synthesis, though of course it is none the worse for that.

The two theories which we have just been examining—the As-if Theory and the Expressive Theory—are two alternative ways of explaining in detail what the rightness or wrongness, the propriety or impropriety, of an imaginative postulation consists in. According to the one, we imagine rightly or fittingly when the sense-impressions actually sensed are *as if* the postulated sensibilia existed. According to the other, the postulation is right or fitting when it enables us to *co-ordinate* the sense-impressions we actually sense.

Both the theories are admittedly queer, even though they could probably be made to look a good deal less so by the choice of a different and less psychological terminology. But if they are unacceptable, the fault must lie in the contentions which I numbered (1), (2), and (3) above. Given these, we are inevitably driven either to the As-if Theory or to the Expressive Theory. Now (2) is simply an obvious empirical fact, though no one before Hume seems to have seen its importance, and few since. It is perfectly certain that actually presented sense-data are fragmentary or 'gappy', and consequently no material-object statement can be analysed in terms of them alone. Nor can you get rid of the fact, or of this consequence, by refusing to use the sense-datum terminology.

Therefore the critic must direct his doubts upon con-

tentions (1) and (3). Either he must show that Hume's analysis of material-objectness is mistaken: that our 'idea' of a material object is not simply the idea of a group of sensuously-qualified particulars some or all of which are unsensed, as Hume says it is. Or else he must attack the contention that, since sentences about unsensed sensibilia are unverifiable, it is meaningless to ask whether such sensibilia exist or not. Perhaps he can show that these sentences are *not* unverifiable after all, or that they are verifiable in one sense of the word 'verifiable' though not in another. Or perhaps he can show that, even if they are unverifiable, there is nevertheless some good meaning in the question whether unsensed sensibilia exist or not, and good arguments in favour of the one answer or the other.

However, it is no part of my task to pursue these possibilities farther. They would take us too far away from anything Hume himself could admit, and my object in this book is only to expound Hume's own theory as fully and clearly as may be. With this end in view, I have tried to restate it in modern terminology; to free it from obscurities and inconsistencies so far as possible; to point out certain lines upon which it might be developed farther; and to bring out its relations to other theories, especially to certain Empiricist and semi-Empiricist theories of the present day. Until these things are done, the section on *Scepticism with regard to the Senses* will continue to be esteemed, but little read; or if read, dismissed as a very ingenious piece of psychology. Consequently, we shall not see Hume's theory of knowledge as a whole and in its true perspective. Nor is this simply a question of historical justice. It would be a mistake to suppose that Hume's philosophy of perception is just a curious museum-specimen, worthy of a new label perhaps, and a new place in the catalogue, after which no one but a few examination-candidates need bother to look at it again. On the contrary, it is philosophically instructive as well as historically interesting. The problems which

Hume discusses in this section of the *Treatise* have not yet been satisfactorily settled. And his suggestions concerning them are well worthy of consideration on their own merits, not merely because they happen to have been put forward at a certain stage in the history of science and literature.

Probably these suggestions of his will not satisfy anyone as they stand (who would expect it?). But they will help us to clear our own minds, or at any rate they will puzzle us in a fruitful and stimulating way. By stating certain alternatives fully and candidly—even outrageously—and showing where they lead, he may assist us to think of others which he himself overlooked. Seeing the imperfections of his terminology, imperfections brought home to us by the very rigour and consistency with which he used it, we may be assisted to devise a better one. If we do not solve the problems which puzzled him, at least he will have helped us to transmit them to our successors in a more nearly soluble state than we received them; until by continually improved reformulation, and by the progressive removal of muddles and ambiguities, they at last appear in a guise which makes the solution obvious to the point of platitude. For in this, or something like this, the progress of the Theory of Knowledge appears to consist.

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