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The Myth of Sense-Data

Author(s): Winston H. F. Barnes

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Meeting of the Aristotelian Society at Bedford College, Regent's Park, London, on Sunday, April 15th, 1945, at 5.15 p.m.

V.—THE MYTH OF SENSE-DATA.

By WINSTON H. F. BARNES.

§1.

OUR knowledge of the physical world is subject to many doubts and uncertainties but we commonly see no reason to doubt certain facts. We all agree, when we are out of the study, that we sometimes see tables and chairs, hear bells and clocks, taste liquids, smell cheeses, and feel the woollen vests that we wear next to our skin in winter. To put the matter generally, we agree that we perceive physical objects, physical objects being such things as tables, chairs and cheeses, and perceiving being a generic word which comprehends the specific activities of seeing, hearing, tasting, smelling, and feeling. These activities are invariably directed upon an object or objects; and this fact distinguishes them from other activities of ours—if that be the right word—such as feeling pained or feeling tired, which go on entirely within ourselves. We take it for granted that by means of the former activities we become aware of the existence, and acquainted with the qualities, of physical objects, and we further regard the kind of acquaintance which we acquire in this way as a basis for the far reaching and systematic knowledge of the physical world as a whole, which is embodied in the natural sciences.

Let us call experiences such as seeing a table, hearing a bell, etc., perceptual experiences; and the statements which assert the existence of such experiences perceptual statements. Many philosophers have cast doubt upon the claims made by such perceptual statements. They have produced arguments to show that we never perceive physical objects, and that we are in fact subject to a constant delusion on this score. As these arguments are by no means easily

refuted and are such as any intelligent person interested in the matter will sooner or later come to think of, they are well worth considering. Moreover, certain modern philosophers claim to show by these arguments not only that we do not perceive physical objects but that what we do perceive is a different sort of thing altogether, which they call a sense-datum. They are obliged to invent a new term for it because no one had previously noticed that there were such things. This theory is obviously important because it not only claims to settle the doubts which we cannot help feeling when we reflect on our perceptual experience, but it makes the astonishing claim that we have all failed to notice a quite peculiar kind of entity, or at least have constantly made mistakes about its nature. I hope to show that the sense-datum theory is beset by internal difficulties ; that it is not necessitated by the doubts we have about our perceptual experience ; and finally that the doubts which are caused in us by a little reflection are allayed by further reflection.

The arguments which philosophers such as Professors Russell, Broad and Price use to demonstrate that we perceive not physical objects but sense-data, are many and various, and no good purpose would be served by stating them all, even if that were possible. Undoubtedly, however, these arguments do cause us to doubt whether we are acquainted with physical objects when we think we are ; and, these doubts demand to be resolved in one way or another. If there is such a thing as a problem of perception, it must consist in reviewing the doubts which arise in our minds in this way. I shall select for brief statement three typical arguments so as to make clear the difficulties which are thought to justify the negative conclusion that we do not perceive physical objects and the positive conclusion that we perceive sense-data. There are two *caveats* to be registered. First, in compressing the arguments into a small compass I cannot hope to do full justice to the arguments, many and various, used by the sense-datum philosophers. I must leave it to the reader to decide whether I represent their general line of argument correctly or not. More than

this I cannot hope to do ; nor do I think more is necessary. Secondly, I should not be in the least surprised to be told that I already have misrepresented some of these philosophers by stating as one of their contentions that we do not perceive physical objects. Some of them would maintain that in some peculiar, or Pickwickian sense, to use Professor Moore's term, we do perceive physical objects. However, as, on their view, we do not perceive physical objects in the sense in which we think we perceive them, and we do perceive sense-data in precisely this sense, the misrepresentation is purely verbal and should mislead no one.*

I now proceed to state the three arguments. They are all taken from visual experience, and they all pose in one way or another what we may call the "appearance-reality" problem of perception.

(1) A penny appears circular to an observer directly above it, but elliptical to an observer a few paces away. It cannot *be* both elliptical and circular at one and the same time. There is no good reason for supposing that the penny reveals its real shape to an observer in one position rather than to an observer in any other position. The elliptical appearance and the circular appearance cannot be identified with the penny or any parts of it, but they are entities of some kind. It is things of this sort which are called sense-data.

(2) The stick which looks straight in the air looks

*The sense in which, on the sensum theory, we perceive objects, is described as *direct perception* or *direct apprehension* by the exponents of the theory to distinguish it from the perception or apprehension of physical objects which the theory as sometimes expounded allows to be possible. ("The Philosophy of G. E. Moore," pp. 629, 640-643.) This distinction is usually drawn by those philosophers who accept the position taken up by the philosophy of analysis that there are many statements such as 'I see the table,' 'I hear the bell,' which are certainly true, although the analysis of them requires careful thought; and at the same time are convinced by arguments which claim to show that we cannot in fact see the table in the ordinary sense of the word see. I can see no really important difference, however, between the two statements: (1) I see only sense-data in the sense in which I have been accustomed to think I see physical objects, and my relation to the physical object is not that of seeing but that of R. (2) I see only sense-data in the sense in which I have been accustomed to think I see physical objects, but I do see physical objects in the sense that I have a relation R to them.

angularly bent when in water. There are good reasons for thinking that no such change of shape takes place in the stick. Yet there *is* something straight in the one case and something bent in the other, and there is no good reason for supposing either is less or more of an existent than the other. The straight-stick appearance and the bent-stick appearance are sense-data.

(3) There may seem to be things in a place when in fact there are no such things there, as illustrated by the mirages which appear in the desert and the highly coloured rodents which appear to habitual drunkards. Not unrelated to this type of experience is the one in which we see double. If an eyeball is pressed by the forefinger while one is looking at a candle flame, two flames are seen. Although it would be possible to say that one of the flames is the actual object and the other is something else, to be called a sense-datum, it seems even more evident here than in the previous instances that there is no good reason for distinguishing between the two in this way.

In all these cases there is a suggestion that what we see in certain cases cannot be a physical object or the surface of a physical object, but is some kind of non-physical entity. It is non-physical entities of this kind which are called sense-data. The argument goes even further by urging that, if in some cases we see non-material things, it is possible and indeed likely, that we do so in all cases. This plausible suggestion is accepted by certain sense-datum theorists such as Professor Broad and is extended to cover all forms of perceiving. With the acceptance of this suggestion we reach the basic position taken by one form of the sense-datum theory, viz., we perceive only sense-data, and consequently have no direct acquaintance through our senses with physical objects.

It is clear that, on this view, the term sense-datum has as part of its connotation, the not being a physical body*.

*“ In the common usage, some characteristic which entailed ‘not a physical reality’ was put into the connotation of ‘sense-datum’; ‘sense-datum’ was so used that it would be a contradiction to say of any object that it was *both a physical reality and also a ‘sense-datum’*.” (“The Philosophy of C. E. Moore,” p. 634.)

As everything I experience is a sense-datum, the sense-experience of a table, for example, differs not at all, in itself, from an hallucination or an illusion. These latter again seem to differ only in degree from the images we have while we are day dreaming, or those we have while dreaming in the proper sense, or again from the after-images, or as they are more properly called, the after-sensations which sometimes follow our visual sensations. All these appearances would be regarded by certain philosophers as in principle of the same kind. This position is paradoxical to common-sense which regards perceptual experience as giving first-hand acquaintance with physical objects, and hallucinations and illusions as failing precisely in this respect. The common-sense ground for the distinction however is removed by the sense-datum theorist, and if in fact he does believe in physical objects, he has to substitute a new ground of a far more subtle and elaborate nature. In some cases he may prefer to get along altogether without physical objects, and may even urge that if we once give up the common-sense ground of distinction as untenable there is no other ground for believing in them.* Such questions as these, however, are domestic problems of sense-datum theorists and need not detain us, as we are intent on coming to grips with the basis of the theory itself. It is important to note, however, that once the sense-datum theory is developed in the form stated above, it follows that, even if physical objects exist, they are never present in perceptual experience ; and it becomes an open question whether they have any existence at all.

§2.

I shall consider later whether the arguments for the existence of sense-data in the sense indicated are valid. First, however, I want to state three considerations regarding the sense-datum itself. The first is of a very general nature and calculated to make us wonder whether a theory

*As Dr. Luce does, in his "Immaterialism." (Annual Philosophical Lecture, British Academy, 1944.)

which departs so radically from common sense can be true ; the second points out what extraordinary existents sense-data would be if there were such things ; the third is directed to show that the kind of difficulty the theory was carefully framed to meet tends to break out anew within the theory.*

(1) The general consideration concerning the *sensum* theory is as follows : If the theory is true, then in all our perceptual experience *sensa* are interposed between us and the physical world, whereas it is one of our most strongly held beliefs that in perception we are face to face with the physical world. I do not wish to suggest that no attempt can be made to answer this obvious objection. The *sensum* theory can and does urge that in a Pickwickian sense of the term *perceive* we do perceive physical objects, i.e., we perceive *sensa* which are related in certain ways to physical objects. Nevertheless there is no doubt that, when presented with this type of explanation, we are apt to feel that we have been given a very inferior substitute in exchange for the direct acquaintance with physical objects which we have been called upon to surrender. We receive in no different spirit the other attempted rejoinder that physical objects *are* *sensa*, or more elegantly, are logical constructions out of *sensa*, and that whether we "talk" physical objects or *sensa* is a purely linguistic affair. I shall say nothing of this rejoinder now, as I shall have occasion to discuss it later when I come to examine Mr. Ayer's view that the sense-datum theory is not a theory at all, but merely a new and better way of speaking of what we all believe.

Not only do we feel that *sensa* are an inadequate substitute for the physical objects which we claim to be confronted with

*As the form of sense-datum theory now to be considered is that which has been most clearly worked out by Prof. Broad, I propose to substitute for the word *sense-datum* in this section the word *sensum* which Prof. Broad himself uses in its place. We shall see later that what Prof. Moore and others have to say about sense-data makes it advisable to have different words for the two theories, distinguished as follows : *sense-datum*, the immediate object in perception which may or may not be identical with a part of a physical object ; *sensum*, the immediate object in perception, taken to be non-physical. Prof. Price, whose views are very like those of Prof. Broad, speaks of sense-data, but would, if he had accepted this rule for the use of the two words, have spoken of *sensa*.

in perception, but they seem to be embarrassingly numerous. Every appearance, however evanescent and fleeting, can claim to be an existent. As ordinary men, we contrast the intermittent character of our perceptual experience, broken as it is by sleep, lack of attention and change of place, with the permanent or relatively permanent and continuing status of physical objects. The changing facets of our perceptual experience we distribute carefully, crediting some to the physical world and disowning others as apparent only. The sensum theory credits all alike to reality, since it considers each and every one to be an individual entity. It is from this beginning that the wilder excesses of realism took their origin, in which not only reality but mind-independence was credited lavishly to almost anything that could be named, until the world began to take on the appearance of a great museum in which a few of the contents were real operative beings but the vast majority were exhibits only, ready to be produced on the appropriate occasion, but possessed of no other ground of existence.

I am not inclined to over-estimate the effect that a general consideration of this kind can be expected to have, but it is not lightly to be dismissed. There are philosophers to whom a single departure from the norms of common sense acts only as a stimulus to further more exciting philosophical adventures in the realms of speculation, but I confess that, for my part, I regard such a departure rather as a danger signal, warning that it would be wise to consider whether the steps which have led to this departure are as secure as they appear to be.

It is one thing to assert of a theory, however, that it presents us with a large number of existents which seem unnecessary and which, if they existed, would make it difficult to justify our acquaintance with physical objects ; it is quite another to show that the existents are not merely unnecessary but are open to grave objections. This is the second point to which we must now turn.

(2) There are two reasons for considering *sensa* to be very objectionable existents.

(i) In the first place, unlike physical objects they do not always obey the Law of Excluded Middle. If I contemplate an object at some distance, it often happens that I am uncertain whether it is circular or polygonal. It is necessary for me to approach closer before I can determine the matter with certainty. On the sensum theory, the mode in which the object appeared to me at first is a sensum, and every sensum *is* what it appears to be. Now this sensum appears neither circular nor non-circular. Therefore it is neither circular nor non-circular. Let us be quite clear on this point. It is not that I do not know whether it is circular or non-circular, though in fact it must be one or the other. It really is neither one nor the other. This kind of experience is more common than one is perhaps inclined to believe at first. When an optician asks you to read those minute letters inscribed at the bottom of his chart, there comes a time when you are compelled to say "I am not sure whether it is an M or an N," because the shape you see is sufficiently indeterminate for you to think it may be either. Of course, some eminent philosophers have thought that reality did not obey the Law of Excluded Middle, but it would be surprising to find Professor Broad in their company.

It is tempting to urge that we *must* know the shape of the sensum because an artist can sit down and draw something which reproduces the shape. A little reflection, however, will show that what the artist does is to draw something which, having a certain definite shape, will appear at a certain distance to be as indeterminate in shape as the object itself appeared. In other words, what the artist does is the same in principle as what a joiner might do by building another object like the first one which would give rise to the same sort of appearance as the first one. So far as I can see, all so-called *sensa*, i.e., colours, sounds, smells, etc., are indeterminate in this way, though under favourable conditions the range of indeterminacy is so limited that it is, for practical purposes, not of any importance.

(ii) The second reason for considering sense-data to be objectionable existents, though closely connected with the former is less formidable ; but is worth mentioning because

it leads up to a number of very interesting considerations. It is a necessary consequence of the fact that a sense-datum is what it appears to be that there is no possibility of making further discoveries about its nature. It is always possible to get to know more and more about a particular existent, such as an apple or a squirrel, and, so far as we can tell, this process need never come to an end. There is no progress to be made in our knowledge of any particular sensum. This contention may seem to go too far in view of the revelations which philosophers claim to have about *sensa*. It can, however, be justified. Our knowledge of things is increased either by observation or by experiment. Experiment, as a means of gaining knowledge of *sensa*, is clearly ruled out, since it is obvious that any movement on my part or interference with the conditions will only cause one sensum to be replaced by another. It does, however, seem as though I might increase my knowledge of a particular sensum by observing it more closely than I had done. Rather, we must say, "by observing it more closely than I am doing," for clearly, my closer observation can only yield me more knowledge if it follows uninterruptedly upon my first. It will not do for me to come back at 5 p.m. to a closer study of the sensum which my table presented at 3 p.m. Can I gain more knowledge by continuing to observe it at 3 p.m.? I think we must say that I cannot. If we were to maintain that this was possible, and that something in the sensum previously unobserved might by observation be brought to light, we should need some criterion for making certain that it was the same sensum which we were observing at a later date as at an earlier date. *But no observation or experiment can yield a criterion.* The sensum theorists offer us little help on this point. The only thing is to fall back on the principle that a sensum is what it appears to be. If we interpret this as meaning it is all that it appears to be *and nothing more*,* then the possibility of learning anything about a sensum is cut away at once, for the very good reason that we know all there is to know about it by simply having it. It is, I think, a very odd fact,

*We shall see later that there are difficulties about other interpretations.

if true, that there are existents such that their being known at all entails their being completely known.

(3) I come now to the third consideration. The sensum theory was devised to overcome the difficulty that we sometimes seem to be directly aware of some property in an object even though this property is not really present and is incompatible with others which are present. Sensa really have those properties which objects only appear to have. The chief convenience of the theory in fact is that it provides a home for every quality, real or apparent, which is experienced, and it does so by attributing to every such quality the status of a particular existent. If sensa could appear to have properties which they do not really have, the sensum theory would be bankrupt. It seems to me quite impossible to prove that sensa can appear to have properties which they do not possess. Nevertheless, the attempt is so interesting and throws so much light on the theory that I propose to undertake it.

Prof. Broad states : " It follows from this theory that sensa cannot appear to have properties which they do not really have, though there is no reason why they should not have more properties than we do or can notice in them,"* ; again : " Sensa may be much more differentiated than we think them to be "† and " a sensum is at least all that it appears to be."‡ He also says : " Each sensum is a particular having those sensible qualities and that sensible form which it seems on careful inspection to have."§

Let us see why it is impossible to prove that a sensum can appear to be what it is not. Suppose that I am looking at a distant object and report : " I can see a circular pinkish patch." Looking more carefully I say later : " It is not pink, it is white with red spots." What are we to say if we hold the sensum theory ? There seem to be several possible answers. We may say : (i) The sensum appeared pink but it is really white with red spots, or (ii) the sensum under-

*" Scientific Thought," p. 244.

† *Ibid.*, p. 244.

‡ *Ibid.*, p. 245.

§ " Mind and Its Place in Nature," p. 189.

went a change, or (iii) there were two different *sensa*, or (iv) the *sensum* is white with red spots but I failed to differentiate it properly until I inspected it carefully. The *sensum* theorist will not choose (i), because he would then be faced with the appearance-reality problem breaking out again in *sensa* which were invoked especially to lay this spectre. He would also I think reject (ii), although I can think of no good reason why *sensa*, if they exist, should not change. As long as (iii) is open, the *sensum* theorist can avoid the appearance-reality problem breaking out in *sensa*. It is clear, however, that if (iii) is adopted it is quite misleading to say, as Prof. Broad does, that it *follows* from the *sensum* theory "that *sensa* cannot appear to have properties which they do not really have."* This proposition need not form part of the theory and if laid down, it is laid down quite arbitrarily in order to prevent the appearance-reality problem arising in *sensa*. To deal with the kind of instance in question, Prof. Broad gives the answer (iv) but it seems ill-advised, for the word *differentiation* comfortably conceals the fact that the *sensum* as a whole can only become more differentiated by particular spatial patches within the whole appearing different on a second occasion from how they appeared at first. It is clear that what Prof. Broad wishes to maintain is that a *sensum* may be more than it appears to be, provided the more is not inconsistent with anything it appears to be. A simple instance will reveal the difficulty in this contention. I am waiting for a No. 3 bus and, on first glancing at a stationary bus some distance away, I think I see a number 3 on its front. On more careful inspection, however, I see that it is a number 8. It might be urged that I first of all failed to see that part of the 8 which is necessary to transform a 3 into an 8. The 8 did not appear what it was not, but it appeared less than it was. There are two ways of answering this contention: One consists in pointing out that I can just as easily mistake a 3 for an 8, in which case I see more at first than is confirmed by more careful inspection. The other, and more adequate rejoinder is to point out that in either case there was an appearance

*"Scientific Thought," p. 244.

inconsistent with what careful inspection revealed. Suppose the 3 and 8 are white figures on a black background. Then in the one case something that at first seemed black, later seemed white, and in the other case, vice versa. Similarly, in the original example, if I see as pink a large number of red dots on a white background, then every red dot is appearing pink to me and so also is the interstitial white. The more that is here revealed on careful inspection does conflict with the first appearance.

There is one other point worth mentioning. Why should it be necessary to inspect a sensum carefully before one can become acquainted with it as it is? If I press one eyeball while looking at a bright light, I see queer long streaks of light running vertically through the centre of the light and varying according to the pressure on the eyeball. It is difficult to inspect anything carefully with one finger on your eyeball, but if you remove your finger, the vision disappears. Surely, it was a perfectly good sensum? Again, if looking through green glasses gives a new sensum, why not pressing your eyeball or looking out of the corner of your eye with deliberate carelessness?

The moral of this is that those who believe in *sensa* tell us so little about the laws of their existence that we are at liberty to make a variety of assumptions on quite fundamental points. For example, how do we determine the duration of a sensum? If I blink my eyes while looking at a red patch are there two *sensa* separated in time, or is there only one interrupted in its career? If a change occurs in my visual field has the sensum changed or been replaced by another? If the latter, is there any reason why, when no change is observed, a sensum should not be replaced by another exactly like it? It may be said that to answer these questions is not important. I am inclined to agree that it is not; but the only reason I can see for this is that, *sensa* being wholly fictitious entities, we can attribute to them what qualities we please.*

*This fact is at the bottom of Mr. Ayer's contention that the sensum theory is really only an alternative language, but we shall see later that there is more to it than this.

Let us consider in a more particular way the arbitrary character of the sensum theory. Prof. Broad allows that a sensum may move across one's visual field ; but he would not I think, allow that it can change in size or qualities. Take the simple case where I am watching a cinema screen on which is depicted a round red patch moving across a background of different colour. Here, according to Prof. Broad, is a single sensum moving across my visual field. Supposing the round red patch remains stationary but slowly contracts in size before finally disappearing. Here, presumably, is a succession of sensa. Supposing, now, the red patch moves across the screen and as it does so it diminishes in size, have we one or a succession of sensa ? The answer would have to be, I think : "A succession." There would seem, then, no reason for supposing that where the size of the moving patch is constant, there should not also be a succession of sensa. If this is so, sensa do not move, they merely rise up one after another in a certain spatial order. We could equally well allow, on the other hand, that sensa not only move but change in shape, size, colour, etc. In fact, if the essential characteristic of a sensum is that it is what it appears to be, then there is a very good case for taking this view, since there certainly *appear* to be changes in the colour and shape as well as the position of what we experience through our senses. What is worth remarking is that there is nothing which enables us to consider one alternative nearer the truth than the other. As long as this kind of question can be decided only arbitrarily, it is clear that there is no way of determining the number of sensa. So we find them to have another peculiar property for existents ; they are not numerable.

Let us consider further the notion of a sensum moving across a sense field. A sense field may appear as one single variegated sensum. If one part moves in relation to the rest, we can say (i) the whole sensum is changing, (ii) the parts of the sensum are re-arranging their relative positions, or, what Prof. Broad says, (iii) a sensum is moving across the sense field. There seems to be no good reason for adopting one explanation rather than another. Similarly, if I have

a visual field, half red and half blue, I can at pleasure treat this as one sensum or as two. It is only by reference to the concrete individual reality of physical objects that I can number the appearances, distinguishing the appearance my table presents from that which my chair or my pencil presents. From a purely sensationalist point of view I am not faced with a number of *sensa* but with a changing variegated field of colour or, in the Kantian words, a manifold.

Before turning to consider the validity of the reasoning which is used to prove the existence of *sensa*, there is one other point which merits attention. One of the most serious arguments against the sensum theory is that, if it is true, it is extremely difficult to explain how from knowledge of our *sensa* we could come to knowledge of material things ; and yet, according to Prof. Broad, "all that I ever come to know about physical objects and their qualities seems to be based upon the qualities of the *sensa* that I become aware of in sense-perception."* But an even greater difficulty faces us, viz., that of being assured that material things exist at all, i.e., relatively permanent things with certain qualities and interacting with one another. Prof. Broad says : " . . . there is nothing in my *sensa* to force me logically to the conclusion that there must be something beyond them, having the constitutive properties of physical objects. The belief that our *sensa* are appearances of something more permanent and complex than themselves seems to be primitive, and to arise inevitably in us with the sensing of the *sensa*. It is not reached by inference, and could not logically be justified by inference. On the other hand, there is no possibility of either refuting it logically, or of getting rid of it, or—so far as I can see—of co-ordinating the facts without it."† Prof. Luce thinks otherwise. In rejecting the existence of physical objects over and above *sensa* he says : "To accept both the sense-datum *and* matter is to turn the one world into two."‡

*"Scientific Thought," p. 241.

†"Scientific Thought," p. 268.

‡"Immaterialism" (Annual Philosophical Lecture, British Academy, 1944), p. 6.

If I believed in *sensa* I should be found on the side of Dr. Luce, for the difficulties of distinguishing between a primitive belief and a primitive delusion seem to me insuperable.

§3.

So far we have been considering the difficulties that arise from holding that *sensa* form a class of existents totally different from physical objects. Though the difficulties are perhaps not sufficiently serious to destroy the theory, they seem to me quite serious enough to make it desirable to look carefully into the considerations put forward for inducing belief in such entities.

These considerations seem to me to reduce to one fundamental argument, and this argument seems to me to be false, though plausible. If I am right, then the reason for believing in *sensa* goes.

I quoted earlier three typical arguments for the existence of *sensa*. I now wish to examine carefully a single argument which embodies the principle of these and other similar arguments. No one will deny, I think, that a situation may exist in which the following three propositions are true :

- (i) I see the rose.
- (ii) The rose appears pink to me.
- (iii) The rose is red.

The belief in *sensa* is reached by arguing, not unplausibly, that since what I am seeing appears pink, there exists something which *is* pink ; and since the rose is red, not pink, it cannot be the rose which is pink ; therefore what I am seeing is something other than the rose. Whereupon the term *sensum* is invented and given as a name to this existent and others like it. And so we reach the conclusion :

- (iv) I see a pink *sensum*.

The argument is fallacious. *That something appears pink to me is not a valid reason for concluding either that that thing is pink or that there is some other thing which is pink.* From the fact that a thing *looks* pink I can sometimes with the help of certain other propositions infer that it *is* pink or that it *is* red ;

I may also, with the help of certain other propositions, be able to infer that something in some other place is pink, e.g., the electric light bulb which is illuminating the rose. But I cannot infer, as is proposed, *merely from the three facts that I am seeing something, that it looks pink and that it is red, that there is a pink something where the thing appears pink to me.*

This, when we examine it, is the foundation stone on which the great edifice of the sensum theory has been raised. Is it surprising that the upper storeys present doubts and perplexities? But there is worse to come. Not only is the argument fallacious but the conclusion contradicts one of the premises, viz., (i) I see a rose. It does so because, in order that the conclusion should seem at all plausible, it has been assumed that, if I were to see a rose which actually possessed a red colour, I should see it as red, i.e., it would necessarily appear red to me. This again is an assumption in contradiction with propositions (ii) and (iii) taken together. As soon as this self-induced contradiction is discovered by the sensum theorists, repair work is put in hand on one or other of alternative lines : (a) It is accepted that I do not see the rose, and an account is given of the relation in which I *do* stand to the rose and which has been mistaken for seeing. A little reflection, of course, soon convinces those who go this way that, if this is true, it is not only roses that are born to blush unseen, but the whole world of material things. In this way *sensa* become an impenetrable barrier barring for ever our acquaintance through the senses with the world of material things. This is strong meat for any but really metaphysical natures, and fortunately for the sensum theory there is another way of making the necessary repairs. (b) The alternative procedure is something like this : It is certain that I do see the rose. I have convinced myself, however, by argument that one thing I undoubtedly see, in a plain unvarnished use of the word *see*, is a pink rose-figured sensum. Hence the sense in which I see the rose must be different, i.e., "seeing" is systematically ambiguous and what exactly is meant by seeing the rose needs to be elucidated. Seeing

a rose and seeing a pink rose-figured sensum are then distinguished as quite different ways of seeing and it is convenient to refer to seeing a sensum as "directly seeing," and seeing a rose as "seeing."* The analysis of seeing the rose can then be made in terms of directly seeing a certain sort of sensum and at the same time having perceptual assurance that . . . etc., the complete analysis varying from one philosopher to another.†

There is another way in which an attempt may be made to justify the conclusion of the argument we have condemned as fallacious. I have argued that from the fact that something which is red appears pink, it does not follow that a pink sensum exists. It may be said that the existence of a pink sensum, while not following from the premises, is justified by a direct appeal to our sense experience. "I see it, therefore it is." The argument can be stated as follows: "I certainly see a pink something and to say that there is nothing pink is to say that I have no reason for believing in what I see now; and if I cannot believe in what I see now, how can I believe in what I see on any occasion, or any one else in what he sees on any occasion? If you deny the existence of this pink patch, you deny the existence altogether of the world revealed by the senses." The answer to this objection is simple, if we reflect, viz., "You never can believe in what you see on any occasion, it always may mislead you as to what the thing is. If you wish to state only that something appears to be so and so, this can safely be done. But this is not a statement about something made on the basis of a piece of evidence, it is a statement of the piece of evidence itself, which you already have before you without

*Prof. Moore makes this use of the two terms. It is worth pointing out that in ordinary language we should be ready to say that we were directly seeing the rose; in contrast, for example to seeing it as reflected in a mirror or seeing it through a microscope, where the indirectness would consist, no doubt, to our minds, in the interposition of a further medium between our eyes and the object in addition to the usual light and air. There is still an air of paradox, consequently, about the way in which the words seeing and directly seeing are used by sensum theorists.

†Philosophers tend to adopt the second alternative because it enables them to eat their cake and have it. They continue on this matter to speak with the vulgar and think with the learned, following in this respect the good Bishop of Clogher, the inventor of philosophical analysis.

clothing it in words." Modes of appearance are clues to the nature of what exists, not existents. I submit that it is improper to ask whether the pink mode of appearing, which is how the rose appears to me, exists. You may ask whether the rose exists and whether it is red or pink ; and in answering this question account must be taken of how it appears under different conditions and to different people. Although modes of appearance are not existents, they are the material and the only material on which thinking can operate to discover the nature of existing things ; and it is an epistemological ideal that if we were to discover completely the nature of existing things, there would be nothing left in the modes of appearance which would not entirely harmonise with our system of knowledge and find its explanation there.

§4.

On Prof. Broad's theory, *sensa* are entities which cannot be identified with material things or the surfaces or other parts of material things. The notion of *sensum* is necessary in that theory to solve the appearance-reality problem consisting in the fact that a penny, though round, may appear elliptical. The solution is "to change the subject." "What is round is the penny, what is elliptical is the *sensum*."* Having proceeded in this way, it would have been folly to get into a position in which a *sensum* itself might be said to appear to have a quality which in fact it did not have and thus be confronted again with the same problem. Mr. Ayer points this out.†

If we examine the way in which Prof. Moore and his disciples use the word *sense-datum* we shall see (i) that they attach a quite different meaning to the word *sense-datum* from that given to it by philosophers who use it in the way Prof. Broad uses *sensum* ; (ii) that the refutation in the previous section does not apply to them ; and (iii) that there is no reason, in the way they use the term, for finding any

*"Scientific Thought," p. 245.

†"Foundations of Empirical Knowledge," p. 69.

difficulty in the assertion that a sense-datum may appear to have qualities which it does not possess.

Let us consider the very careful account given by Prof. Moore of what a sense-datum is : " In order to point out to the reader what sort of things I mean by sense-data, I need only ask him to look at his own right hand. If he does this he will be able to pick out something (and unless he is seeing double, only one thing) with regard to which he will see that it is, at first sight, a natural view to take, that that thing is identical, not indeed with his whole right hand, but with that part of its surface which he is actually seeing, but will also (on a little reflection) be able to see that it is doubtful whether it can be identical with the part of the surface of his hand in question. Things *of the sort* (in a certain respect) of which this thing is, which he sees in looking at his hand, and with regard to which he can understand how some philosophers should have supposed it to be part of the surface of his hand which he is seeing, while others have supposed that it can't be, are what I mean by sense-data. I therefore define the term in such a way that it is an open question whether the sense-datum which I now see in looking at my hand and which is a sense-datum of my hand, is or is not identical with that part of its surface which I am now actually seeing."*

This is a much quoted passage and has provoked a great deal of criticism. I wish only to make one point on it. After indicating to what we are to direct our attention Prof. Moore explains that this object of our attention, thought by some to be a part of the surface of his hand, by others not to be so, is a specimen of what he means by a sense-datum. On this definition, of course, I believe in sense-data, and so does anyone who believes that things have surfaces ; and that parts of those surfaces on certain occasions appear to us. For on this statement of the theory of sense-data, the man who maintains that we see things themselves and the man who maintains that we do not see the things themselves but only some other entities which are

*"The Defence of Common Sense," in *Contemporary British Philosophy*, Second Series, p. 217.

in some way related to the things, both believe in sense-data. Instead of distinguishing between philosophers who believe in sense-data and philosophers who do not, we should have to distinguish between those who believe that sense-datum is just another word for a visible part of a surface, those who believe that the sense-datum, though it looks like the surface and is easily mistaken for it, is quite a different sort of thing, and those who, like Prof. Moore, are frankly puzzled as to which to think. This is very awkward ; and is made more awkward by the fact that it means insisting that great numbers of philosophers, including myself, believe in sense-data, when for the purpose of distinguishing our views from those of Dr. Broad and similar views we are compelled to assert that we do not believe in sense-data.* If it is said that the term is neutral, I think the answer must be that Prof. Moore tries to use it in a neutral way but does not completely succeed. An example of the un-neutral character of the term as used by Prof. Moore is afforded by the discussion of sense-datum in "Some Judgements of Perception." He is discussing the judgement "This is an inkstand," and says : ". . . sense-data are the sort of things *about* which such judgements as these always seem to be made—the sort of things which seem to be the real or ultimate subjects of all such judgements."† He goes on to say a little later : "If there be a thing which is this inkstand at all, it is certainly *only* known to me as *the* thing which stands in a certain relation to this sense-datum."‡ If this is meant merely to convey that the whole surface is never visible at one moment, it is obviously true. If it is meant to convey that the whole inkstand is in no way presented in perception, it seems to me erroneous, for even when I am looking at the front of it I have some kind of awareness of the back of it. Further, by

*As has already been pointed out, Prof. Broad uses the term "sensus" not sense-datum for his peculiar entities. So far as I can see he uses the words "sensible appearance" and not "sense-datum" as a neutral word when required. If a neutral word is necessary this is certainly the nearest approach ; but it seems to fall short of being really neutral, so much so that it suggests the clue to what, in my opinion, is the correct theory of perception

†"Philosophical Studies," pp. 231-2.

‡"Philosophical Studies," p. 234.

walking around it I can have several different views of it, and it does not seem to me to be any one of these which is the subject of my judgement.

The subject of my judgement seems to me not to be a sense-datum, even taken as a part of the surface, but the whole inkstand, which, though not perceived in its entirety, is presented as a whole that is more than my perception reports it to be.

In replying to his critics Prof. Moore attempted to make his position clearer by the following statement: "I think I have always used, and intended to use, 'sense-datum' in such a sense that the mere fact that an object is *directly apprehended* is a *sufficient* condition for saying that it is a sense-datum."* This statement makes clear that, as Prof. Moore uses the term *sense-datum*, it does not denote a special kind of existent but a relation which, so far as we can tell, any kind of existent might have to a perceiving mind. Whether the relation of direct apprehension is consistent with the object directly apprehended appearing to be other than it is, as Prof. Moore on other occasions holds to be possible, I cannot say but I do not think the possibility can be ruled out. It is important for the following reason: The term sense-datum, though intended to be neutral,† is in fact very plainly marked with the scars of combat. As a technical term, it is the index of a philosophy eager to assert that in sense experience there is an object which is given. It is an attempt both to stop the rot of Cartesian doubt and to meet the idealist contention that all perception involves inference, with its corollary that if we seek a datum in sub-perceptual sensation, we find a state where the distinction between the ego and its object vanishes. Now, if the significance of the *datum* in the term were merely to insist that in sense-experience things *appear* to us to be possessed of certain qualities, then the term would be genuinely neutral, but neither Descartes nor the Idealists would have

*"The Philosophy of C. E. Moore," p. 649.

†H. H. Price, "Perception," p. 19. ". . . the term sense-datum is meant to be a neutral term. The use of it does not imply the acceptance of any particular theory."

been answered. If, on the other hand, the *datum* signifies that in sense experience I am immediately informed of the existence of certain things and of the characteristics they possess, without any possibility of being mistaken, then Descartes and the Idealists are answered, but the term is not neutral and, if our argument is correct, the implied theory is wrong.

§5.

Mr Ayer's view* that the theory of sense-data is not a theory at all but simply an alternative language for speaking about such situations such as "I am perceiving a brown carpet which looks yellow to me" or "I am seeing rats which are not really there" need not detain us long. It is in sharp contrast to the use of the term sense-datum by Prof. Broad and those who follow him. The great merit of that use, we are told, is that the term sense-datum "names an element not hitherto named."† According to Mr. Ayer we can name everything necessary by the use of ordinary language as in the sentences quoted above. The advantage of the sense-datum language resides, as he tells us, in the fact that "it makes it possible for us to say that something real is being experienced even in cases where our perceptions are delusive."‡ This is puzzling. The sense-datum language would be a most misleading translation of our ordinary language if it resulted in our saying that the drunkard's pink rats were real, as this is precisely what the ordinary way of stating the matter denies. If what it states is that there really do appear to the drunkard to be pink rats, then it states the matter no better than ordinary language. In view of the doubt as to which, if either, of these two things it is supposed to assist us in saying, it seems to be decidedly inferior to ordinary language.

It is worth pointing out that, if you are inventing or using

*"The Foundations of Empirical Knowledge," Ch. II.

†Helen M. Smith: "Is there a problem about sense data?" *Ar. Soc. Supp.* vol. XV (1936) p. 84.

‡A. J. Ayer: "Foundations of Empirical Knowledge," p. 69.

a technical language to speak about facts for which provision is made in the ordinary language, you are apt to be seriously misled by it unless you guide its usage carefully by constant checking with ordinary forms of expression. So far from making one's task easier, it makes it far more difficult. For that reason, in suggesting briefly an alternative to the sense-datum theory, I shall use ordinary language though, if I were more capable, I have no doubt that I could state what I have to say using the word sense-datum suitably defined.

§6.

I now propose to state briefly the lines of an alternative account to the sensum theory. The account is quite simple and is implicit in the foregoing discussion. I can claim no great originality for it as it is substantially the theory put forward by Prof. Dawes Hicks* and called by Prof. Broad the Multiple Relation Theory of Appearance. I can claim only that I arrived at it by a somewhat different line of thought and for that reason my statement of it may have some interest. I propose to call it simply the theory of appearing. I hope to show that it is the theory implicit in common sense and that it can be defended against the more obvious objections.

We saw that the sensum theory was led into difficulties by concluding from the propositions (i) I see the rose, (ii) The rose appears pink to me, and (iii) The rose is red, to a proposition (iv) I see a pink sensum. To attain consistency it was necessary to distinguish between the meaning which the word *see* has in proposition (i) and that which it has in proposition (iv). It is obvious, however, when we reflect, that propositions such as (i) must be incomplete versions of propositions such as (ii), e.g., "I see the rose as pink" is the expanded form of the proposition (i), which says the same thing as proposition (ii), but begins with me and proceeds to the rose, instead of beginning with the rose and

*In his "Critical Realism."

proceeding to me. It is evident, further, if this is so, that *see* must have the same sense but in the reverse direction, as *appears*.

The account I put forward, then, is that objects themselves appear to us in sense-perception ; that they in general appear in sense-perception to have those qualities which they in fact have ; that where they appear to have qualities which they do not in fact have, these instances are more properly regarded as their failing in differing degrees to appear to have the properties they do have, such failure being accounted for by the conditions under which they are perceived. We must be quite bold at this point and admit at once that on this account of the matter a thing can possess a certain quality and at the same time appear to some one to possess another quality, which it could not actually possess in conjunction with the former quality. Let us be quite clear about what we are saying. When I see a circular penny as elliptical I am seeing the circular surface of the penny, not some elliptical substitute. This circular surface, it is true, appears elliptical to me, but that fact has no tendency to show that I am not directly aware of the circular surface. Aeneas was none the less in the presence of his mother Venus though she concealed from him the full glory of her godhead.

It is clear that, on this theory, perception has a much closer resemblance to thinking than would be allowed by the sensum theorists. For (i) it may have a content more or less false to the real, as thought may ; and (ii) this content does not exist independent of the act of perceiving any more than the content of a false proposition.* The chief objection to this contention is stated by Prof. Broad as follows : " It is very hard to understand how we could seem to ourselves to *see* the property of bentness exhibited in a concrete instance, if in fact *nothing* was present to our minds that possessed that property."† I can see no great difficulty in

*It is a salutary reflection in this connection that the spiritual home of the sensum at one time opened its gates wide to an even more peculiar entity, the proposition.

†"Scientific Thought," p. 241.

this, and we have seen how the attempt to escape from the imagined difficulty leads to difficulties. Fourteen years later Prof. Broad himself was not so sure for he says : " Now one may admit that a certain particular might seem to have a characteristic which differs from and is incompatible with the characteristic which it does have. But I find it almost incredible that one particular extended patch should seem to be two particular extended patches at a distance apart from each other."* Prof. Price finds the same difficulty, for he says : " It is not really sense to say ' To me the candle appears double. . . 'doubler' is not really a predicate at all."†

Seven years have passed since Prof. Broad wrote the latter of his two quoted statements so it may be that he now finds the assertion more credible. I certainly find nothing incredible in it. No doubt it is impossible for one candle to *be* two candles but there seems no reason why it should not appear to be any number of things. Finally, hallucinations and delusions need present no insuperable difficulties. There appeared to Lady Macbeth to be a dagger but there was no dagger in fact. Something appeared to be a dagger, and there are certainly problems concerning exactly what it is in such circumstances appears to be possessed of qualities which it does not possess. It is easy of course to object that an illusory dagger is not just nothing. The answer is neither " Yes, it is " nor " No, it isn't," but " An illusory dagger is a misleading expression if used to describe an element in the situation." It is misleading also in some degree to say that there exists " a dagger-like appearance," though we need not be misled by such a use of the word *appearance* if we are careful. Strictly speaking, however, there are no such things as appearances. To suppose that there are would be like supposing that because Mr. X put in an appearance, there must have been something over and above Mr. X which he was kind enough to put in. " Mr. X appeared " : that

*" Mind and its Place in Nature," p. 188.

†" Perception," pp. 62-3.

is the proper mode of expression if we are to avoid difficulties.*

An existent must be determinate and we saw that what are alleged to be existents and called sense-data could not meet this demand. To give rise to similar difficulties by speaking of appearances, thereby seeming to condone treating the modes in which things appear as existents, would be most inappropriate. That a thing, though wholly determinate, should fail to reveal its full determinate character to a single *coup d'oeil* is surely to be expected and our theory derives support from the fact that objects do not always appear in their fully determinate nature.

There is another point about our account of the matter. It allows that it is *possible* for certain people at certain times to become acquainted through perception with things as they are, not merely as they appear to be. This can be seen best as follows. The word *sense-datum* was substituted for the word *appearance* to emphasise that there is an indubitable element in sense experience, in contrast with the use of the term *appearance* by philosophers who denied the existence of any such given, and who used the contrast between appearance and reality to grind a metaphysical axe of their own. But, as was pointed out by Prof. Moore, the term was often used with the connotation "not a physical reality." If this connotation is accepted, it follows that, however extensive our acquaintance with sense-data, we are no whit nearer to becoming acquainted with physical objects, and it is even difficult to see how we can know *about* these latter. This is the "great barrier" objection to the theory as held by Prof. Broad and his followers. Even for those who avoid putting into the term *sense-datum* this unwarrantable connotation the term is apt to give rise to unnecessary difficulties. For example, Mr. Wisdom,

*Cf. the judicious remark of Prof. Dawes Hicks: "When, in ordinary language, we speak of the objective constituent of a perceptual situation as being the "appearance of" a physical object we mean not that it is the appearance which appears but that it is the physical object which appears." ("Critical Realism," p. 55). Even so, it is better to avoid the noun altogether, or at least always to test out the validity of its use by mentally translating into the verb.

more careful than most philosophers not to be misled by the term, writes : " I should agree that it is unplausible to say that, although when I see a thing in bad light my corresponding sense-datum is not identical with the observed surface of the thing, nevertheless, when the light changes, the corresponding sense-datum which I then obtain is identical with the observed surface, I cannot say why I find this unplausible, but I do. I find such a discontinuity, such a popping in and out of the material world on so slight a provocation, most objectionable."* If we are content to talk in terms of appearance or, better still, of things appearing, we shall not have pseudo-problems of this kind. We need have no heart-burning about the following statement : " Although when I see a thing in bad light the surface does not appear to me in every respect as it really is, nevertheless, when the light is adequate, it does." The reason we are now talking better sense is that the language of appearance permits us to maintain (*a*) that a thing can not only appear what it is not, but what it is : (*b*) that a thing's appearing what it is not is best understood as a deviation from its appearing what it is. A terminology which purports to be neutral and yet makes these propositions sound absurd has prejudged the issue in a most unfortunate manner.†

On the theory outlined it is easy to explain how we can come to know about material objects for in all our perception we are perceiving material objects even though we are not always completely successful in perceiving them exactly as they are. On the sensum theory, as we have seen, it is difficult to explain why knowledge of *sensa* should contribute towards knowledge of material things ; how we could ever have been led to the belief in material things ; and, still less, how we could justify the belief.

Finally, the account of the matter I have given is, I think, remarkably close to common sense. As Prof. Broad claims

*" Problems of Mind and Matter," p. 156.

†In fairness to Mr. Wisdom it must be pointed out that immediately after making the statement quoted, he goes on to say something which, if I understand it rightly, is very like what I have said except that (*a*) he calls that which appears a sense-datum and (*b*) identifies it with an object's surface.

that this type of theory departs as widely from common sense as the sensum theory this claim needs to be defended. He argues that, as commonly used, a statement such as "I see a table" involves the unexpressed theory that there is a situation involving two constituents, myself and the table, related by a relation of seeing, a relation which proceeds from me to the table. This theory, ascribed to common sense, Prof. Broad calls naïve realism.* Now it is only plausible to maintain that this theory is held by the ordinary man if carefully selected perceptual statements concerning objects at close range are considered. If we regard the whole range of perceptual situations the common sense belief is quite different. This belief involves that in perceptual situations objects reveal more or less of their nature to us ; and common sense would find no difficulty in admitting that there are cases where very little of the nature of the object of perception is revealed. For example, statements of the following type are a commonplace : "I can just see something, but I cannot make out what it is," "I think I can see something there but I cannot be sure," "It looks like a house, but it may be just an outcrop of rock." Instances could be multiplied indefinitely. Common sense would not scruple to admit that objects do not always have the qualities which they seem to have when seen, heard, tasted, touched or smelt. It accepts without flinching that the hills which look purple in the distance are really green. It is indeed a platitude enshrined in proverbial literature that "things are seldom what they seem."

I draw attention to these elementary facts, in the first place, to point out that the only naïveté about naïve realism is that philosophers should have thought the ordinary man believed it. More important, however, is that these facts show the common sense view not to involve belief in a simple two-termed relation between me and the things I perceive, in which no possibility of illusion can arise, but a

*"Naïve Realism . . . is the explicit formulation of the belief which forms an *essential part* of the perceptual situation as such." "The Mind and Its Place in Nature," p. 243.

relation in which there is the possibility of the object's nature being revealed to a greater or less degree. It is true, of course, that the plain man no less than the philosopher sometimes puts as the object of *see* not the material thing but the *how it appears* as when, looking into the distance, one says "I can see a purple haze ; it may be mountains or cloud." No violence is done to his language if it is rewritten "I see something as purple and hazy" or "There is something which appears purple and hazy." It is the lack of sufficient information to establish the nature of the object appearing which leads to the varying form of statement.

In concluding, I do not wish to suggest that no problems beset the theory of appearing. For example the two cases of a thing's appearing double and of something appearing to be where there is no such thing, present the problem : Is the apparent expanse in these cases the actual surface of any object? If so, of what object? I must, however, defer the inquiry into this and other problems to a future occasion, when I can consider the affinities of this theory with the different but closely related theory of multiple inherence and at the same time discuss some of the points in Prof. Dawes Hicks' exposition with which I am not perfectly satisfied. Here I have only been able to indicate the possibility of such an account as an appendix to my main task which has been to criticise those theories which make the notion of sense-datum fundamental in their explanations of perception.