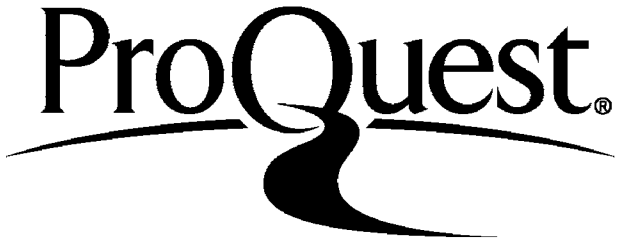
THE CAUSAL THEORY OF PERCEPTION

F. R. Pickering



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A N A L Y S I S

In my thesis I criticise the most important Causal Theories that have been advanced, and put forward a Causal Theory of my own.

In Chapter 1 I describe some of the theories that have been advanced, or criticised, as Causal Theories, and point out that they fall into several distinct types.

In Chapter 2 I criticise the sort of Causal Theory that includes the thesis that our knowledge of the physical world is in some sense inferential.

In Chapter 3 I argue against the sort of Causal Theory which involves the supposition that sense-data or their like are involved in perception.

In Chapter 4 I argue in favour of the sort of Causal Theory which contains the view that the perception of a physical object is a matter of the perceiver's being caused by it to have a sense-experience.

In Chapter 5 I argue that the experiential element in perception is not a matter of the perceiver's acquiring or tending to acquire a belief.

In Chapter 6 I inquire whether perception must involve the having of a sense-experience which in some sense represents the perceived object, and specify the conditions which the perceptual experience must fulfil. I introduce the expression "have a good representation" in terms of one sense of "seem" and its cognates.

In Chapter 7 I conclude that representation enters into perception insofar as the perceived object must bring about the perceiver's sense-experience in a way which I describe as "productive of good representations". I advance my own Causal Theory of Perception, to which this contention is central.

In Chapter 8 I support my theory by considering the perception of certain sorts of physical objects that may appear problematical and have been unduly neglected by philosophers in the past.

CHAPTER ONE: THE CAUSAL THEORISTS AND THEIR CRITICS

SECTION I. The notion of the Causal Theory of Perception

My title is "The Causal Theory of Perception". This is satisfactory insofar as it brings to mind the issues I intend to discuss, but in another way it may be misleading. Philosophers have advanced their views, calling them "The Causal Theory of Perception", and other philosophers have opposed certain doctrines again under the heading "The Causal Theory of Perception". The implication is that there is a constant body of doctrine concerning perception which has been held by all those who have called themselves or been called "causal theorists", and that it is this that is being criticised in the works of the professed opponents of the Causal Theory of Perception.

What I want to do now is to consider whether this is so: whether philosophers who are known as causal theorists have advanced broadly the same doctrines, and whether the picture its critics have of the Causal Theory remains constant from one to another. The importance of asking these questions is obvious. For if we find that the Causal Theory has several varieties, criticisms that are valid against one variety may have no force against another; one variety may be correct, even though the others are wrong. I will begin by studying the meaning attached to the expression "The Causal Theory of Perception" by those who criticise a doctrine to which they give that name.

SECTION 2. Critics of the Causal Theory of Perception

H. H. Price devotes a chapter of his book "Perception" to a doctrine he calls "The Causal Theory". He makes the sense he attaches to this expression very clear. On p.66 he says that the causal theory holds: "(1) that in the case of all sense-data (not merely visual and tactual) "belonging to" simply means "being caused by", so that "M is present to my senses" will be equivalent to "M causes a sense-datum with which I am acquainted"; (2) that perceptual consciousness is fundamentally an inference from effect to cause". To understand this account one has to understand the terms of art Price uses.

First, "sense-datum". Price defines a sense-datum as an entity of the sort that, whenever we perceive physical objects, we cannot doubt to exist and are "directly present to our consciousness".(p.3). As to "belonging to" and "being present to my senses", Price offers the following words of introduction (p.23 f.): after declaring that there is a sense of "perceive" in which it is not possible to perceive what does not exist, he writes: "In this sense "I perceive a candle" means (1) I sense a sense-datum, (2) this sense-datum is related to a candle in a peculiar and intimate manner; (3) there is no other thing to which this sense-datum is related in that manner . . . We shall describe this as "having a material thing present to one's senses". " Price also says on p.25: "We need a name for the relation subsisting between the sense-datum and the material thing when the material thing is present to the senses of the being who is sensing the sense-datum. For the present we shall follow Professor Moore in calling it the relation of "belonging to"."

The way the term "having a material thing present to one's

senses" is introduced is open to objection, as condition (3) seems to be otiose, as Price's attempts to state the Causal Theory in Ch.4 of "Perception" show. For it is made quite plain there that for a relation to be a candidate for the rôle of the peculiar and intimate one which exists between sense-datum and perceived object it is necessary that a sense-datum can stand in that relation to only one physical object. We may also note that Price cannot at the start of his work further characterize "belonging to" than as a peculiar and intimate relation. Perhaps the main aim of his work is to give a full and adequate account of "belonging to".

Finally, there is the term "perceptual consciousness". Price first declares that sensing a sense-datum is not a sufficient condition of holding a belief about a physical object - some further mental process is needed "by which the subjects of such beliefs are brought before the mind". This process, he declares, since Reid's time, has often been called "perceiving". This mental process, which is non-sensuous and can be true or false, Price calls "perceptual consciousness". (pp.21-3) Price's own view of it is that, taken in isolation, a single act of perceptual consciousness is like what Cook Wilson called "being under the impression that " (p.140) I think there is a real difficulty for Price here: for perceptual consciousness is at once thought of as a mere bringing before the mind of matter to be judged about, and if it was this it could scarcely be described as being true or false, and at the same time is described as if it were a form of belief, albeit uncritical belief. But if it is a form of belief, how can it do the job it is introduced as doing - bringing the

subject of belief before the mind, before the formation of the belief? Price struggles with this problem in ch.6, but does not solve it.

If we replace Price's terms by ordinary ones, we can describe his notion of the Causal Theory. For him, the Causal Theory is the theory that holds (1) that "P perceives M" (where M is a material object) means "M in a peculiar and intimate way causes P to have a sense-datum", (2) that the beliefs about physical objects we arrive at whilst perceiving are reached by inference. So, according to Price, the Causal Theory is a two-headed doctrine involving both the analysis of the perception of material objects in terms of their causing the perceiver to have a sense-datum and also the view that our knowledge about the physical world is arrived at by inference from knowledge about our sense-data.

Compare this with the statements of a philosopher who makes frequent mention of a view he calls "The Causal Theory", and has many obligations to Price and his work on perception - A. J. Ayer. Ayer gives different accounts of the nature of the Causal Theory. On pp.171-2 of "The Foundations of Empirical Knowledge" he writes: "The question that will be raised is how, if material things . . . are not directly given, one can ever acquire any knowledge of them . . .. The usual answer has been that one can justify beliefs about the existence and character of things outside sense-data by means of a causal argument, and it is through accepting this answer that philosophers come to hold what is known as a causal theory of perception." Ayer says that the Causal Theory is concerned with linguistic rather than factual considerations. He writes (p.172): "On this showing, its purpose is to elucidate the meaning of sentences of the form "this is an x" and "A is

perceptually conscious of x", where A stands for a person and x for a material thing." (It is to be noted that he uses the term "x" in a confused and ambiguous way.) He supposes the causal theorist to hold that the former sentence means "This is caused by an x" (or something similar). (So one could be perceptually conscious of x without x existing, if the inference were false.) The causal theorist, according to Ayer, is led to these views because he believes we can never immediately observe, be directly aware of, material things. So that when I say, for instance, "This is an inkstand" the "this" refers to what is directly given, whilst the inkstand mentioned is a material thing. Thus, if such statements are ever to be true, they cannot be statements of identity, as they appear to be at first sight. The most reasonable suggestion is that they are statements of causal relation. This is the sort of reasoning the causal theorist is supposed to go through to reach the conclusion that "This is an inkstand" means "This is caused by an inkstand". I have brought in the inkstand example, which Ayer does not mention, because it is used by G. E. Moore in the discussion that clearly gives rise to Ayer's views here. ("Some Judgements of Perception" in PAS 1918-19). There Moore argues that one who judges "This is an inkstand" when he is perceiving one, cannot be judging that the thing he indicates by the "this" is identical with an inkstand. For it is the object of direct acquaintance, and on philosophical analysis we realise that this is never identical with a physical object. So the statement

"This is an inkstand" must have a hidden complexity, in explaining which Moore is characteristically undogmatic. Ayer is slipshod in describing his proposed causal theory, for he fails to mention that the judgments that are being analysed are judgments of perception, unless he really means to attribute to his causal theorist the views that all statements of the form "This is an x" (where an x is a material object) are to be analysed as "This is caused by an x". For clearly one can be justified in making such statements when one does not perceive the physical object in question. And in these cases the person making the statement is not having a sense-datum causally related to the physical object about which the judgment is being made. Take, for instance, the case of a blind man who turns towards a picture on his wall and says "This is a Matisse". He makes good sense, even though we don't believe he perceives the picture. But on the proposed analysis, he statement will have to be either false or meaningless, according to whether he is supposed to be referring to some sense-datum not involved in the perception of the picture, or to be failing to refer to anything at all. In this case, where there is no question of there being anything caused by the picture to which the man could refer by his "this", and in similar cases, the proposed analysis would be a non-starter. But I suppose Ayer means his causal theory to be a theory about the analysis of perceptual judgments.

Even so, it seems a remarkably unattractive theory. For even if we grant that perceiving a physical object involves having a sense-datum that is distinct from the physical object, why should we accept that the "This" in perceptual judgments like

"This is an inkstand" refers to the sense-datum? It is surely much more natural to take it to refer to the physical object. In all such cases, we could have replaced the "This" by "This physical object" without significantly altering the sense of the statement. Or we could have pointed to the inkstand instead of saying "This is an inkstand" and said "An inkstand", and in doing so conveyed just the same information. And in such a case there would be no doubt that what was pointed at was the physical object itself, not a sense-datum. I believe, then, that Moore, in his attempt to clarify the notion of a sense-datum, only succeeded in introducing a new problem for himself when he insisted these judgments of perception had a hidden complexity. However, it may be said that if Moore believed that material objects were never perceived (on the grounds that they were never the objects of direct acquaintance) he was for this reason forced to accept that these judgments had such a hidden complexity. For it might be asked how the "this" in such judgments could ever find reference if it were supposed always to refer to imperceptible things. It might be said that in my example of the blind man referring to the Matisse the "this" only succeeds in making reference because the hearer can perceive the picture even though the speaker cannot. However this may be, Moore's analysis of judgments of perception is very unattractive, whilst Ayer's version of the Causal Theory (with which he himself does not agree, of course) is equally implausible.

Ayer's causal theory, as presented in "The Foundations of Empirical Knowledge" is quite different from Price's. For it involves a doctrine about the analysis of perceptual judgments of the form "This is an x", which Price's does not. Price's theory advances a causal account of perceiving physical objects, which

Ayer's does not. In common, they have the contention that perceptual consciousness is inferential. But Ayer's use of the expression "The Causal Theory" in this book does not tally either with his use of it in his later work "The Problem of Knowledge". The sense he attaches to the expression there may be grasped from the following quotations (pp.113-4, Penguin): "On this view, (i.e. the Causal Theory of Perception) though we perceive physical objects, we do not perceive them in their natural states: they never appear in public unmade-up . . .. We can then work out what the object must be like in order to have, in such conditions, the effects on us that it does. It turns out to be just what science tells us that it is." Here, it is plain, Ayer is using the expression "Causal Theory" to mean the theory that physical objects possess only a certain number of the qualities they seem to have (the primary qualities). But then Ayer goes on to reject the theory he calles the Causal Theory of Perception, for a very strange reason (p.115): "It fails for the reason that however strong the evidence for the existence of these scientific entities may be, our belief in the existence of such physical objects as stones and trees and chairs and tables does not depend on it. We could give up all of current physical theory without being logically committed to denying the existence of things of these familiar sorts . . .. And from this it follows that, whatever may be said in defence of the causal theory, it cannot be regarded as furnishing an analysis of our perceptual judgments." The theory that Ayer is attacking here (as the Causal Theory) seems to be one that states that our everyday statements about chairs, tables, etc., are equivalent to statements using the terms employed in current

physical theory. The scientific entities, which are referred to in current physical theory, are clearly meant to be atoms and electrons and the like. So here Ayer is using the term "Causal Theory" to refer to the (preposterous) one that our everyday statements about physical objects are equivalent in meaning to statements about atoms, electrons, etc. I conclude that Ayer does not give a fixed sense to the expression "The Causal Theory of Perception" in "The Problem of Knowledge".

A more recent critic of a theory he calls "causal" is Don Locke, in his book "Perception and our Knowledge of the External World". On p.114 he writes: "The Causal Theory is the theory that we never perceive physical objects directly, but only indirectly". He glosses this by saying : "We perceive them only in the sense that we perceive their effects, the percepts they produce in our minds." We may note that exactly this theory is mentioned and criticised by R. J. Hirst in his book "The Problems of Perception" (see, for instance, p.23 and p.173). But he calls it "The Representative Theory of Perception".

So much then for the critics of theories that they severally call "causal". It is plain that the theories criticised under the heading of "Causal Theory" vary to an extent from person to person. Ayer, in particular, has his own idiosyncratic conceptions - varying from place to place - of what the Causal Theory is. The other philosophers, however, agree in describing a theory as causal if it analyses a man's perception of a physical object in terms of its causing him to have an experience of a certain type: but they differ over the description of this type.

For D. Locke says it is the perception of a sense-datum or percept; for Price it is the sensing of a sense-datum, and for him sensing and perceiving are quite different phenomena. Price also makes a certain doctrine about human knowledge - that perceptual consciousness is inferential - an integral part of the Causal Theory. Ayer follows him, but Don Locke does not. They regard this view of perceptual consciousness, rather, as an unwanted and unattractive consequence of the Causal Theory of Perception.

SECTION 3. The Causal Theorists: Locke

Let us now consider the main doctrines advanced by those who are generally known as "causal theorists", and discover whether there is anything common to all of them. In the case of those who have actually called themselves "Causal Theorists" we can enquire into the meaning they attach to this expression.

The name most closely associated with that of the Causal Theory is John Locke's. He declares : "Our senses, conversant about particular sensible objects, do convey into the mind several distinct perceptions of things, according to the various ways wherein those objects do affect them; . . . This great source of most of the ideas we have . . . I call "sensation"." (Essay Concerning Human Understanding 11, 1, iii). In 11, 19, ii, he says that sensation is "the actual entrance of any idea into the understanding by the senses." The causal rôle that physical objects have is brought out clearly in Locke's discussion of secondary qualities. Such qualities are "nothing in the objects themselves but powers to produce various sensations in us by their primary qualities." (11, 8, x). In the next paragraph

Locke says: "The next thing to be considered is, how bodies produce ideas in us; and that is manifestly by impulse, the only way we can conceive bodies operate in".

What is Locke doing here? Is he telling us what the perception of physical objects is? Or is his view that we only perceive things in our own minds? The problem is complicated by the fact that Locke does not use "perceive" as most modern philosophers do, as the genus of which seeing, hearing, feeling, etc., are the species. By the term he means "the first faculty of our minds exercised about our ideas." (II, 9, i) What we want to know is what Locke thinks we see and hear - physical objects or sense-data. Now he often speaks of us as seeing and touching physical objects, but philosophers who hold that we don't do this often slip back into saying we do when they are not concentrating on the issue of whether we do or don't, so this is not conclusive evidence. If Locke were to say that his term "sensation" meant the same as "seeing" and "feeling", then we could class him as one of those who gives a causal analysis of the perception of physical objects (to use that term in its modern sense). But he nowhere explicitly states this, or equates the causal process he describes with what we call "seeing" or "feeling".

Locke's view of our knowledge of the existence of things other than God and ourselves is that "it is to be had only by sensation". (IV, 11, i). He goes on: "No particular man can know the existence of any other being, but only when it makes itself perceived by him." However, what we want from Locke is a description of the circumstances in which our assurance of the

existence of a physical object is rational. When in IV, 11, ii, Locke says: "It is the actual receiving of ideas from without that gives us notice of the existence of other things, and makes us know that something doth exist at that time without us which causes that idea in us", he is giving a description of the way our knowledge is brought about, but it is not clear exactly how he thinks we are justified in holding the belief that does indeed arise at such a time. A little later, however, describing his knowing that there is a piece of white paper in front of him when he sees it, he says: "Of this (that the paper exists) the greatest assurance I have, and to which my faculties can attain, is the testimony of my eyes, which are the proper and sole judges of the thing; whose testimony I have reason to rely on as so certain I can no more doubt . . . that I see white and black . . . than that I write or move my hand." Locke is here treating our senses as reliable witnesses, whose evidence we can trust. But this analogy is unhelpful. For though the principle "It is reasonable to believe that p if a reliable witness tells one that p" is eminently acceptable, it can only metaphorically be applied to the case where I know that this paper is white because I can see it. My eyes do not really tell me anything. Moreover, the testimony of a witness can be tested against the so-called "evidence of our senses", but by what touchstone is this evidence to be judged? Perhaps Locke, in speaking of the senses as reliable witnesses, is expressing in a metaphorical way the view that it is at least sometimes the case that my seeing X justifies me in believing that X exists. But Locke nowhere states this view clearly and explicitly, and would seem to be

dissatisfied with such a short answer to the sceptic. For he goes on to produce four very poor arguments to show that physical objects exist.

It will be noted, however, that Locke nowhere argues that all our beliefs about the physical world are inferential, or that a man must have reasons he can give to support a particular belief of this sort if he is to be said to know that it is true. He is quite convinced that we do have knowledge of the physical world, but does not succeed in giving a convincing explanation of its foundations.

SECTION 4. Bertrand Russell

To give such an explanation is one of Russell's most enduring intentions, and he spends more time on this question than on discussing the nature of perception. In "The Problems of Philosophy" (1912) he tries to show that our knowledge about physical objects is not as secure as we uncritically take it to be. Speaking of the table in front of him, he says (HUL Edition p.11): "It becomes evident that the real table, if there is one, is not the same as what we immediately experience by sight or touch or hearing. The real table . . . is not immediately known to us at all, but must be an inference from what is immediately known." What is "immediately known in sensation" is called by Russell a "sense-datum". (p. 12) When in Ch.2 Russell is led to consider what reason we can have, knowing about sense-data, to believe that there are physical objects, the reason he finds is that if we suppose physical objects exist and cause our sense-data, we can find simpler explanations for the course of our sense-data.

The same approach is taken in "The Analysis of Matter" (1927). Here he writes (p. 181): "I have come to regard these things (physical objects) as inferences. I do not mean that I inferred them formerly, or that other people do so now. I fully concede that I did not infer them. But now, as the result of an argument, I have become unable to accept the knowledge of them as valid knowledge, except in so far as it can be inferred from such knowledge as I still consider epistemologically primitive". This knowledge is knowledge about sense-data, and we get our knowledge of physical objects by inferring the existence of causes (physical objects) from the existence of effects (sense-data). The Causal Theory that embodies this view, says Russell, has as its main ground "the desire to believe in simple causal laws" (p. 200).

A rather different presentation, but with the same emphasis on inference, is found in "Human Knowledge" (1948). On p. 181 Russell makes a distinction between beliefs that arise spontaneously and beliefs for which no further reason can be given. The latter class, which he calls "data", are "the indispensable minimum of premises for our knowledge of matters of fact". And on p. 185 he declares "Only sensations and memories are truly data for our knowledge of the external world." To infer the existence of physical objects from that of our percepts, we need some general principles. Russell sets out to formulate these in the last part of his book. Knowing these, and knowing certain truths about our percepts, we can infer the truths of science with validity. As to our knowledge of these principles, he holds that it cannot be based upon experience, though all their verifiable consequences

are such as experience will confirm". (p. 527)

Russell is quite sure that inference is inextricably bound up with our knowledge of the external world. It is a common theme throughout his epistemological writings. In the first book mentioned, he seems to suggest that we do in fact infer every proposition we know about physical objects, it being understood that we know a fair number; in all the books the view is that if we are to know any such propositions we must have inferred them validly from other propositions; but in the later books Russell would seem to be calling into doubt our belief that we and others know many things about the physical world, not accepting it as in "The Problems of Philosophy".

But what is Russell's view of the perception of physical objects? Does he believe we ever do perceive them? We will remember that on p\of "The Problems of Philosophy" he writes that the real table is not the same as what we "immediately experience by sight or touch or hearing". Now if we take, for example, "experience by sight" to mean "see", we find that Russell is saying we don't see the table - or not immediately. Some philosophers have drawn a distinction between mediate and immediate perception (e.g. Armstrong, Smythies, D. Locke). But Russell doesn't. And he gives us no help in understanding what he means by "immediately experience". So this passage does not assist us in our enquiry.

In "The Analysis of Matter". however, Russell writes (p. 197) "Common sense holds - though not very explicitly - that perception reveals external objects to us directly: when we "see the sun" it is the sun that we see. Science holds that, when we "see the sun" there is a process, starting from the sun . . . finally producing

the event which we call "seeing the sun"." There is nothing controversial about this. But there is when Russell continues by saying that the facts of science entail that our knowledge of the sun must be inferential; that our direct knowledge is of an event which is in some sense "in us". More to the point, though, does Russell think it follows from the fact (if fact it be) that we have no "direct knowledge" of the sun that we don't see it in the situation we describe as "seeing the sun"? I think he probably does. I think the notion of "direct knowledge" he uses is the notion of an awareness of things, an awareness of the sort we have in perception. This is certainly the impression given by the passage in "The Problems of Philosophy" that I quoted, where the term "immediate knowledge" crops up. (on p. 11 of "The Problems of Philosophy"). I believe that the view being put forward in this passage of "The Analysis of Matter" is that we don't perceive physical objects; the belief that we do is false, and its falsity is revealed by the physicist.

This view seems to be reproduced in "Human Knowledge", in the discussion of perception of pp. 218-225. Talking there of "percepts", Russell says that a percept is "what happens when, in common-sense terms, I see something or hear something." In his view, the common-sense opinion is that, e.g. on certain occasions which are "seeing the sun", "the kind of event called "seeing the sun" consists in a relation between me and this object, and when this relation occurs I am "perceiving" the object. " But then, Russell says, physics intervenes, and "we cannot therefore identify the physical sun with what we see; nevertheless what we see is our chief reason for believing in the physical sun." This seems clear enough: Russell is saying that what normal people take to

be a transaction between themselves and the sun, and so call "seeing the sun", is in fact the occurrence of a percept, which does not involve a transaction with the sun. So we do not perceive physical objects.

However, Russell goes on, whilst discussing the variety of ways in which the objects we say we perceive are related to our percepts, to write such things as: "The other senses do not give us the same kind of perception of distant objects or of intermediate links in causal chains (as vision)", and "It is clear that the relation of a percept to the physical object which is supposed to be perceived is vague, approximate, and somewhat indefinite. There is no precise sense in which we can be said to perceive physical objects."

And there is more in this vein in his "Reply to My Critics" in "The Philosophy of Bertrand Russell" (1944). On p. 702 he defends a theory he calls "The causal theory of perception". And on p. 703 he writes: "It is obviously possible to produce, by artificial means, an occurrence which will seem to the percipient to be a case of "seeing the sun", though in fact it is not so. Unless a special kind of causal connection with the sun exists, we are not "seeing the sun", even though our experience may be indistinguishable from one in which we are "seeing the sun"."

We may thus conclude that Russell throughout his writings on perception proclaims his allegiance to a theory he calls "The Causal Theory". But in expounding this theory he seems to move uncertainly between two alternatives: one view, that we don't perceive physical objects, but the things we do perceive, sense-data, are caused by

physical objects. The other view is that physical objects are perceived and that it is a logically necessary condition of a man's perceiving a physical object that the object causes him to have an experience of a certain sort. Further, whichever view of perception he takes, Russell thinks that it leads us to the doctrine, which he gladly accepts, that all our knowledge about physical objects is in some sense inferential.

SECTION 5 C. D. Broad

Another writer who is spoken of as a causal theorist, and who sometimes calls himself by this title, is C. D. Broad. Indeed, in his early book "Perception, Physics, and Reality" (1914), he adopts what he calls "The Causal Theory", which he contrasts with "The Instrumental Theory". On p. 197 he writes: "We have seen that all the facts are capable of two interpretations, viz. the Instrumental one which holds that our organs and their detailed structure are instruments by which the mind perceives real things and their real qualities and characteristics; and the Causal one which holds that our organs and their internal structure are conditions of the perception by the mind of objects and distinctions in them, both of which, for aught we can tell, are mere appearances". The distinction between the Instrumental and Causal Theories, as they are here described, is a very fine one; for the instrumental theorist, in holding that our sense-organs are instruments by means of which we perceive, must hold that they are conditions of our perceiving the things we do, and so he has this view in common with the Causal Theorist. The only difference in their views is that the Causal Theorist takes an agnostic stand on the nature of

the objects of perception, whereas the Instrumentalist is a stalwart Realist.

But later on in the book, Broad represents the Causal Theory as holding that what is perceived is always an appearance, which is a phenomenon wholly produced by certain factors including the perceiver's brain, and exists no longer than it is perceived - and so cannot be a physical object. He writes on p. 204: "In the causal theory something X acts on the organ, the organ and the mind together produce a perception as a whole, i.e. something from which indeed an object can be analysed out, though there is no reason to think it can exist out of that whole called a perception. Such an object is an appearance in our sense of the word."

Broad realises that there is a problem facing the causal theorist: how can he justify his belief that the cause of each appearance resembles it, at least in respect of the primary qualities? In other words, if the causal theory is correct, how can we have knowledge of the physical world? The answer (given on p. 267) is as follows: "The further determination of the real world does not pretend to be anything more than hypothetical . . . In comparing the probability of any two alternative theories as to the further determination of the nature of the real causes of perception we need not consider anything but their respective success in explaining what we do perceive. And there is certainly no alternative theory of the nature of the real before the public at present that can claim to explain so many of the facts so well as the theory of science."

There is a similar treatment of the epistemological problem

in "Scientific Thought". On p. 268 he writes: "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 sensa. It is not reached by inference, and could not logically be justified by inference. On the other hand there is no possibility . . . of coordinating the facts without it."

Returning to Broad's view of perception, we must consider his "Object Theory" of sensible appearance, which is advanced for the first time in "Scientific Thought". This is described best on p. 239, as follows: "Whenever I truly judge that x appears to me to have the sensible quality q, what happens is that I am directly aware of a certain object y, which (a) does really have the quality q, and (b) stands in some peculiarly intimate relation, yet to be determined, to x." Broad later concludes that this relation is causal, and when the Object Theory has this stipulation that the relation is causal added to it, it becomes the "Critical Scientific Theory" described on p. 272f.

Now this theory of appearing seems to commit Broad to the view that for a man to perceive a physical object he must be caused by that object to have a sense-experience (in Broad's view this having of a sense-experience would be the sensing of a sensum). For there is surely a sense of the word "appear" - and it is the one Broad has been analysing - in which a thing's appearing somehow to me is nothing more or less than my perceiving it. O perceives M iff M appears somehow to O. So, if the notion of an object's appearing to a man is to be

analysed causally, so must the notion of a man's perceiving an object. And again, if Broad's view is that physical objects do appear to people, then he must agree that we sometimes perceive physical objects.

Now both in "Scientific Thought" and in "Mind and its Place in Nature" (1925), Broad takes it for granted that we perceive physical objects. But as to the causal analysis of perception, Broad never explicitly advances it. Indeed, what he says about perception contains no reference to the causal analysis. On p. 243 of "Scientific Thought" he mentions the "sensum theory of sensible appearance" (i.e. the "object" one) and says: "Closely connected with it is a theory about the perception of physical objects, and we may sum up the whole view under discussion as follows: Under certain conditions I have states of mind called sensations. These sensations have objects which are always concrete particular existents, like coloured hot patches . . .. Such objects are called sensa. The existence of such sensa . . . lead us to judge that a physical object exists and is present to our senses." Is this really meant to be a complete description of the perception of a physical object? It is hard to think so, as it is plainly Broad's view that in hallucination we sense sensa, and this sensing could be accompanied by a judgment that a physical object existed, but Broad would not want to say that this complex of events would be the perception of a physical object. But he says that he is presenting a theory about the perception of physical objects. And there is no mention of causation in this theory.

In "Mind and its Place in Nature" Broad analyses "perceptual

situations" which are described by sentences like "I am seeing a chair" and "I am hearing a bell". (p. 140f). On p. 151 Broad suggests that in every perceptual situation more is involved than the perceiver and a spatio-temporally extended particular - there is also the conviction that the particular is part of a physical object. If this were meant to be a complete description of the perception of a physical object, it would fall under the same criticism as the view in "Scientific Thought". (The examples Broad gives scotch the suspicion that Broad might be using "perception " in the sense which Price denotes by the expression "perceptual consciousness") But I cannot help thinking it is meant to be such a description. And again we may note that there is no mention of causation. Yet on p. 182 of "Mind and its Place in Nature" Broad reiterates the "Sensum" or "Object" theory of sensible appearance, which he goes on to accept, preferring it to two alternative theories. And on p. 183 he describes how the "Sensum" theory leads us to the "Critical Scientific Theory", if, that is, we wish to keep as near to the common-sense notion of physical objects as possible. And the "Critical Scientific Theory", as we have seen, is an analysis of appearing in causal terms, which therefore implies that perception must be analysed in causal terms, too.

I conclude that in the two later works Broad presents an analysis of what it is to perceive a physical object on the one hand and of what it is for a physical object to appear somehow to us on the other. The account given of each of these phenomena is remarkably constant from one work to the other, but the analysis of perception seems to be inconsistent with that of

appearing: for I have suggested that there are reasons for supposing a causal analysis of appearing demands to be complemented by a causal analysis of perceiving (p. 25 of this thesis); but Broad gives a causal analysis of appearing, whilst his account of perception makes no reference to causation. Both these analyses are incompatible with the view of perception expressed in "Perception, Physics, and Reality", where the object of perception is stated to be an appearance, which is produced in part by the action of a physical object on a man's sensory equipment.

SECTION 6. Contemporary writers.

If we wish to discuss what contemporary philosophers who call themselves causal theorists, or are so called by others, hold to be true about perception, we will do best if we begin with H. P. Grice, who has dealt with the subject carefully and in some detail in AS Supp. Vol. 1961. In his article "The Causal Theory of Perception" he asks 'what is to count as holding a causal theory of perception?" (This language suggests he is alive to the fact that there are many varieties of the causal theory.) In answer he writes (p. 121): "It may be held that the elucidation of the notion of perceiving a material object will include some reference to the role of the material object perceived in the causal ancestry of the perception (or of the sense-impression or sense-datum involved in the perception). This is central to what I regard as a standard version of the Causal Theory of Perception." Grice then tries to carry to completion the particular version of the Causal Theory that he

isolates. He attempts, by the addition of further conditions, to give an account of the perception of a physical object, starting from the condition that this cannot occur unless the object plays a part in causing the perceiver to have a sense-experience. The details of this account will be studied in a later chapter: what we should notice now is that though he proclaims himself a supporter of the Causal Theory Grice rejects the view that all our perceptual beliefs are inferences (p. 146f). Thus he does not agree with the account of the Causal Theory given by Price and Ayer, where this view is said to be integral to it.

A similar view to Grice's about the justification of our perceptual beliefs is taken by another philosopher who is naturally spoken of as a causal theorist. This is R. M. Chisholm, who in his book "Theory of Knowledge" (1966) suggests that the very fact that a man is in the state of thinking he perceives such-and-such a thing gives that man some reason to believe that he is perceiving a thing of that sort; and that in certain circumstances this reasoned belief can become rational conviction. Now in his book "Perceiving" (1957) Chisholm attempts to define "the simplest of the nonpropositional senses of "perceive"," and his definition of "S perceives x" involves the notion of causation, since for x to be perceived x has to be a "proper stimulus" of S, causing S to have an experience. What the "proper stimuli" of each sense are is specified by Chisholm in the language of physics and physiology. For instance, by "a proper visual stimulus of S" Chisholm means an object such that light transmitted from it stimulates a visual receptor of S, provided that

this light is not reflected after being transmitted from the object.

A further doctrine in "Perceiving" that should be noted is Chisholm's view that the inference from "x appears ϕ to S" to "There is something which is ϕ" is always fallacious - an example of what he calls the "Sense-datum Fallacy".

Scientists have always been fond of advancing "Causal Theories". A recent presentation is the Representative Theory in Smythies' "Analysis of Perception" (1956). Smythies says his task is "to give an account of the relation between our sensory experience and the physical and physiological processes of perception." (p. 1) He thinks the perception of objects must involve the sensing of sense-data, on grounds relating to hallucinations and the like. The mental and the physical are, he concludes, radically different in nature, so perception consists in a physical process starting from the perceived object and terminating in the perceiver's brain, plus a mental event in the perceiver (his sensing of a sense-datum), which is brought about by the brain state.

When he turns to face objections, he falls back on a distinction between direct and indirect observation. His theory does not result in the view that physical objects are unobservable. For though only sense-data are directly observed, physical objects are observed indirectly. And he gives an argument to show that we can have knowledge about what can only be observed indirectly.

A more philosophically sophisticated view of this type is to be found in Hirst's "The Problems of Perception" (1959). On

p. 307 he says in summarizing his theory: "Perceiving is a relation between person and public object in which a mode of active experience, perceptual consciousness, is caused in him by the stimulation of his sense organs by the object or by emanations from it". We need not go into the method he employs to avoid the problems attached to the traditional dualism of mind and body.

SECTION 7. Conclusions and programme for the rest of the thesis.

I set out in this chapter to discover whether the philosophers who are known as causal theorists have advanced broadly the same doctrines, and whether the picture its critics have of the causal theory remains constant from one to the other. Now it will have become clear that there is little in common between all the theories that have been advanced as causal theories or criticised as causal theories. They are all theories about perception, in which a prominent part is given to the concept of causation, but this seems to be about all they have in common.

What we can do, however, is distinguish various types of causal theories. I think we can separate out four main types, two of which can be divided usefully into sub-types. The first type of causal theory (A) is that of which the theories of Grice, Chisholm, and Smythies are examples. The distinctive feature of these theories is that in them a causal analysis is given of the perception of physical objects, but no account of the genesis or justification of our knowledge of these objects is integral to them. Broad's "Critical Scientific Theory" of

sensible appearance is another theory of this type.

The second type of causal theory (B) is that of which Broad's theory in "Perception, Physics, and Reality" is an example. This is the theory that sense-data or sensa or percepts are the only objects of perception, and that physical objects are known to us only as the causes of these: we are never perceptually acquainted with them. We noted that John Locke may have held this view, though we could not be sure.

The third type is the one of which the theory Price criticises in "Perception" is an example: it results from the addition to A of a further thesis, that our perceptual judgments are all inferential, and that all our knowledge of the physical world is therefore in some sense inferential. Let us call this thesis I, and the third type of theory AI.

The fourth type results from the conjunction of I with B. Let us call it BI. We can now say that Russell in the works I have discussed wavers between AI and BI. He most closely associates himself with AI in his "Reply". We should note that it is possible to hold B without I. Indeed, Braod, who favours B, is not attracted towards I. He prefers to think of the assumption of a physical world as a transcendental hypothesis which alone can enable us to make sense of our perceptual experiences.

These, then, are the four types of theory that have been advanced, and criticised, under the title of causal theories. In order to make the programme for the rest of my thesis clearer, I would also like to subdivide A and AI, according to whether the causal analysis of perception given involves reference to sense-data or the like. Chisholm's theory is of type A, but avoids all

reference to sense-data. Let us say it belongs to type A_1. Smythies' theory is of type A, but makes use of the notion of a sense-datum. Let us say it belongs to type A_2. Similarly, theories of type AI may be divided into theories of type A_1I and A_2I. Russell's theories of type AI clearly fall into type A_2I.

Having made these distinctions, I can briefly describe the programme of my thesis: it is, first, to see if the correct theory of perception falls into any of the above-mentioned types; and, second, if it appears that the correct theory of perception does fall into one of these types, to attempt to specify it more exactly, giving conditions separately necessary and jointly sufficient for perception. In this attempt, should it be made, I will strive to present my causal theory in the most attractive light possible, though not at the expense of a proper critical examination of the theory. But I shall take it as my task to be an advocate for the theory, rather than against it, if I am once satisfied that a theory of its type must be correct.

I shall proceed first to the examination of the thesis I. If I proves unacceptable, then no theory of types AI or BI can be acceptable (Ch. 2). I shall then discuss whether sense-data or the like can, and do, have any part to play in perception. If it appears they cannot, and do not, no theory of type A_2 or type B can be acceptable (Ch. 3). Then I will consider whether it is reasonable to suppose that it is in a theory of type A_1 that the correct account of perception is to be found (Ch. 4). It is as well that I should now say that it is my view that a theory of type A_I is correct. The remainder of my thesis will

be devoted to an attempt to give an adequate specification of this causal theory (Chs. 5 - 8).

CHAPTER TWO: THE THESIS THAT OUR KNOWLEDGE OF THE PHYSICAL WORLD IS INFERENTIAL.

SECTION 1. Introduction

I want now to begin my examination of The Causal Theory by considering a theory which inter alia contains the assertion that our knowledge of the physical world is in some sense inferential. Is such a theory bound to fail? The first point that will come immediately to our minds is that most of the writers we discussed as being causal theorists did not hold such a theory. It is not held by Locke; it is explicitly rejected by Broad, who writes: "The belief that our sensa are appearances of something more permanent and complex than themselves seems to be primitive, and to arise in us with the sensing of the sensa. It is not reached by inference, and could not logically be justified by inference." ("Scientific Thought", p 268). Neither Grice nor Chisholm accept it, Chisholm advancing a completely different view of the way we are justified in believing such propositions. (Theory of Knowledge, Ch. 3). Price, indeed, makes the point that "perceptual consciousness is fundamentally an inference from effect to cause" an integral part of what he calls "The Causal Theory" ("Perception", p 66), but only in the philosophy of Russell do we find this doctrine advanced as part of a causal theory.

However, such is the importance of Russell's work, I will discuss the thesis that all our knowledge of contingent truths about physical objects is inferential, to see whether a causal theory of which it is an essential part must fail because the

thesis leads to scepticism of the senses or some other insuperable difficulty. For I take it to be the case (as Russell himself does) that we do have some knowledge of contingent truths about physical objects. If some theory implies that we do not, then that theory is unacceptable. We may also note that a thesis similar to Russell's has been held by another distinguished philosopher, C. I. Lewis. He is not a causal theorist, or, rather, I find no evidence for his being one in his works, but he does hold the doctrine which I am now discussing. So it will be worthwhile to consider what Lewis says on the subject.

First, however, we must make it clear just what the doctrine is which Russell and Lewis hold, which I have described as "The view that all our knowledge of contingent propositions about physical objects is inferential." Do they mean to say that <u>as a matter of fact</u> all such knowledge is arrived at by inference, though it might be that it could be acquired in some other way? No. They believe, rather, that if I had not inferred that p ("p" being a contingent proposition about physical objects) it would be improper for me to be said to know that p. Unless I have inferred that p, and inferred it validly from other propositions that it is reasonable for me to hold, then it is not reasonable for me to hold that p, and if it is not reasonable for me to hold that p then I cannot know that p: such is their view. What we have to discuss, then, is the doctrine that if "p" is a contingent proposition about physical objects then a man cannot reasonably believe that p unless he has validly inferred that p, from other propositions that he reasonable believes.

Or, rather, something like this. For this is not an adequate expression of the Russell-Lewis position. We can see straight away

that the doctrine I have described is likely to lead to scepticism. For it may be said that amongst the premisses of any argument of which the valid conclusion is a physical object proposition there must be at least one physical object proposition. Thus, if in the argument of which p is the conclusion, q is this premiss, and I infer p from q and the other premisses, I only believe that p reasonably if I believe that q reasonably. But I can only believe that q reasonably if I have correctly inferred it from another physical object proposition which I believe reasonably. But I can only have performed a finite number of inferences in my life, and the earliest physical object proposition in the regress, in terms of which all the others are to be justified (if they are to be justified at all), will not be justified itself - for I did not believe it reasonably because I inferred it from no other proposition. But then the whole edifice of my justified beliefs collapses. This criticism would not apply to the sort of inferential justification of physical object beliefs given by Descartes, however. One might argue that God must exist, and that he could not suffer us to have a completely delusive sense-experience. Thus one might infer on a particular occasion that such-and-such was probably the case with regard to the physical world, using as a premiss the proposition "God would not in general deceive me about the nature of the world I live in." However, this Cartesian approach has problems of its own, as is clear.

But in fact the Russell-Lewis view is as follows: There is a set S which is composed of a number of propositions. From members of S and other propositions which we reasonably believe

all physical object propositions not in S must be validly inferred if they are to be reasonably believed. (The members of S are reasonably believed for other reasons than that they can be inferred from other propositions.) However, it may be said that this view is no different from the one we all accept uncritically. For we all agree that many of the propositions about physical objects that we know we know because we inferred them validly from other propositions we knew. So to make the originality of the Russell-Lewis view patent, we must add: "For Russell and Lewis the members of S are a limited number of hypotheticals which license inferences from propositions about mental phenomena to propositions about physical phenomena; and no proposition about physical phenomena that is not a member of S, (and is not reasonably believed because validly inferred from other reasonably believed propositions about physical phenomena which are not members of S), is reasonably believed unless it is validly inferred from a proposition (or propositions) about mental phenomena that we are justified in believing, in conjunction with a member (or members) of S." The distinctive feature of the Russell-Lewis view is thus that our beliefs about the physical world are only held to be justified if they have been validly inferred from some propositions we are justified in holding about our mental phenomena and some hypothetical propositions which allow inference from the mental to the physical. (Though, of course, Russell and Lewis would agree that a man is also justified in believing propositions about physical phenomena that he has validly inferred from propositons about physical phenomena that he is justified in holding in the above-mentioned way).[1]

[1]This account of Russell's position is misleading: - See Appendix p 236

This is a general account of the Russell-Lewis view. The exact specification of the propositions which they believe license inference to propositions about physical phenomena will be given later. Two very damaging criticisms of the Russell-Lewis view could be developed in the following way: first, if it could be shown that, though indeed we do arrive at some of our beliefs about the physical world by inference, the vast majority of our beliefs about physical objects, including those which are the basis of the inferential beliefs I have just mentioned, are not in fact inferred from propositions about our minds along with some hypothetical propositions. For then we would be led to suppose that we are not justified in holding these beliefs, that is, we would be led to a position where we had to admit we knew little or nothing about the physical world, should the Russell-Lewis view be correct. For according to this view, we can only be justified in these beliefs if we have carried out such inferences. Second, when we come to consider the proposed constituents of the set S (the propositions licensing inferences from the mental to the physical) we may discover that these are in some way defective: they may not in fact license the inferences as they are meant to; or they may not be propositions which are in themselves reasonable to believe. For if the Russell-Lewis view is to survive, these basic hypotheticals must be able to stand without need of justification, since we are supposed to be justified in holding propositions about physical phenomena just because they follow from these hypotheticals. We must consider, then, whether a man would be justified in holding these hypotheticals even though he could provide no justification for holding them.

The two questions we must ask, then, are: "Do we infer the majority of our beliefs about the physical world?" and "Can we justify these beliefs by reference to propositions about mental phenomena and some self-evident hypothetical propositions licensing inferences from the mental to the physical?" If the answer to both questions is "No", then the Russell-Lewis view is completely overthrown. If the answer to the first is "No", but to the second "Yes", Russell and Lewis can say that although we are not in fact justified in holding the beliefs we do about the physical world, we could acquire such justification if we wished. Both these questions are discussed, and answered, by Price in Ch. 4 of "Perception", and it is clearly worthwhile to study his answers before attempting to give any of our own.

SECTION 2. Price on the doctrine that perceptual consciousness is an inference.

Price discusses the doctrine that (as he puts it) perceptual consciousness is fundamentally an inference from effect to cause in Ch. 4 of "Perception", as I have said. His criticisms of the doctrine will be helpful to us in our attempts to criticise it. The main weight of Price's attack should be directed on the view that the judgments we make about physical objects whilst perceiving them are inferences - for this is the doctrine he sets out to criticise. And indeed he does argue against it. But most of his time is spent first in describing as best he can a method of justifying our beliefs about physical objects and their properties by referring to our sense-experience and certain causal principles; and second in exposing this method as unsuccessful.

That is, he spends most of his time arguing whether or not we can justify our beliefs about physical objects by means of inferences from what we know about our mental phenomena along with some general principles that are self-evident. The introduction of these arguments seems irrelevant to Price's purpose - that p cannot validly be inferred from q does not prove that a man cannot infer p from q, for he may argue incorrectly - and Price's purpose is to show that a certain set of judgments - perceptual ones - are not inferences. Perhaps what Price is doing is trying to show not only that perceptual consciousness is not an inference, but also that even if it was, it could not provide us with assurance about physical objects, their existence and nature. However, we have the benefit of seeing a theory about the inferential justification of physical object propositions advanced and destroyed.

Price begins by erecting a theory in which perceptual consciousness is presented as inferential. The difficulty he encounters is to make it plausible. As he says (p. 67): "It is obvious that we are not ordinarily conscious of making any inference at all when we see a table or a chair or a tree; and this might seem to be already a fatal objection to the theory. But several answers are offered. The theory may say, like Helmholtz and others, "You do infer but you are not conscious of inferring, because you do it so quickly and without any effort." This will not do. If we are not conscious of inferring, what evidence is there that we do it at all?" Faced with this supposed difficulty, Price thinks the best way such a theory can be stated is if it is held that I have in the past inferred

material objects from sense-data by causal arguments, and this has enabled me to establish the inductive generalisation that whenever such and such a kind of sense-datum exists, such and such a kind of material object exists, too. What happens next, he says, is as follows: "Once having established it, I proceed henceforth to apply it in a mechanical way to all my sense-data as they come along, without thinking any more about the grounds upon which it is based, and without troubling to verify it in each new case by going through the whole causal argument again". (p. 68). Price's argument here is a little strange: he rejects the view that we go through an argument about the causes of our sense-data when we have them, concluding in a judgment that there is a material object of some kind that is responsible for each, and rejects it on the grounds that we are unconscious of any such argument; but then he allows the suggestion that, though not going through such an argument, we do go through some form of reasoning in every case of the type, that is, we argue "This is a sense-datum of sort S, and these are always connected with material objects of type M, so there is a material object of type M." But if it is true that we are not conscious of any reasoning process when making perceptual judgments, and we cannot fail to be conscious of any such reasoning if it occurs (both of which propositions Price holds), then it would seem that he cannot accept the alternative formulation he proposes for the inferential theory, any more than the original one. Perhaps what Price thinks is that we could not carry out a complex piece of resoning (such as the first version of the theory proposes) without being conscious of it, but we could do this if it were

the simple inference of the alternative theory. And, indeed, it does seem to be the case, as I shall argue later, that there are unconscious inferences. But Price does not himself say that there can be.

Price, having described a theory of perceptual consciousness which holds that it is inferential, goes on to give the most plausible account he can of how we could validly infer the existence of a physical object from the existence of a sense-datum. It is not obvious how this inquiry is relevant to the question "Is perceptual consciousness an inference from effect to cause?" Perhaps, though, Price is thinking on the following lines: "Perceptual consciousness usually is correct, i.e. the propositions we come to believe through it are usually true. But then it can only be inferential if it is possible to argue validly to propositions about physical objects from others about sense-data. For if this were not possible, why should perceptual consciousness, if inferential, so often be correct?"

To turn now to Price's account, he begins by stating that, if the inferential justification view is to be correct, we would need to be sure that every event has a cause. But then are we forced to invoke the existence of physical objects to be the causes of sense-data? Could not they be caused by one another? Price replies that if we were omnisentient beings, then it would be plausible to suggest that sense-data might be caused by other sense-data. But things are different in fact - "Every drowsy nod, every turn of the head, every blink", he says, "would destroy the order of Nature, if Nature consisted simply of <u>our</u> sense-data. Even the simplest laws, e.g. that unsupported bodies fall,

cannot be stated in terms of our sense-data alone . . . . When the motor-car is moving, I do not and cannot see the explosion in the cylinder. Here are effects without causes, if we insist upon stating causal laws in terms of sense-data alone. And again we have causes without effects. I drop a pencil from my window on a dark night. This should cause its fall. But I never see its fall." (p. 72). Thus, if every event has a cause, and if our sense-data are events, something must exist besides our sense-data: to redress the balance of the "old" world of our chaotic and disorderly sense-experiences we have to supplement it with a "new" world of physical objects. This argument for unsensed causes is, in Price's opinion, the only plausible basis for inferences from the existence of our sense-data to the existence of physical objects. Provided we are reasonably assured of the principle that every event has a cause, we can (he thinks) be reasonably assured that there are things other than our sense-data, that cause them. (whether we are so assured concerning the principle of universal causation, he discusses later.)

But, Price observes, the argument for unsensed causes tells us nothing as to the causes of our sense-data, except that they are not sense-data themselves. However, there are several methods, based on the argument for unsensed causes, which purport to show that these causes are material things, extended in space and enduring through time, and having such causal properties as natural science attriblutes to them. These methods (as presented by Price) are complex and hard to understand, and Price's arguments against them are equally difficult. The clearest

method is the Method of Correspondence, derived from Descartes' principle that there must be at least as much "reality" in the cause as in the effect, i.e., at least as many positive attributes. One who holds this priciple argues that wherever we find differences in the sense-data, there must be differences in their causes. Thus there must be differences in the non-sensible corresponding to spatial and temporal differences among sense-data. There must be a plurality of factors in the non-sensible, and they must be related to each other in an order having at least four dimensions. Further, as one part of our sense-field can change when other parts do not, as whenever (as we say) we see something move, the diverse factors of the non-sensible must have a certain independence of each other. Having argued that the non-sensible must have such characteristics, the theorist suggests that he has shown that it is a world of bodies in space and time, and that this world is at least as complex as common sense supposes.

But Price replies (p. 92) that all the theorist can have shown by his use of the method of correspondence is that in the Non-sensible there must be an ordered plurality of some sort. It does not have to be an ordered plurality of individuals, for there might be a number of characteristics of the same thing, which displayed sufficient independence to account for the observed facts. Again, Price argues, though our sense-data have spatial relations to each other, their causes need not: as it does not follow from the fact that my decision to draw a circle is the cause of its production that my decision is itself circular. Thus, Price concludes, it seems doubtful whether a man who is reasonably assured about the law of universal causation

and of the validity of such methods as the method of correspondence can validly infer the existence of physical objects by using these principles in conjunction with his knowledge of his mental state. But can one even be reasonably assured about the principle of universal causation? On p. 102 Price calls this principle into question. For Price thinks that the most we are justified in believing is that every event in the material world has a cause. "But is this proposition relevant to sense-data?" Price asks. Only if we are willing to assert that sense-data are events in the material world, he replies. But then we must assume the existence of the material world before we can use the principle of universal causation with regard to our sense-data. So we cannot use this principle to prove that there must be some other things than our sense-data, that is, material objects, which are the causes of our sense-data.

Price, then does not think we have rational assurance about premisses strong enough to enable us validly to infer the existence of physical objects, given that we have knowledge about our sense-data. Indeed, he thinks that no inference of this type can be made without begging the question. But what of the view that perceptual consciousness is inferential (whether the inference is valid or not, whether or not it usually results in true beliefs)? Well, Price simply asserts (on p. 99) that, as a matter of fact, we do not reach the belief we have in physical objects by inference from our beliefs about our sense-data. I suppose his reason for saying this is that we are not conscious of any passage of our minds from beliefs about sense-data to conclusions about physical objects at the time we are perceiving

the objects, for he thinks that if there was any such inference we would have to be conscious of it. But this does not seem to me to be at all plain, as I will argue below. I think a better argument to show that no inference of the supposed type takes place is presented by Price on p. 101.: the fragmentariness and interrupted existence of our sense-data, one of the starting points of the causal argument, is not historically original at all, Price declares. For we start out believing in physical objects, not in sense-data, since we have to be persuaded by argument that these are not identical with our sense-data. So it cannot be that, starting with a belief in our sense-data, we argue from them to physical objects.

The reason I think this latter argument is better I will now make plain, and in doing so I will generalize Price's argument into a criticism of any theory that holds that our perceptual judgments about the existence and nature of physical objects are inferences from what we know about our mental content at the time, along with some other principles. (Thus the argument will apply whether or not the mental content is supposed to be the sensing of sense-data or something else.) Earlier on I disagreed with Price's view that if perceptual consciousness were an inference, we could not fail to be conscious of it. For it is plain that, in many cases where it is proper to say we have reached some conclusion by inference, we are not conscious of having drawn these conclusions from some premisses. This is most obvious in everyday cases, for instance, when one concludes that the occupants of a house have gone away on holiday when one sees the milk-bottles piling up on their front step, or when one

realizes that a certain person known for his boisterousness has come home when one hears the front door slammed and the tread of heavy feet. Why is it proper in cases like these to say that one inferred that the people were on holiday, or that the boisterous person has come home? There may be no conscious passage of the mind from premisses to conclusions. What makes this sort of case one of inference is surely that I hold a certain proposition because I hold some other propositions and because I believe it follows from them. In this case I can be said to have inferred the proposition, even though my belief in the other propositions, and that they imply the inferred proposition, is not conscious. The test of whether an inference has taken place is my being ready and able to give reasons for the belief I have acquired (though they may not be good reasons), and my acknowledgement that if these reasons do not in fact support the supposedly inferred proposition, I no longer have the justification I had for holding it. In the case of the milk bottles, if asked why we thought the occupants of the house were away, we would say: "There were milk bottles piling up on the steps". If then someone were to say "So what?" we might continue and make the other premiss of our inference clear: "People don't let their milk-bottles pile up when they are at home". The further test would be one which made it plain whether or not it was for these reasons that we held the belief that they were away, and this test could be carried out by replying to the supposed inferrer "What if I told you that the people there are so forgetful that they often let milk bottles pile up even when they're at home?" If the acceptance of this information

caused the supposed inferrer to question his belief that the people were away, then this would be a strong reason to say he had inferred it.

So the fact that we are not conscious of inference does not mean we have not carried out an inference. What counts is whether we can give reasons for a belief we have acquired, along with the fact that we hold that belief for those reasons (or, at least, that those are among our reasons for holding that belief.) But to turn to the case in point, whether the beliefs we acquire about the existence and nature of physical objects during our perception of them are in general inferential, it is plain that they are not. If I am asked "What makes you think that there is a piece of paper with writing on it, and a hand (your hand) with a blue and silver pen in it before your eyes at the moment?" I find it hard to give an answer. I might try to scrape up an answer, if I thought it was incumbent on me to produce one, for instance, "It looks as though there's a piece of paper, etc, and things are usually the way they look", but apart from the fact that this is a philosophically doubtful reason, it seems quite plain to me that it is not for this reason that I came to believe what I did about the things I was seeing. Indeed, it is clear that in the majority of cases of this type, a belief arises in us which is not the product of a train of reasoning, conscious or unconscious. For we find it difficult to give any reasons for our belief, and, even if we give them, we feel doubtful whether we acquired the belief for these reasons. It is for this reason that I think Price's argument that we have to be led to a belief in sense-data from

our belief in physical objects has force. For if a man does not believe there are sense-data (having never even heard of them) how could he possibly infer that a physical object of a certain type existed because he was sensing a certain sort of sense-datum? He could not. However, the sense-datum theorist might reply that indeed the man's judgment could not be of the form "I am having a ϕ sense-datum", but it could be of the form "It looks as though there is a ϕ physical object", and that it was he (the sense-datum theorist) who introduced the terminology of sense-data as a philosophically more perspicuous language for describing the phenomena which ordinary people describe in the terminology of seeming. So that the ordinary man is making judgments about sense-data, although he would not put it in those terms. But then it might be replied to the sense-datum theorist that as the language of seeming is, and must be, learnt subsequently to expressions in which physical objects are simply said to exist and have properties, there must be many statements made, and beliefs acquired, about physical objects which cannot have been inferred from prior beliefs about what seemed to be the case. But even if the language of seeming is not parasitic upon the everyday language about physical objects and their properties, it still does not seem to me that we are prepared to justify our physical object statements by reference to statements about what seems to be the case - or, rather, not in general.

So I conclude that the majority of our beliefs about physical objects, i.e. the vast majority of those we acquire whilst perceiving the objects in question, are not reached by

by inference. If, then, as Russell and Lewis suggest, we are only justified in holding such beliefs if we have inferred them from other propositions we know, we are not justified in holding them, and hence we will turn out to have no knowledge at all of contingent propositions about the physical world.[1]

Still, it is open to Russell and Lewis to say that we could turn our belief into knowledge if we carried out certain inferential procedures that we have open to us. Our beliefs about physical objects can, they could say, be rendered reasonable if we validly infer them from our knowledge about our mental states along with certain other propositions.

But didn't Price show that this is impossible? Didn't he prove that the law of universal causation, and the principle enshrined in the method of correspondence were not sufficient, along with propositions we know about our minds, to entail contingent propositions about physical objects? Yes, he did. But it may be objected that though Price believed the argument he described was the only one the causal theorist could use with any plausibility at all, he did not show that all the other possible suggestions that causal theorists might make about the justification of physical object propositions would be implausible. Russell and Lewis may then be able to describe for us a set of principles which are such that along with propositions we can know about our mental state they entail propositions about physical objects. If so, then they can at least claim that men can acquire knowledge about the world around them: provided, that is, a man is justified in holding the principles in question even though he can give no reasons for his holding them. For

[1]This is not entirely fair to Russell - See Appendix p 236.

even if these principles along with propositions about our mental state do entail physical object propositions, they will not be able to justify our believing in such physical object propositions as we do validly infer from them, if our only reason for holding that the principles are true is that they are supported by physical object propositions we already know to be true. The principles, then, must be self-supporting.

SECTION 3. Russell and Lewis on the inference to physical object propositions.

In "An Inquiry into Meaning and Truth" (1940) Russell makes it clear that he believes everyday judgments like "That is a dog", made when one is seeing a dog, are inferences. He introduces the notion of an "epistemological premiss" which is "(a) a logical premiss, (b) a psychological premiss, and (c) true as far as we can ascertain" (Penguin edition, p. 124). Amongst these epistemological premisses, which are the foundations of our empirical knowledge, are "basic propositions", which are beliefs caused in us by sensible occurrences, and of such a form that no other basic proposition can contradict them (p.131). He elsewhere (p. 142) defines them as "those propositions about particular occurrences which, after a critical scrutiny, we still believe independently of any extraneous evidence in their favour". Statements like "There's a dog" don't survive critical scrutiny. Because it can look to us as if there's a dog when there isn't one (we could be seeing a film and not realizing this) we will, according to Russell, on such occasions "avoid

such rash credulity as is involved in saying "there's a dog". We will say "there is a canoid patch of colour." (p. 143). Beliefs like "There's a dog"must be acquired by inference. The basic beliefs concern our experiences, and it is from these that we must infer propositions about physical objects, if we want to know that they are true. Such is Russell's view in this and his other works.

We have to go to "Human Knowledge" to discover the principles that, according to Russell, can, along with suitable basic propositions, entail physical object propositions. On p. 436 he writes: "Scientific inferences, if they are in general valid, must be so in virtue of some law or laws of nature, stating a synthetic property of the actual world, or several such properties. The truth of propositions asserting such properties cannot be made even probable by any argument from experience, since such arguments, when they go beyond hitherto recorded experience, depend for their validity on the very principles in question." The sixth part of the book, entitled "Postulates of Scientific Inference", is an enquiry into "what those principles are, and in what sense, if any, we can be said to know them."

The result of the enquiry is the formulation of five postulates. These postulates are supposed to be inherent in many of the everyday arguments we use, but to be consciously employed by scientists. The first is the postulate of quasi-permanence, which states: "Given any event A, it happens very frequently that, at any neighbouring time, there is at some neighbouring place an event very similar to A". The use of

this postulate is said (p. 506) chiefly to be to replace the common sense notions of "thing" and "person", a "thing" being said by Russell to be a series of events such as are mentioned in the postulate. The second postulate is as follows: "It is frequently possible to form a series of events such that, from one or two members of the series, something can be inferred as to all the other members." This postulate, along with the first, is supposed by Russell to permit us to infer the existence of series of mutually interrelated events, which are his analogues to what normal people call "things". It also allows us to make the inference we do when we attribute "the multiplicity of our visual sensations in looking at the night sky to a multitude of stars as their causes." (p. 508). The third postulate, of spatio-temporal continuity, which is concerned to deny "action at a distance", states that when there is a causal connection between two events that are not contiguous, there must be intermediate links in the causal chain such that each is contiguous to the next, or (alternatively) such that there is a process which is continuous in the mathematical sense.

The fourth postulate is the Structural Postulate, which is as follows: "When a number of structurally similar complex events are ranged about a centre in regions not widely separated, it is usually the case that they all belong to causal lines having their origin in an event of the same structure at the centre." This postulate, Russell says, is concerned with certain circumstances in which inference to a probable causal connection is warranted, e.g. when a number of people hear the same sound, the source of the sound is the centre, the

respective hearings of it are structurally similar complex events, and using the postulate we can know that the hearings have a common cause, the event which results in the sound being produced. (p. 511). The fifth postulate, of Analogy, states: "Given two classes of events A and B, and given that, whenever both A and B can be observed, there is reason to believe A causes B, then, if in a given case A is observed, but there is no way of observing whether B occurs or not, it is probable that B occurs: and similarly if B is observed, but the presence or absence of A cannot be observed." This postulate is on the lines of the traditional inductive principle. (pp. 511-12).

Now with postulates such as these, plus propositions about our experiences, is it possible for us validly to infer other propositions about physical phenomena? If the postulates are to do their job, they should allow us to draw conclusions about the nature of the physical world. But how can they do this? They contain no reference to physical phenomena, either the things in which common-sense believes or the entities which scientists describe. So the postulates, along with propositions which describe some mental state, cannot imply any propositions about physical phenomena. Indeed, there is some difficulty in understanding what Russell thinks he is doing. In the first and last chapters of Part VI of "Human Knowledge" he makes it sound as though the postulates are the basis of all human knowledge, not just scientific knowledge. But the very name of the postulates, "Postulates of Scientific Inference", suggests a narrower interpretation of Russell's purpose. The inferences that would be licensed by his principles are more like scientific statements

than statements about the world of common-sense. But the position is complicated by the fact that Russell wishes to work with an ontology of events alone, and make no reference to things. (Or, at least, this seems to be his view on p. 506. On p. 507 a different view is expressed: "A "thing" is a series of such events. It is because such series of events are common that "thing" is a practically convenient concept." Of what he says on p. 507 I think one can justifiably ask "Is a thing really a series of such events?" This seems an utterly implausible suggestion.) This being so, it is hard to see how he can relate what he does in this part of "Human Knowledge" to what is known either by scientists or ordinary men. For they do not, either group of them, confine themselves to an ontology of events. However, it is plain that Russell does not describe premisses which along with propositions about people's experiences entail propositions about physical phenomena. Let us now see if Lewis fares any better.

In "An Analysis of Knowledge and Valuation" (1946), Lewis distinguishes three classes of empirical statements. First, there are "formulations of what is presently given in experience" (p. 182). These are expressive statements. "The distinctive character of expressive language, or the expressive use of language, is that such language signifies appearances." (p. 179). Second, there are terminating judgments, and statements of them. "These represent some prediction of further possible experience . . .. Terminating judgments are, in general, of the form "If A then E," or "S being given, if A then E", where "A" represents some mode of action taken to be possible, "E" some expected

consequent in experience, and "S" the sensory cue". (p. 184). Third, there are non-terminating judgments "which assert objective reality; some state of affairs as actual. These are so named because, while there is nothing in the import of such objective statements which is intrinsically unverifiable, and hence nothing included in them which is not expressible by some terminating judgment, nevertheless no limited set of particular predictions of empirical eventualities can completely exhaust the significance of such an objective statement." (p. 184). Lewis is thus to be classed as a phenomenalist.

He goes on to declare that the reason for distinguishing expressive statements from the other types is that without this distinction "it is almost impossible so to analyze empirical knowledge as to discover the grounds of it in experience, and the manner of its derivation from such grounds." (p. 185). Thus, to know that some non-terminating judgment is correct, we must derive it from some expressive statement(s). This is precisely Russell's view. How does Lewis think the derivation is to be carried out? By what principles can we pass validly from expressive to non-terminating judgments?

Lewis does not deal with this question as clearly as might be desired, but his answer is not entirely obscure: on p. 236, discussing the justification of a belief in an objective statement, he writes: "If in any instance a belief so arising be challenged, the only justification which can be offered for it is by way of some multiplicity of inductively corroborated real connections in experience. If you move your eyes, things seen will be displaced in the field of vision - unless illusory. If you reach

for what has certain recognizable but indescribable visual characters, you will feel it with your hand - if the apprehension is veridical. It is by learning such real connections in experience that we establish the actuality of things seen; learn that real objects exist having certain properties signalized by certain visual and other data". I take him to be saying that we know that certain experiences are good signs of the presence of physical objects. This is certainly the import of the last sentence of the quotation. This knowledge, he says, is acquired by learning. We discover that when we have such-and-such an experience we are in the presence of such-and- such a physical object. But it is plain that, as an explanation of how, in general, we come to know of the presence of physical objects, this account is incoherent. For we can only learn that one thing is a sign of another if we have an independent way of establishing that the second thing is present. So we can only learn that an experience of a certain type is a sign of the presence of physical objects of a certain type if we have some other, prior, way, of knowing the physical objects are there. It is true, as he says, that we can, when challenged about a statement that we have perceived a physical object, support our statement by referring to the fact that the object changed its place in our visual field when we moved our eyes, or was perceptible by touch as well as sight. But we cannot use such justifications in all cases. We have to have some other source of justification for our beliefs in physical object propositions in the majority of cases; and being so justified, we can go on to establish inductively the generalisations of which Lewis

speaks, which we may then use to justify other physical object beliefs we may be challenged about. I conclude, then, that Lewis does not give us a satisfactory explanation of how we can be justified in holding the hypotheticals that state that if one has an experience of a certain sort this is a good sign of the presence of a physical object of a certain sort. And so, I conclude, Lewis has not succeeded in showing that we can validly infer the existence and nature of physical objects from propositions we know about our minds and some other propositions we are justified in holding - for he has not shown how we could be justified in holding the hypothetical propositions we must have if we are to make the inferences. Thus, Lewis' account of the inferential justification of our beliefs about physical phenomena succeeds no better than Russell's.

SECTION 4. Conclusion

The accounts given by both Russell and Lewis of the inferential justification of our beliefs about physical phenomena were failures, Russell's because his premisses did not permit valid inference to propositions about physical objects, Lewis' because one set of his premisses was not satisfactorily justified. However, we can produce a theory similar to theirs which does not suffer from the defects under which their theories labour. This theory would be identical to Lewis', except that we would not argue that the justification we had for believing that the principles of the form "An experience of type A means a physical object of type B is around" was inductive; we would say that we

were justified in holding such principles in the same way as we are justified in holding beliefs at a particular time about our mental states at that time - that is, in a way that does not involve the having of good reasons for the belief. We would say that a man could, and does, know such principles are true even though he cannot give reasons for holding them, and, indeed, even though he has no reasons for holding them. This view would escape the criticism of incoherence that was made against Lewis.

But I do not think our new theory succeeds. My criticism of it does not spring from the fact that it suggests that there are propositions that a man knows for which he has no reasons or evidence: it is plain that there must be some knowledge of this type if there is to be any knowledge at all. Rather, my criticism is that this theory mislocates the propositions known without evidence amongst the body of our knowledge. Principles of the kind in question, I submit, could never be known by a man unless he had evidence in their favour. In this matter I am completely in agreement with Lewis: for he, as we will remember, demanded that such principles should be inductively corroborated. However, I cannot think of any way of altering the principles which along with propositions about our minds entail physical object propositions so that whilst still enabling us to make these inferences validly they would now be such that we would be justified in believing them even though we had no reasons for our belief.

So I conclude that just as the view that we arrived at most of our physical object beliefs by inference was shown to

be false, so the view that these beliefs are in fact justifiable by inference has also been shown to be incorrect. The upshot of this is that any causal theory that involves either or both of these views is incorrect just to the extent that it does. But, as we have seen, most of the causal theorists, e.g. Broad, Chisholm, and Grice, either openly reject or completely ignore both of these views. Russell alone embraces the justificatory inference theory.

CHAPTER THREE: SENSE-DATA AND THE CAUSAL THEORY OF PERCEPTION

SECTION 1. Introduction.

The majority of the causal theorists we have enumerated are committed to the view that there are sense-data, or percepts, or sensa (all these supposed phenomena being of a similar nature.) There are on the one hand the theories held at certain times by Broad and Russell that the objects of perception are always sense-data (otherwise known as sensa or percepts); and there are the other types of theory in which the perception of a physical object is said to be its causing someone to have a sense-datum or percept, as Smythies, Grice, and Russell (elsewhere in his writings) have suggested. On the other hand, there are causal theorists like Chisholm who will have no truck with sense-data and the like, as he thinks any reference to such phenomena leads to insuperable difficulties for the philsopher of perception. We must therefore discuss the questions whether there are sense-data, and if they are involved in the perception of physical objects. If they are found not to be so involved, or not even to exist, then the majority of the causal theories we have noted must be in error.

But these questions are not as easy to answer as they first may appear; and this is because we must distinguish the different views that philosophers may be committing themselves to when they declare that there are sense-data, or percepts, or sensa. One sense-datum theorist may differ enormously in his views from another. Most philosophers who criticize the sense-datum theory quite ignore this fact, and speak as though

it was one clearly-defined view they were attacking. And, indeed, they may be attacking one view, but then it should be realized that there are sense-datum theorists who will not hold that view. So we must look carefully to see what the causal theorists who believe in sense-data are committing themselves to. Then we will be able to decide whether their theories are severally undermined by an adherence to sense-datum theory.

I shall, however, cast my net a little wider, and consider what some of the more distinguished sense-datum theorists (even if they were not causal theorists) have committed themselves to by their theories. I think this is a useful exercise as it helps to destroy the view that there is one monolithic sense-datum theory, a view which seems to underlie much writing on the subject. I shall divide the philosophers into two groups: those who introduce the notion of a sense-datum (or percept, or sensum) in a controversial way, and those who do not. A philosopher introduces one of these terms in a controversial way if it is a matter of dispute among philosophers whether there are any such phenomena as the ones the term is supposed to stand for. Thus if "sense-datum" is introduced as meaning "front side of a physical object" then this is uncontroversial. No philosophers will rush to dispute that there are front sides of objects. But if it is introduced as meaning "non-physical particular occurring whenever we perceive a physical object, such that the person who is conscious of it cannot be mistaken as to its characteristics" then this is a source of controversy: for philosophers differ as to whether there are any such things. However, it does not follow from the fact that the term in

question is not introduced controversially that the sense-datum theory presented will not as a whole be controversial. For the further description of the phenomena for which the uncontroversially introduced term stands may itself be a source of philosophical controversy, as would happen if I introduced "sense-datum" uncontroversially as "object of perception" and then went on to say that no sense-datum could exist apart from a perceiver. Indeed, as Don Locke rightly remarks ("Perception", p. 21), both Moore and Price wished to introduce the term "sense-datum" in a fashion which could not give offence, and then to proceed to their more controversial statements in describing the nature of these sense-data. (Though it may be doubted, as I shall argue, whether they did introduce the term uncontroversially). So in the case of those who introduce whatever term they use in an uncontroversial way, I shall also describe their further characterization of it, so that it will be plain whether or not they are controversial at a first remove.

SECTION 2. Controversial methods of introducing the term "sense-datum" and its cognates.

Let us now consider some ways in which the term "sense-datum" and its cognates have been introduced. If we say that sense-data, percepts, or sensa that have been so introduced exist and are involved in perception, we will, I believe, be immediately involved in philosophical controversy. One of these ways is the one used in Broad's "Object Theory" of sensible appearance. Broad analyses the notion of "sensible appearance" in terms of

the expressions "direct awareness", "sensum" and "a peculiarly intimate relation", which later is declared to be a causal relation. He writes ("Scientific Thought" pp. 239-40): "Whenever I truly judge that x appears to me to have the sensible quality q, what happens is that I am directly aware of a certain object y, which (a) really does have the quality q, and (b) stands in some peculiarly intimate relation, yet to be determined, to x . . .. Such objects as y I am going to call sensa". Broad does not explain what he means by "direct awareness", but presumably he means "perception" or what has been called "direct perception". Now it is plain that this leads him straight into controversy: for it follows from what Broad says that whenever a man perceives something that looks different from what it is, he perceives, or directly perceives, another object as well, which has the quality the other thing seems to have. But this introduction of new entities is considered highly objectionable by many philosophers.

Another controversial way of introducing the notion is the one used by Price, when he uses the famous example about the tomato ("Perception", p. 3): "When I see a tomato there is much I can doubt . . .. One thing however I cannot doubt: that there exists a red patch of a round and somewhat bulgy shape, standing out from a background of other colour-patches, and having a certain visual depth . . .. Analogously, when I am in the situations called "touching something", "hearing it", "smelling it", etc., in each case there is something which at that time indubitably exists - a pressure, a noise, a smell . . .. The thing present is a "sense-datum"." Now it seems that any

philosopher could agree with Price, giving the following reasons, that there are sense-data: "When I see a tomato it is true that on most occasions I cannot stop myself doubting the existence of something - a tomato. Normally, when we perceive physical objects, it is psychologically impossible for us to doubt that they exist." So it seems that any philosopher can accept that there are sense-data in Price's sense, and say that they are physical objects. But then we may conclude that the notion has been introduced by Price in a non-controversial way. But I think what Price was really trying to get at was that even in those cases where, though I see a tomato, I may doubt that there is one there (e.g. if I was told that what was a real tomato was a fake), there is something there the existence of which I cannot doubt - a patch of a certain shape and colour, as he describes it. But I think this is philosophically controversial, to say that in every case of perception there is something of which the perceiver is aware, the existence of which he cannot doubt. For one who believed he was being hallucinated when he was in fact perceiving a tomato would not as a result of the experience he was undergoing be assured of the existence of any entity - or so it might be argued by philosophers. Only the philosopher who like Broad thinks that, when X that is ϕ appears ψ to A, A must be aware of a particular that is ψ, and that when it appears to A as though there is something that is ϕ, A must be aware of a particular that is ϕ, will subscribe to Price's opinion that in every perceptual situation there is something the existence of which we cannot doubt. So I conclude that it is controversial

whether there are sense-data, in the sense Price introduces of the term "sense-datum".

We should also note Smythies' method of bringing in the notion of a sense-datum. The basis of the various definitions he gives is that of an after-sensation. "We can instruct anyone how to set about observing an after-sensation, and no-one is likely to confuse an after-sensation with a physical object", he says. ("Analysis of Perception", p. 6). He then goes on to give an obscure definition of the term "sense-datum", using what seems to me to be an unnecessarily technical terminology, and one which he leaves unexplained. He writes: "If (having obtained an after-sensation of a light bulb) you can observe the following spatial relations of the after-sensation you will be able to use Defn. 1.1 which states: 'If the boundary J of the after-sensation (hereafter y) can be observed to describe a Jordan curve in the total field composed of x and y such that it divides the total field into one inside and one outside, then x is a sense-datum'." It is plain that Symthies is here suggesting that when one has an after-sensation it is located in a field which contains a variety of other things. But this is controversial. Many philosophers will wish to deny that after-sensations form a field with any other things. They may be ready to say that it looks as though one's after-sensations are imposed on physical objects that one perceives, i.e. they seem to be in the same space, but they are not in fact so. So much for the controversial ways of introducing the term "sense-datum" and its cognates.

SECTION 3. Non-controversial ways of introducing the term "sense-datum" and its cognates.

A definition of "sense-datum" which can be taken in an uncontroversial way is Russell's in "The Problems of Philosophy", given on p. 12: "Let us give the name of sense-data to the things that are immediately known in sensation: such things as colours, sounds, smells, roughnesses, and so on." If we interpret "immediately known in sensation" to mean "perceived", which is the natural interpretation, why should anyone wish to deny that there are things we perceive? And if Russell adds that sense-data must not only be perceived, but also be colours, sounds, and the like, why should anyone wish to deny that there are sounds and colours, and that we perceive them? If then this is what Russell means by "sense-data", who will take issue with him when he says that there are such phenomena?

Several philosophers have attempted to introduce the notion of a sense-datum by reference to the notion of appearing. Some of these attempts lead to a non-controversial theory about sense-data. For instance, Paul, in his article "Is There a Problem about Sense-Data?" (PAS 1936-7), declares himself willing to accept the sense-datum terminology insofar as it is used as an alternative way of saying something we can already say in ordinary language, and provided its introduction serves some useful philosophical purpose. The manner of introduction that Paul seems to be supporting is that which is, for instance, practised by Ayer in "The Foundations of Empirical Knowledge". On p. 58 Ayer says: "I have chosen . . . to indicate its (i.e. the term "sense-datum" 's) usage by giving examples in

which sentences referring to sense-data are introduced as translations of sentences the meaning of which is already known. The general rule which one may derive from these examples is that the propositions we ordinarily express by saying that a person A is perceiving a material thing M, which appears to him to have the quality x, may be expressed in the sense-datum terminology by saying that A is sensing a sense-datum S, which really has the quality x, and which belongs to M". (Ayer shows no awareness of the variety of senses in which "appearing" expressions may be used.)

Grice also (in his article "The Causal Theory of Perception" in AS Supp. Vol. 1961) declares that the notion of the sense-datum can only be introduced by reference to some range of locutions of the form "It looks (sounds, feels, etc.) to X as if . . .." Now if Paul and Grice gave us a set of rules for translation into the sense-datum terminology, and stated that the sense-datum statement corresponding to a statement of appearing according to their rules has its meaning wholly determined by the meaning of that statement of appearing, then I cannot see how any philosopher could object to the introduction of the new terminology in that it resulted in false statements. For no philosopher is going to deny that some statements about the way things appear are true; and the sense-datum statements would be by definition equivalent in meaning to these. But, of course, it remains true that neither Paul nor Grice provides such rules: they are merely sketching a programme, which if fulfilled would provide a non-controversial introduction of the term "sense-datum". Again, neither provide

. . .

any good reasons for introducing this terminology.

Ayer, on the other hand, thinks that the introduction of this terminology brings to light philosophical problems that might otherwise escape our notice, and suggests it sould be accomplished as described in the quotation above. In "The Foundations of Empirical Knowledge" and "The Problem of Knowledge" he attempts to silence criticism of the new terminology by saying that the meaning of statements in it is wholly determined by the meaning of everyday language statements of which they are translations. Of his introduction of the term "seeming-x" (or "sense-datum"), he writes: "The transition from "it now seems to me that I see x" to "there is a seeming-x that I now see" may be defended on the ground that the second sentence is merely a reformulation of the first". ("Problem of Knowledge", Penguin ed. p. 109). But although Ayer seems here to be introducing the notion in an uncontroversial way, he concludes that in accepting the terminology of sense-data we part with the naive realist who believes that physical objects are directly perceived. This is because the naive realist overlooks "the existence of the gap between what things seem to be, in our special sense of seeming, and what they really are." (p. 133). But then the existence of sense-data in Ayer's sense must be controversial. But I think Ayer is wrong to connect the introduction of the sense-datum terminology with his parting company with the naive realist. For, as Ayer's words show, the supposed error of the naive realist can be made clear without any reference to the sense-datum theory: it is that the naive realist fails to realize that the occurrence

of a perceptual experience (its seeming to someone that something is the case) does not guarantee that there is something of the sort there seems to be. It is not the introduction of the sense-datum terminology that produces this dispute between Ayer and the naive realist, then.

Don Locke, in his recent book on perception, sets out deliberately to introduce the term "sense-datum" in what he calls a theory-neutral way. There may be things called percepts, he says, which would be mind-dependent entities, existing only in so far as they are perceived. But sense-data, he says on p. 22 on "Perception", are the immediate objects of perception. They are "the theory-neutral equivalent of percepts . . . The question at issue between the theories of perception is, in part, whether sense-data are percepts." Some difficulty arises, though, when Locke attempts to give an account of immediate perception, sense-data having been defined as the objects of immediate perception (p. 172f). He writes (p. 173): "The crucial point about immediate perception is that it does not go beyond what is perceived at the particular moment. Or, as we might prefer to put it, sense datum statements, statements describing what we immediately perceive, do not refer to or describe or entail or imply anything about anything which is not being perceived, in its entirety, at that particular moment". He then specifies four ways in which sense-datum statements do not go beyond the perception of the particular moment. First, they imply nothing about the real existence or nature of what is perceived. Second, "immediate perception is such that our sense data include only what is perceived in its

entirety at the time in question by the sense in question". (pp. 174-5). So, Locke says, hearing a train cannot be immediate perception, nor can seeing a jug. For in the first case, the train is heard indirectly, by means of hearing its sound, and in the second the jug is not perceived in its entirety - only the outside surface, not every part of it, is seen. Third, immediate perception is restricted to the sense objects of the appropriate sense, e.g. sounds for hearing, odours for smelling. Finally, the report of what is immediately perceived describes the sense objects as they are perceived to be, not as they really are. "The sound I hear may, in itself, be loud and squealing but if, due to the cotton wool in my ears, it sounds soft and muffled to me then the correct sense-datum description of that sense object is "Soft and muffled", not "Loud and squealing." " (p. 177).

One difficulty is the way Locke moves from talking about the characteristics of "sense-datum statements" to talking about those of immediate perception. The first and last points he makes about immediate perception and sense-data are made in terms of the language of sense-data; the second and third make straight reference to the phenomena mentioned. This smacks of confusion, between the more normal sense-datum theory and the sort of theory held, say, by Paul and Grice. The former theory involves the assumption that there is a range of particulars which are properly called "sense-data". The latter does not, only containing the assertion that there is a language which can properly be called "the sense-datum language". But this obscurity covers a more serious difficulty, which is the

following: it seems we would all be ready to admit the existence of sense-data if these are said to be the objects proper to each sense, or the things perceived in their entirety at a particular moment. We all admit that there are sounds, and front surfaces of material things. But would we be willing to say that the loud noise we heard was really soft because we heard it through plugged ears? Would we be willing to say that sense-data, as being the proper objects of the senses, possessed the qualities they seemed to possess to their perceiver? Surely not. We would say that it was an objective matter what qualities a sound had, so if sounds were sense-data their qualities could not always be what it seemed to their perceiver that they were. There appears, then, to be an inconsistency in Locke's criteria. for sense-data. But it is plain that he tries to introduce the notion of a sense-datum uncontroversially, and that if he had merely defined sense-data as the proper objects of perception by each sense or as the things perceived in their entirety at some particular time he would have succeeded. But he says more, and thus gets into difficulty.

Don Locke's account of sense-data seems to leave him, then, in a middle position. But the other philosophers whose views I have described in this section do succeed in introducing the term "sense-datum" in an uncontroversial way. Of those who go on to further characterize the nature of sense-data, Russell and Ayer agree that they are particulars not to be found in the physical world, private to the person who has them, and dependent on him for their existence. So Russell and Ayer part company with the direct realist, just like those

philosophers who used a controversial method of introducing the term "sense-datum", but they do so at a later stage in their argument.

SECTION 4. G.E.Moore and the introduction of the term "sense-datum".

I have left G.E.Moore's treatment of the topic until last, as his work on the subject is the most thorough and the most complex. I believe he sometimes introduces the term "sense-datum" in a controversial way, sometimes in an uncontroversial fashion. Anyway, he discussed sense-data and the problems relating to them in a series of articles spread over many years. In "Some Main Problems of Philosophy" (1910-11) he declares that when he sees an envelope, he sees a white patch. This he calls a sense-datum. There are things he calls sensations, which are experiences consisting, e.g. in the seeing of a colour (a sense-datum). The act directed upon the sense-datum in such cases he calls "direct apprehension". A similar view is expressed in "The Status of Sense-Data" (PAS 1913-14). He there interprets the expression "I see X" as "I directly apprehend X and X is a patch of colour (or something of the sort)". X here is, in his terminology, a sensible or sense-datum. Now is there any reason why any philosopher should wish to deny that there are sense-data in this sense? For it is unlikely that anyone should wish to deny that we see patches of colour, hears sounds, etc., and on Moore's definition to see a patch of colour is to directly apprehend a sense-datum.

In "Some Judgments of Perception" (PAS 1918-19) Moore intjroduces the notion in a different way. He first mentions

a class of judgments of perception, e.g. "This is an inkstand", judged when one is perceiving an inkstand. There is one thing that seems to him to be very certain about such judgments. It is "that in all cases in which I make a judgment of this sort, I have no difficulty whatever in picking out a thing, which is, quite plainly, in a sense in which nothing else is, the thing about which I am making my judgment, and yet though this thing is the thing about which I am judging, I am, quite certainly, not, in general, judging with regard to it, that it is a thing of that kind for which the term, which seems to express the predicate of my judgment, is a name." He goes on to say: "The object of which I have spoken as the object, about which . . . such a judgment as this always is a judgment, is, of course, always an object which some philosophers would call a sensation, and others would call a sense-datum." A similar way of introducing "sense-datum" is also to be found in Moore's "Defence of Common Sense" (1925). There he repeats the contentions he has earlier made about sense-data and judgments of perception, he goes on to say (Philosophical Papers, p. 54): "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 so he will be able to pick out something . . . with regard to which he will see that it is, at first sight, a natural view to take that the 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."

There can be little doubt that both these ways of introducing the notion are controversial: for if it is introduced in the first way there will be many who will want to deny that it is certain that, e.g. when I make the perceptual judgment "This is an inkstand", we are not judging the thing we refer to by the "this" to be an inkstand; whilst if it is introduced in the second way, one who accepts that there are sense-data in this sense is committed to the view that it is doubtful that what one actually sees when one looks at one's hand is ever even its surface, let alone the hand itself. And this view is certainly controversial.

Moore's work contains differing views about what sense-data are, then, some controversial, some not. Summing up his own investigations himself (Philosophy of G.E.Moore: "A Reply to My Critics", p. 639) he says: "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". And Moore explains "directly see", which is presumably the name of a species of direct apprehension, as the sense of "see" in which one can speak of seeing an after-image when one's eyes are shut, or in which Macbeth saw his dagger (ibid. pp. 629-30). Is this method of introducing the term uncontroversial? I think many philosophers might take issue with it, on the grounds that it presupposes that after-images and hallucinatory daggers are separate entities on to which we direct our minds in perception. It may be said that though this is true of seeing real daggers or real pictures, in the case of hallucination and

and afterimaging there are only objects that we are aware of in the sense of intentional objects. However, the objection to Moore might be put differently: the objector might agree with Moore that there are sense-data, but deny what he takes for granted, that whenever we perceive a physical object we directly apprehend a sense-datum. For the objector might think that it was plain that there are, in a sense, hallucinatory objects and after-images, and so would not wish to deny that there were sense-data in the proposed sense.

This concludes our survey of the ways in which the term "sense-datum" and its cognates have been introduced. From it we can observe that many of these ways are quite uncontroversial, and if the sense-datum theorist who has so introduced the term becomes involved in controversy, this is because of the way he further specifies the nature of sense-data. With regard to the causal theorists who invoke sense-data, it is plain that all of them but Grice either earlier or later become involved in controversy. Broad and Smythies introduce their sensa and sense-data in a controversial way; Russell does not, but he goes on to attribute further characteristics to them that must lead to dispute. These three philosophers are committed to the view that perception involves the consciousness of particulars that exist in space and time, but are not physical objects or constituents of physical objects. These particulars are supposed to exist in some mental realm quite divorced from the common world of physical objects which we think we perceive.[1] Grice, on the other hand, in accepting that there are sense-data and that perceiving a physical object involves having sense-data only commits himself to the proposition that this perception

[1] This is a misleading account of Russell's views, which varied from time to time - See Appendix p 237.

cannot occur unless it seems to a man as though something or other is the case (in some sense of this expression). I shall discuss Grice's view in a later chapter, where I shall advance a similar view to his, without resorting to the terminology of sense-data. For the rest of this chapter I shall consider whether any theory which involves the thesis that perception involves awareness of sense-data, if these are such as Broad, Smythies, and Russell say they are, can be correct. This is the thesis which is usually discussed under the heading "Are there sense-data?" We, however, have seen that the assertion that there are sense-data is not unambiguous. The question we are going to ask using this form of words could be re-expressed as "Are there non-physical particulars the awareness of which is involved in every case of perception?"

SECTION 5. Are sense-data the only objects of perception?

It will be remembered that the causal theories that involve reference to sense-data fall into two classes: the first sort hold that the objects of perception are always sense-data, and physical objects are the causes of these; the second that the perception of a physical object is its causing us to have a sense-datum. In this section I will discuss the first type of causal theory, which holds that the objects of perception are always sense-data, i.e., always non-physical particulars existing in space and time.

This view does not recommend itself to one naturally, and its supporters have not in recent times treated it as self-evident. They have agreed that it is only to be accepted if it

can be supported by some strong arguments. And in the attempt to give this support they have brought forward arguments from the facts of illusion, hallucination, and the physical basis of perception. But these arguments do not, I believe, succeed in showing what they are supposed to. Let us consider them in order. First, the argument from illusion. This is the rather misleading title given to the argument from the fact that things may appear other than they are. The title arose because it was mistakenly supposed that it was proper in all such cases to say that the people to whom they appeared other then they were were suffering from an illusion. The sense-datum theorists used an argument of the following kind: "This penny is round, but when seen under certain circumstances, it looks elliptical. At that time, what is seen is elliptical. But then what is seen cannot be the penny, because it is round. So what is seen must be an object of another kind." But this argument is clearly invalid, as the conclusion contradicts one of the premisses. For starting from the assumption that when we see pennies, they sometimes look other than they are, it is argued that we do not in such cases see them at all. If we remove the offending reference to seeing in the premiss, and argue "Sometimes pennies look to have characteristics they don't have, e.g. they may look elliptical, and in these cases we see something elliptical", the argument must still be rejected on logical grounds. For when a penny looks elliptical to someone in the sense here being used of the word "looks" it follows necessarily that the person in question sees it.

However, the argument may be re-stated as follows: "In

the situation which we would normally describe as "The round penny's looking elliptical to me", what I perceive is something elliptical; but the penny is round, so that, in the situation mentioned, I cannot be seeing a penny." But what reason is there to say that in the situation usually described as "something's looking elliptical to me" I must be perceiving something elliptical? Surely this will only be the case if the thing that looks elliptical actually is elliptical? Take the case of the situation which I would normally describe as a square tower's looking round to me. In this situation am I seeing something square or elliptical? Something square. There might be a temptation among people who haven't learnt about perspectival distortion to believe that under such circumstances they were seeing something round, but this would just be a case of false belief, and one of which experience would cure them. Or, at least, I see no reason to suppose otherwise. The sense-datum theorist owes us an argument if he wants to persuade us of what seems so obviously false - that when X looks ϕ to me, I must be seeing something that is ϕ, whether X is ϕ or not. But the sense-datum theorist gives us no such argument. So I conclude that the argument from illusion fails.

The argument from hallucination is perhaps stronger. It is something like this: "In hallucination, e.g. when Macbeth sees the dagger, something is seen, but it is not a physical object. But his experience is indistinguishable, at least as far as he is concerned, from those of the type we would call "perceiving a real dagger". This is why those who are

hallucinated are usually deceived into believing that they are in fact perceiving physical objects - there really are pink rats scampering across the floor, there really is someone whispering to them, but just out of sight. But if one cannot thus distinguish seeing a hallucinatory object and what is usally called seeing a real thing, surely there is no difference between them, and even in those cases where we think we are perceiving a physical object we must be perceiving a non-physical entity, a sense-datum." I think this argument does not necessarily lead the sense-datum theorist into the unattractive position that there is no difference between the cases we usually describe as "being hallucinated" on the one hand, and "perceiving real physical objects" on the other. For he can say that though the person having the experiences may not be able to distinguish them, there may be a difference: the sense-data involved in hallucination, he can say, in no way represent the world about the subject of the hallucination, whereas in the other case they in general do. Hallucinations and veridical experiences do not differ in a way which is obvious to the one experiencing them, only in their relation to physical objects, which are never perceived. However, even if the theorist can distinguish hallucination and perception in this way (and the distinction he draws may well break down upon further investigation), I think his argument is open to serious criticisms. First, there is his assumption that in the case of having a hallucination there is some object of which we are aware, as there is in cases of real perception. This object is supposed to be like a physical

object in some ways, but more evanescent and lacking some of the essential properties of physical objects. But it seems to me that having a hallucination of a dagger is rather to be compared to searching for a dagger. The fact that I am searching for such-and-such a dagger does not imply that there is such-and-such a dagger, plainly. But this does not lead us to suppose that when a man is searching for a physical object that does not exist, the object of his search is really something else - an entity something like a physical object, but existing in some ethereal mental realm. Searching can have as its object something that does not exist. I suggest the same is true of hallucination. The objects of hallucination are non-existent, not things rather like physical objects only less substantial. Hallucination only has objects in the sense of intentional objects. Now if this is so, the theorist cannot go on to argue that what is perceived in those cases we call "perceiving a physical object" is the sort of entity that is the object of hallucinatory experience. If this were something rather like a physical object, only less substantial, then we might be ready to suppose that the objects of normal perception were of this type. But we have no temptation to say that the things we normally perceive are merely intentional objects. We are likely to say: "If the objects of hallucination are only intentional objects, there cannot be a parallel of the kind you suggest between hallucination and ordinary perception, for ordinary perception is of particulars which it is at least possible can exist even though unperceived." And the second point I want to

make against the sense-datum theorist is that it is not the case, as he suggests, that all cases of hallucination are indistinguishable from cases of real perception by the person who is experiencing them. This is, of course, illustrated by the Macbeth case, where Macbeth is in doubt if there is really a dagger there. However, it may be said that Macbeth's doubt is produced by his inability to feel the dagger when he tries to grasp it, and also, perhaps, by his disbelief that daggers can float unsupported. Thus the doubt is not instilled in him by anything in the character of the visual experience he has, the hallucination of the dagger. A stronger point than this against the argument from hallucination is that even if it is allowed that the experiences involved in hallucination and perception are identical in some cases, it does not follow from this that perception is only of sense-data, even if we further allow that hallucination is the awareness of sense-data of some sort. All that the argument proves is that when one perceives physical objects one must also have an awareness of sense-data. For it may well be the case that experiences that are identical in themselves may or may not be perceptual experiences according to the different ways in which they are produced, and that the object perceived is the thing that plays a special part in producing a perceptual experience. In this case the sense-datum theorist may only be able to argue that the perceptual experience is the awareness of a sense-datum, whilst the object of the perception as a whole is something different, a physical object. The argument from hallucination can only prove its point, then, if it is further

shown that such an account of perception is incorrect. The argument in itself, even if it is correct in stating that the experience in perception is the awareness of a sense-datum, is not sufficient to show that perception cannot have a further object, which may be a physical object. But I do not think it is correct even in its view that the perceptual experience is the awareness of sense-data. For these are not involved in hallucinations, so we cannot argue from the experiental similarity between hallucinations and perceivings to the view that perceivings involve the awareness of sense-data.

The third argument, from the physical basis of perception, seems to be the weakest of the set. It is that, since the way things appear to us is a function of the characteristics of certain processes in the intervening media and our bodies, the nature of the objects of perception is dependent on the characteristics of these processes: but the nature of the physical objects we suppose ourselves to perceive is certainly not thus dependent, so the objects of perception cannot be physical objects. This argument relies on a suppressed premiss, which when stated makes us realize that the argument cannot be fully stated without begging the question. The premiss is that when things appear to us to have certain characteristics, what is involved is their causing us to perceive sense-data having these characteristics. It is only on this supposition that the sense-datum theorist can plausibly suggest that the nature of the objects of perception is dependent on the nature of certain processes in the physical world.

So much for the three arguments: it is clear that they

fail to prove their point. So I can see no reason to abandon the view that we very often perceive physical objects, and substitute the view that it is always sense-data that we perceive.

SECTION 6. Must the perception of a physical object involve awareness of a sense-datum?

A view which is not so immediately open to the charge of implausibility which I have made against the thesis that sense-data are the only objects of perception is the second one we mentioned as being held by causal theorists, that a man's perceiving a physical object is nothing other than its causing him to have or be aware of a sense-datum. This view is not open to the criticism that for no good reason it denies one of the most firmly held of our beliefs, the belief that we often perceive physical objects.

But very serious difficulties beset this view, also. Take the exposition that Broad gives of it in "Scientific Thought": X's looking ϕ to P is nothing more or less than P's being directly aware of a ϕ sense-datum that stands in a causal relation to X. Or Smythies' view: P's perceiving X is P's sensing a sense-datum that stands in a causal relation to X. It is plain that it is a precondition of these theories being correct that some significance should attach to the words "be directly aware of" and "sense" which can be elucidated without reference to the notion of perceiving a physical object, and which is such that it is possible for a man to be able to be directly aware of, or sense, a sense-datum, this being supposed to be a non-physical particular existing in time and space. Do

the theorists succeed in doing this? They do not even try. But can the job be done? It is up to us to enquire whether "sense" and "be directly aware of" can be given an appropriate significance.

One possibility is that these terms mean the same as "perceive" when it is used in the sentences "Macbeth perceived a dagger that wasn't there", "The drunkard may perceive pink rats", or "Milton perceived his 'late espoused Saint' in his dream." But this possibility is fraught with difficulties. For it may be held that there is no difference in the sense of "perceive" in these examples from the sense in which it is normally used. Austin argues thus against Ayer in "Sense and Sensibilia" pp 87-102. And Don Locke takes the same view in his recent book on perception (p 16): "It may be true", he says, "in a way, to say that Macbeth didn't perceive a dagger, but this is not true in the way that philosophers take it to be true. They usually take it to mean that Macbeth wasn't perceiving, that he didn't <u>see</u> a dagger (or anything else), that he only thought he saw, or merely "saw" in some special square-quotes or Pickwickian sense of the verb, a dagger. Obviously Macbeth didn't see <u>a dagger</u>, at any rate not a real dagger, but he did see something, something which he described as a dagger."

But if this is correct, the causal theorist cannot say that perceiving a physical object is the same as being caused by it to sense, or be aware of, a sense-datum. For then he is saying that perceiving a physical object consists of being caused by it to perceive a sense-datum, and this perception of

a sense-datum must consist, on his view of sensing and direct awareness, in the sense-datum's causing the perceiver to perceive yet another sense-datum, and so on ad infinitum. So the causal theorist, if he wishes to equate direct awareness or sensing with perception as involved in hallucination and dreaming, must argue that this sort of perception is different from that which occurs in normal cases of perceiving physical objects. This seems to me to be the natural view to take of statements like "The drunkard perceives pink rats". What occurs in the drunkard's case can be called perception because of the similarities in it with what occurs when real objects are perceived. But here is the difficulty for the causal theorist: it is natural for us to suppose that originally the use of the perception words "see", "hear", "feel", etc., to describe hallucinatory and dream experiences was metaphorical, for these experiences are less frequent than, and parasitical upon, the perceivings of physical objects, but that the metaphor hardened into standard usage. However, the upshot of this plausible view about the way the perceptual words came to be applicable to hallucinatory and dream experiences is surely that the proper account of the sense of "perceive" in "Drunkards often perceive pink rats when drunk" is "have experiences similar to those involved in the perception of pink rats", the word "perception" in its last occurence being used in its ordinary sense, the one in which I can now say I perceive a piece of paper, a pen, and my hand. So if the causal theorist takes this view of the meaning of "perceive" in those cases when it is used to describe hallucinatory experiences, he cannot make

reference to it in his analysis of the normal sense of "perceive". For the sense of "perceive" as found in its normal use must be understood before one can understand the sense the word is found in in those cases where it is employed to describe hallucinatory experiences.

However, it may be replied that what makes it reasonable to compare the experiences we have in hallucination and dreaming with those we have in the perception of physical objects is that in both sets of cases the mind is directly aware of some sensuous phenomena. This direct awareness, it may be suggested, is referred to by the word "have" when we are talking about hallucinations and dreams, and also mental images. So the suggestion we must now consider is that the terms "direct awareness" and "sensing" are equivalent to "having", in the sense this expression is used in when we say a man has a hallucination of a dagger, or an after-image of a light bulb, or a dream image of a wonderful land. But my reply to this suggestion is that whilst sense-data are supposed to be particulars that exist in space and time, which can be logically distinguished from the mental acts that are directed upon them, it seems to me that the objects of "having" that we have mentioned are not like this. "I am having a hallucination of a dagger" does not, I suggest, imply that I am standing in a relationship - one of awareness - to an object which might exist apart from my awareness - a hallucinatory dagger. Rather, the expression conveys that I am in an unanalysable state of mind, so that the words "am having" do not stand for any mental phenomenon by themselves. The words "am having a hallucination of a dagger" are the full specification

of the mental state I am in, and this state cannot be analysed into simpler components, to which components of the verbal expression could be supposed to refer. "I am having a hallucination of a dagger" is thus to be compared with "I am white" rather than "I am eating a good meal". No more than "I am white" does it state that I am doing something to something, or am in some way related to something. If this is correct, then "be directly aware of" and "sense" cannot mean what "have" does in these cases, for the objects of sensing and direct awareness are supposed to be capable of existing apart from the acts of sensing and direct awareness, and the whole situation "I am sensing (am directly aware of) a sense-datum is supposed to admit of a relational or act/object analysis.

This being so, I cannot see any other notion that seems at all appropriate for the role of explicating the sense of these two terms, and am thus led to doubt whether any analysis of the perception of a physical object which involves reference to being directly aware of, or sensing, sense-data, can be correct. Moreoever, we have to face the well-known difficulties that the acceptance of sense-data brings, if we do introduce them. The world will be populated by an enormous number of entities the existence of which we do not recognize in our pre-philosophical innocence. They cannot be placed in the physical world, so they must exist in a mental realm, and then we are faced with the difficulty of describing how these mental phenomena are related to physical objects. Further, the nature of this mental realm must be highly complex. As sense-data are supposed to be extended in space, and to exist in time, the world in which they

exist must have three dimensions of space and one of time. How can these worlds be individuated, supposing each conscious person to have his own? It may be replied: "By reference to the persons to whom they severally belong." But as the theorist must hold that it is possible for people to have qualitatively identical sense-data at the same time, and thus that several qualitatively identical private worlds can exist at the same time, the private worlds must themselves exist in a common space (or something analogous to it) if they are to be capable of individuation one from the other. Thus we arrive at the picture of a multi-dimensional universe of minds, each mind being causally related to a body in the physical world, as suggested by Smythies. Whether or not this suggestion about the nature and relations of mind and matter is coherent and comprehensible, it would seem that, for Occamite reasons, we should avoid it if possible.

But why should we accept the view that whenever we perceive physical objects we are aware of sense-data? The view that we perceive only sense-data was held to be prima facie implausible because it ran counter to our belief that there are times when we perceive physical objects, and so we demanded of the sense-datum theorist some good reasons for giving up our belief, and when he failed to give them, we felt that we could safely disregard his view. Now, in the present case, the theorist does not deny that we ever perceive physical objects, but he seems to me to make an equally implausible suggestion, that whenever we are conscious of a physical object in perception, we are also conscious of something else, a non-physical particular

that is private to us. We have seen that his position is rendered all the more difficult by problems he encounters when he specifies the nature of this consciousness (as "direct awareness" or "sensing" or whatever) and by the complexity of the ontological picture which his views commit him to. What reason can the sense-datum theorist give us for accepting a position so far removed from ordinary beliefs and so beset by problems? He must have recourse to rather differently stated versions of the arguments from illusion, hallucination, and the causal basis of perception that we discussed before.

As to the argument from illusion, he will say: "Whenever the penny I perceive looks elliptical to me, I am directly aware of something that is elliptical, so the perception of the penny must involve the awareness of something else, a sense-datum; for the penny is round." But what reason is to be found here for holding the position that is recommended to us? The sense-datum theorist merely asserts something to be true that no normal person accepts. A man might believe that he was conscious of something elliptical when he was in fact seeing a round penny, if he was deceived by a perspectival trick, but when he was shown the penny from a normal angle, he would give up the view that he had been conscious of something elliptical. For what he believed was that he was <u>seeing</u> something elliptical, not that he was directly aware of it, if direct awareness is supposed to be something different from perceiving. Normal people don't believe that they are always aware of some other phenomena whenever they perceive

physical objects: the only consciousness of objects involved in perception is, they think, the perception itself, of the physical objects. In the case of the man tricked about the shape of the penny, he did not believe that he was conscious of two things, a penny, and something elliptical, the consciousness of the latter being involved in the (perceptual) consciousness of the penny.

I don't think the sense-datum theorist persuades us to accept his view by referring to the facts of what he calls illusion, then. How does he fare with the re-stated argument from hallucination? The sense-datum theorist will argue: "When a man is hallucinated, he does not perceive the objects we say he perceives in the same sense of "perceive" as that in which we may be said normally to perceive physical objects. But in hallucination a man is indeed aware of certain objects, not physical ones, but sense-data. How then could it come about that men confused hallucinatory and perceptual experiences unless a similar type of experience occurs in each case? So the perception of physical objects must at least involve the awareness of sense-data in order to produce the required experiential similarity, even though this perception may not be anything more than the awareness of sense-data." The objection I make to this argument is the same as I made to its earlier counterpart: that it seems doubtful to me that hallucination involves the awareness of sense-data, if these are supposed to be particulars capable of independent existence. There is the further difficulty that I have already dealt with in this section, that of describing the nature of the supposed awareness. This we were unable to do in a plausible fashion.

The third argument, from the physical basis of perception, can only be stated in a question-begging way, just like its counterpart. The theorist must say that the nature of the objects of direct awareness in perception depends on the state of the perceiver's body, etc., so that

these objects, sense-data, must be different from physical objects. But this argument only has force if we assume that when we perceive a physical object that seems ϕ, we must be directly aware of a sense-datum that is ϕ. But this is what the argument sets out to prove, or, rather, it implies the truth of the desired conclusion of the argument all by itself.

I conclude that the sense-datum theorist cannot provide us with good reasons for rejecting our everyday belief that we are conscious in their perception only of physical objects, or for accepting his view that we are aware in a non-perceptual way of other phenomena, sense-data, in every case of perceiving a physical object.

SECTION 7, Conclusion

We have seen that one who is described as a sense-datum theorist may hold one of a variety of views, not all of which need be a subject of philosophical controversy. In Section 5 and 6 we considered whether causal theories which embodied a controversial sense-datum theory were for this reason rendered unacceptable. The controversial theory was that sense-data are non-physical particulars extended in space and existing in time.[1] We saw that sense-data in this sense might be said to be involved in perception in either of two ways: there was the theory that sense-data were the sole objects of perception, and that physical objects were their causes; and the theory that to perceive a physical object was to be caused by it to have a sense-datum. Both these theories, the first held sometimes by Broad and Russell, the other held by Russell and Smythies, were found to be unacceptable because they involved a belief in the existence of sense-data, in the controversial sense I mentioned, and the supposition that the awareness of these was somehow involved in the perception of physical objects.

[1] This is not a fair statement of Russell's position. See Appendix p 236.

CHAPTER FOUR: THE THEORY THAT PERCEIVING A PHYSICAL OBJECT IS BEING CAUSED BY IT TO HAVE A SENSE-EXPERIENCE

SECTION 1. Introduction

We have in the last two chapters considered two sets of difficulties that beset at least some of the causal theories we enumerated in the first chapter. These difficulties related to the views held by some causal theorists that, on the one hand, perceptual consciousness should be inferential if it is to provide us with knowledge about the world, and, on the other, that perception is of, or involves the awareness of, non-physical particulars that have been called sense-data or something of the sort. As a result of this consideration we have concluded that causal theories to which either of these views are integral cannot be upheld with plausibility. So we are left with the causal theories of the type held by Grice and Chisholm: for these theorists support neither of the above-mentioned views. (We saw that Grice did, indeed, introduce sense-data into his theory, but the significance he gave to sense-datum statements rendered them philosophically innocuous and to all intents and purposes unobjectionable.) We must now discuss whether any theory of this type can be correct, and if we conclude that one of them must be, we will proceed to study the individual versions produced by Grice and Chisholm in more detail. I shall also take into account the theory of perception advanced by R. J. Hirst in his book "The Problems of Perception". Though he does not call it a a causal theory, it has much in common with the theories of

Grice and Chisholm.

But what exactly do these theorists' views have in common? How are we to characterize the common theory to which they subscribe? I suggest it can be characterized in the following way. First of all, they agree that if a man is to perceive an object at some particular time, he must be having an experience of a certain type at that time. Hirst speaks of it (rather oddly) as the perceiver's being subject to "a mode of active experience", by which he does not mean the sensing of a sense-datum, for in this latter supposed form of experience an act can be distinguished from an object upon which it is directed, whilst in Hirst's opinion no such distinction exists in the experience that must occur if perception is to take place. Such is Hirst's view, and Chisholm concurs, describing such an experience as "its appearing in such-and-such a fashion to someone", e.g. "its appearing redly to me." Grice calls the experience "the having of a sense-datum", but suggests that this expression means no more than standard locutions of the type "It seems to such-and-such a person as if such-and-such were the case", and so repudiates the more controversial claims of sense-datum theorists.

I shall describe this view that these theorists share by saying that they make it a necessary condition of A's perceiving X at t that A should have a sense-experience at t. By this I mean to suggest no more than that they agree on the necessity of some experience of a type peculiarly related to perception. This condition for perception that they advance seems to me to be uncontroversial and obviously correct: no-one denies that perception involves having experiences of a distinct sort at the time of the

perception. What may be argued about is the nature of this experience: some have said it is the awareness of sense-data, others the acquisition of beliefs about the world, others the sort of occurrence we describe as "its seeming as though something is the case to someone". I shall later give my own views about the nature of the experience involved in perceiving physical objects, but at present let us leave the matter undecided.

The second common element in the views of Grice, Chisholm, and Hirst, is that they believe that A cannot perceive X at t unless X play some part in producing a sense-experience of A's at t. This is the nub of their theories. No-one will dispute that X cannot be perceived unless A has a sense-experience; what is controversial is the further demand that X play a part in producing this sense-experience of A's. How do they support their view that this is a logically necessary condition for perception? Hirst and Chisholm do not say: they seem to take it for granted, presumably because they believe that an acceptance of modern scientific doctrine on perception is incompatible with its rejection. Grice, however, and Martin, in his book "Religious Belief", advance arguments to support this view. We must now consider these, and more generally come to a decision whether we should hold, like the proponents of this brand of causal theory, that we cannot perceive a physical object at a time unless it helps to bring it about that we have a sense-experience at that time.

SECTION 2. The thesis that to perceive a physical object is to be caused by it to have a sense-experience.

Let us consider this thesis about perception, that A cannot perceive X at t unless X helps to bring it about that A has a sense-experience at t. Does it accord with our everyday beliefs? And how does it fare when brought face to face with competing theories of perception? I shall take into account three other theories concerning the perception of a physical object. The first simply states that perception is an unanalysable relation between perceiver and perceived, its nature being sui generis. The second is that perceiving a physical object is a matter of forming a certain judgment about it. The third is that one perceives a physical object when one has a sense-experience which represents it. (It is here understood that it is not part of B's representing C that C should have played a part in bringing B into existence.) It is plain that with regard to the first view, it must be wholly false if the version of the causal theory we are now discussing is correct. The two other theories can be combined with the causal theory, once it is admitted that they do not encapsulate the whole truth about perception, e.g., one might decide that A's perceiving X was a matter of X's causing A to have a sense-experience which represented X.

The first argument advanced in favour of the causal theory that I want to deal with is to be found in Grice's article "The Causal Theory of Perception" (AS Supp. Vol. 1961 p 142). Here Grice describes a situation where it looks to a man as though there is a pillar of a certain type in a certain place; and there is indeed such a pillar in that place. But it is not

seen. What is seen is another pillar of the same type, but in a different place, which is reflected in a mirror which stands between the first pillar and the perceiver. It is reflected so that it appears to be where the first pillar actually is. Why do we say the first pillar is not seen, whereas the second is seen? Grice replies that it is because the second, but not the first, pillar plays a part in making it seem to the man as though there is a pillar before him, that is, in producing the sense-experience involved in the perception. The difficulty I find about this example is that opponents of the causal theory might well accept the conclusion that when a man perceives an object by reflection it must play a part in bringing about the sense-experience involved in the perception of the object. This is because those who do not think that it is in general a necessary condition of perceiving a physical object that it play a part in producing the sense-experience involved in its perception may think that this <u>is</u> the case when it is a matter of hearing and smelling physical objects, and perhaps also of seeing them by reflection. For it seems natural to suppose that hearing a physical object is a matter of hearing (in another sense of "hear") a sound produced by the object. In the same way, it might be argued that seeing an object by reflection is a matter of seeing a mirror-image produced by the object. Thus the philosophers who do not in general allow that perception involves causation may allow that it does in cases like this. To make his example safe from this possibility Grice would have to show that it is not reasonable to compare seeing an object by seeing its reflection with hearing an object by

hearing its sound. This could be done by showing that sounds are real particulars produced by physical objects, but reflections are not. But until this is done, Grice's argument is inconclusive.

Grice's other example is much stronger. He writes (p 142): "Suppose that it looks to X as if there is a clock on the shelf; what more is required for it to be true to say that X sees a clock on the shelf? There must, one might say, actually be a clock on the shelf which is in X's field of view . . .. But this does not seem to be enough. For it is logically conceivable that there should be some method by which an expert could make it look to X as if there were a clock on the shelf when the shelf was empty; there might be some way in which X's cortex could be suitably stimulated, or some technique analogous to post-hypnotic suggestion. If such treatment were applied to X on an occasion when there actually was a clock on the shelf, and if X's impressions were found to continue unchanged when the clock was removed or its position altered, then I think we should be inclined to say that X did not see the clock which was before his eyes, just because we should regard the clock as playing no part in the origination of his impression." It will be noticed that Grice thinks that what I have described as a man's having a sense-experience is the same as its seeming to him that something is the case. Whether this is so, and in what sense of "seems", I will consider later in this thesis, as I said in Ch. 3. Martin, in his book "Religious Belief", advances a similar argument, but calls the having of a visual sense-impression "the having of a visual response". He writes

(p 109): "Someone is sitting looking at a patch of light. An expert physiologist knows that if he inserts a very fine needle into a particular area of the person's brain that person will have a visual response exactly similar to his visual response to a patch of light. While the subject is still looking at the patch of light, the physiologist inserts the needle and at this moment the subject closes his eyes. The subject notices no difference, the visual reaction is the same as it was, and the patch of light is still before him on the wall. Does he still <u>see</u> the patch of light? Surely not, because now the existence and nature of the patch has <u>nothing</u> to do with his visual reaction. Indeed, it might as well be no longer before him."

I think these arguments (their content is virtually the same) are fatal to the judgment and representation theories of perception that I outlined - obviously so. For part of the strength of Grice's and Martin's arguments is that they make it clear that the experiences involved in perception and hallucination may have little or nothing about them to distinguish them apart. So what distinguishes hallucination from perception must be the absence of some other factor or factors, and it is plausible to say that this or these must relate to the way the experience is brought about. Now the theorist who declares that perceiving a physical object is making a judgment about it of some kind cannot deny that exactly the same judgment may be made by a hallucinated man - in the Grice example it might be "That's a big clock on the shelf!" Again, as the Grice and Martin examples show, a man's sense-experience may represent reality (as both their expert-beset subjects prove to us) and yet still

be hallucinatory. It seems then that both these theories cannot stand in the form they are cast in, but need supplementation if they are to be plausible. Take the theory that perception is judgment. If this is so, and, let us say, the perception of a pen that I am now experiencing consists in my judging "There is a pen in front of me", or something of the kind, then by a like argument, if a blind man judges that there is a pen in front of him, he will be perceiving it, even if the only reason for his judgment is his having been told there is one in front of him. It seems that the judgment theorist must add some further conditions, over and above those relating to judgment, to his account of perception. For whatever type of judgment he may offer as peculiar to perception, the same will be found to occur when no perception need be taking place. And it is plausible to suggest that the further conditions will contain reference to the way the perceived object brings about the judgment that is involved in its perception. In the case of the hallucinated man, the clock does not play a part in bringing about his judgment in the way it would in bringing it about if he saw it. The pen does not affect the blind man in the way it affects me: it is plausible to say this is why I perceive it, and he doesn't, given that we make the same judgment. As to the representationalist, like Grice he may conclude that what separates the hallucinated man from the perceiver, when each has a sense-experience that represents an object as well as the other's, is that the object represented stands in some causal relation to the perceiver when it is perceived. For this is indeed the case in the example of the

man who is subjected to the expert's attentions - his having the sense-experience he does is not due to the presence and nature of the clock on the shelf.

The point that is to be found in what both Grice and Martin say, that the experiences involved in hallucination and perception may be indistinguishable, is enough to undermine these two theories of perception, then, and to recommend their alteration into causal theories, each giving its own version of the nature of the sense-experience involved in perception - the having of a representation in one case, the making of a judgment in another. We shall consider these versions of the causal theory at a later stage in this thesis. There remains for consideration the view that perception is an unanalysable notion. Now the theorist who holds this view must challenge the view implicit in what Grice and Martin say, that the experience in perception may not differ from that in hallucination. And, unlike the other two theorists who could scarecely fail to agree with Grice and Martin, the philosopher who holds that perception is an unanalysable relation between person and thing can advance a case against them which has some plausibility. Unless he does, his theory collapses: for he cannot deny that the unanalysable relation he talks of must be identical with what we have called the experience involved in perception, since it is undeniable that whenever one perceives one has a sense-experience, and on his view there is no complexity in perception. So if at least one phenomenon occurs whenever we perceive, that phenomenon, he must agree, is the perceiving. The theorist should, then argue as follows: "The experiences men have in

perception and in hallucination seem very similar to the persons who have them, and for this reason it is reasonable that we should, as we do, have a set of expressions that describe experiences of either kind without distinction - "it seems as though p", and cognate locutions, when employed in one of their senses. But the truth is that there are two very distinct kinds of mental phenomena here: there are perceptions, and there are hallucinatory experiences. These are in themselves quite different types of mental phenomena, though it is hard for one undergoing them to distinguish them." The theorist thus contends that perceptions, which are one sort of sense-experience, are quite different in nature from hallucinatory experiences, which are another sort. He does not, therefore, find himself forced into the position of seeking some other factor to distinguish perception from hallucination, as the judgment and representationalist theorists did. Though he may have to face some difficulties concerning the way we are supposed to distinguish perceptions from hallucinatory experiences, if they are so similar.

But the theorist has now to meet Grice and Martin's main point. He has said that perception is an unanalysable relation between a person and a physical object. But they have argued that one cannot perceive a physical object unless it plays a part in causing one to have a sense-experience. Their example is that of the man whose experience is produced by an expert's tinkering with his brain. Now it seems clear to me that in this case we deny that the man perceives a physical object, just because that object plays no part in the origination of his

sense-experience. How can the theorist avoid drawing the conclusion that Grice and Martin do, that the existence of the causal relation is a logically necessary condition of perception? The only way I can see is if he argues that in the case in question we decide that the sense-experience the man is having is not a case of perception, i.e., that in this case the unanalysable relation of perception does not obtain between man and object, because the causal antecedents of the sense-experience do not involve the physical object in question (nor, indeed, any physical object in the required way.) For we know that, as a matter of fact, a man never stands in the unanalysable relation of perception to a physical object unless that object affects him in some way. That the object should affect the man is a causally necessary condition of his perceiving it, not a logically necessary one. Is this suggestion plausible? If the theorist is right, it is not logically impossible that the man in the examples does see the clock on the shelf or the patch of light. But this is false. It is not just a matter of fact that when we perceive objects, they cause us to have sense-experiences. It is not the case that situations such as Grice and Martin describe just don't happen to be cases of perception: we can see from the very description of them that they could not be such, whatever the facts of nature might be. The examples Grice and Martin provide persuade me that the fact that a physical object plays no part in the origination of a sense-experience is not merely evidence, but rather a logically sufficient reason, for saying that any perception which the sense-experience is involved in is not a

perception of that physical object.

So it seems to me that the view that perception is an unanalysable relation fails, because perception has been shown to be some sort of being caused to have a sense-experience. And if we cannot perceive unless the object of perception causes us to have a sense-experience, the views that perception is judgment or the having of representations (and nothing more) must be wrong, too. This has been shown to be the case by reference to examples in which, using our everyday terms of reference, we conclude that a physical object is not perceived because it plays no part in producing a sense-experience in some individual. We have seen, then, that there are good reasons for accepting the thesis about perception that I proposed for discussion, that A cannot perceive X at t unless X helps to bring it about that A has a sense-experience at t. But before accepting it as correct, we will have to be satisfied that certain criticisms that have been levelled against it do not succeed. I shall therefore proceed to examine these.

The first set is to be found in A.R. White's reply to Grice in the A.S.Symposium "The Causal Theory of Perception" (A.S.Supp.Vol. 1961). There White declares (p 159): "If we suppose that it is sometimes true that someone sees (or in any way perceives) a particular material object, X, e.g., the word "gaol", a snake, and also true that it looks to him as if there were a . . ., then . . . there appear to be two possibilities. Either it looks to him as if there were an X (e.g., the word "gaol", a snake) or it looks to him as if there were something other than X (e.g., the word "goal", a stick.) According to

Grice's version of the causal theory it follows that it is true in each of these cases that the existence of the material object X (e.g., the word "gaol", a snake) "causally accounts for" its looking to him as if there were a . . . . I argue against this that when someone sees an X and it looks to him as if there were an X, then the existence of X does furnish an explanation, though not of course a complete explanation, of its looking to him as if there were an X but does not furnish a causal explantion; and that when someone sees an X and it looks to him as if there were something other than an X, then this has a causal explanation, though it also is not a complete explanation, but that it is not furnished by the existence of X."

White deals first with the first-mentioned case. He writes: (pp 161-2): "I want to hold that the explanation of its looking to him as if there were, e.g. the word "gaol" (a snake, a bush) when he sees e.g., the word "gaol" (a snake, a bush) is that he sees what he sees in normal conditions and it is an analytically true statement that the word "gaol" (a snake, a bush) looks to normal persons in normal conditions as if it were e.g., the word "gaol" (a snake, a bush) . . . . To say, as we may, that it looks as if it were the word "gaol" because it is the word "gaol" is not to say that the word "gaol" "causally accounts for" its looking like this, but is to explain it be reference to the above analytical truth."

White then deals with the other case. He writes (pp 163-4): "Suppose that someone is reading a passage in a book: he comes across the word "gaol", but it looks to him as if there were the word "goal". What sort of causal explanations would we give of

this? Well, we might say that the two words are rather similar, the printing is rather poor, that the right word in the passage would have been "goal", that the reader was in a hurry or inattentive or poor at English, or that for some reason he wanted or expected the word to be "goal". But surely we could not say that the cause of its looking to him as if there were the word "goal" was the presence or the existence of the word "gaol"."

White, then, argues that in neither of the possible types of cases is it plausible to suggest that the perceived object is mentioned in any correct causal explanation of the occurence of the sense-experience involved in its perception. But neither of his arguments seems to me to have any weight. Let us deal with the first argument first. It strikes one immediately that the explanation of its looking to a man as if there were the word "gaol" that he provides is, in fact, only applicable in a certain set of cases - those where the word "gaol" is perceived in normal conditions. So White has not shown how it is that the existence of an X furnishes an explanation of its looking to a man as if there were an X in every case where the man sees an X and it looks to him as though there is an X. For he ignores the fact that even in abnormal circumstances it can be true of a man both that he sees an X and that it looks to him as though there is an X. (Unless it is part of his account of A's seeing an X in normal conditions that it should look to A as though there is an X. But then his suggested explanation would be no explanation at all. For it would then be of the form: "Why does it look to him as though there is an X?

Because he sees an X under conditions one of which is that it looks to him as though there is an X, and it is an analytically true statement that an X looks as if it were an X under conditions one of which is that it looks as if it were an X". But White surely cannot be falling into this error.)

But more significant criticisms can be advanced against White's argument. For, first of all, it does not seem to be true, let alone analytically true, that an X looks to normal people in normal conditions as if it were an X. (Unless we trivialize the statement by giving the sort of account of normal circumstances for perception that I mentioned above.) It may be true that an X usually looks like an X when perceived in normal conditions, but it does not always have to look so. White's own example of the word "gaol" can be used to show this. On p 119 of "The Philosophy of Perception", ed Warnock, (in the Oxford Readings in Philosophy series), a misprint occurs at the beginning of the second line. In reproducing White's article, the word "gaol" has been printed where the word "goal" is needed. (This misprint does <u>not</u> occur in the original, the A.S.Supplementary volume.) At first when I read the passage I did not notice this error: it looked to me as though the word "goal" was printed there. So I saw the word "gaol" but it looked to me as though "goal" was written there. According to White, this could only occur if I saw "gaol" in conditions other than the normal. But it seems to me that there was nothing abnormal about the conditions of my seeing "gaol". It may be said that they were abnormal in that I was prepared to see the word "goal", and this accounted for my misreading "gaol". But quite the reverse seems to be

true. Whenever we read, our grasp of the context is an inescapable and natural determinant of the way what we see looks to us. Thus, that the misperception and misreading occurred in, and because of, the presence of a certain expectation produced by the context, to the effect that the word "goal" was about to appear, does not mean that they occurred under abnormal conditions. What might be true is that the perception of words or things which occurred to a man who entertained expectations utterly unjustified by the context was perception in abnormal conditions. But it is clear that in the present case an expectation that the word "goal" was about to appear was eminently justified by the context.

The second criticism I would make of White's argument is that it runs glaringly against the facts. Who, apart from one wishing to hold a thesis at all costs, would wish to deny that one of the things responsible for its looking to A as though there is an X, in the circumstances of his seeing an X, was an X? If we trace back the causal processes leading to the sense-experience, will we not come to an X? Light-waves pass from the X to A's eyes, certain brain processes ensue . . .. Who could deny this? But this is enough to show that White is wrong to say that the perceived object can play no part in bringing about the sense-experience involved in its perception.

White's second argument seems equally weak. He asks how we might explain its looking to someone as though there were the word "goal" when what he sees is the word "gaol". He suggests, (correctly, I believe) that we might point out that "goal" and "gaol" look alike, that the misread "gaol" was badly printed, or was a misprint for "goal". But, I wish to inquire, what

relevance would these facts have to the explanation of the misperception unless it were supposed that the word "gaol" had played a part in bringing it about that it looked to the man as though there were the word "goal"? If the word "gaol" had nothing to do with the production of the sense-experience, how could its similarity to "goal" or its being badly printed, or a misprint, bear upon the explanation of the misperception? It could not. So I conclude that White has not succeeded in showing that Grice is wrong, and that the existence of the perceived object cannot account for the occurrence of the sense-experience involved in its perception.

A second set of objections to the causal theory is to be found in Mrs J. Teichmann's article "Perception and Causation". (PAS 1970-1). The first argument she advanced is this: "If we start trying to think of trees, chairs, the moon, etc., as causes of the perception of trees, chairs, the moon, etc., we at once come across a certain difficulty; namely, the fact that it is impossible to classify trees and chairs and so forth in terms of efficacy. One brick is just as good as another qua producer of perception: and whatever changes a certain brick might undergo, short of shrinking to the point of invisibility, or entering into a disembodied state, its capacity to produce perception does not vary . . .. No-one could classify material objects in such a way that they were listed in order of degree of power to produce perception . . .. Increase of light, changes in distance, all alter the <u>appearance</u> of an object, not its efficacy. We can contrast this peculiar character of the supposed causal power of objects to produce perception with the real power a saucepan handle acquires, loses, and has in varying

degrees, depending on its own state, and not merely on its relational properties, of producing burns. We do not regard the capacity to produce perception either as a common or as an uncommon property of material things: it is not analogous to "radioactive": "magnetic": "conducts electricity": etc." (pp 25-6).

I have two criticisms to make of this argument. First, its conclusion, stated in the last sentence, is false. For it is clear that we do distinguish some things as having the power to make themselves perceived, from others which lack this power. What is it to say that something is luminous, noisy, smelly? It is to say that it can, to use Mrs. Teichmann's terminology, produce perception. Sources of light often illuminate themselves, e.g., the sun, a lamp bulb within the field of view. All material objects that can move themselves have the power of making themselves perceived - they can bump into one deliberately, and make one feel them. Other things, not capable of self-initiated movement, can make themselves felt by the heat they give out. The sun, a lighted candle, a restless cat or dog, a noisy car, each of these has "the power to produce perception" and this power it has "depending on its own state, not merely on its relational properties". Indeed, we may say that all material objects have the power of making themselves felt, given that the perceiver places a sensitive area of himself in contact with them.

My second criticism relates to Mrs. Teichmann's intention in advancing the argument. Given, as is true, that many physical objects do not possess the power of making themselves

perceived (at least by all the senses), what follows from this that is relevant to the truth or falsity of the causal theory? If her argument is that it follows from the fact that there is no such thing as a "power to produce perception" that it is impossible to think of trees, chairs, the moon, and so on, as "causes of the perception of" trees, chairs, the moon, and so on, then she plainly fails in her purpose. For it is not a fact that there is no such thing as a "power to produce perception". But perhaps her argument could be re-stated as follows: "It is admitted that those things that have a power within themselves of making themselves perceived can be thought of as causes of their own perception. But we cannot so think of those things which lack this power. But if the Causal Theory is to be correct, this must be possible". However, this re-statement seems unacceptable, too. For we are quite willing to accept that C is the cause, or amongst the causes, of some event, E, even though C does not have within itself the power of bringing about such events as E. We may ask, for instance, what is the cause of puddles of water collecting in someone's back yard. A reasonable answer might be that there were uneven patches in the paving, or that there was a blockage in the drain that served the yard. But it is plain that neither the holes in the yard nor the blockage in the drain, though they might quite properly be cited as causes of the gathering of water in the yard, has within itself the power of producing this occurrence. If water did not find its way into the yard, the puddles could not appear. In just the same way, if the sun was not shedding its light, I could not now see this paper. The paper would not

illuminate itself. But this does not mean that the paper can play no part in bringing about the sense-experience involved in my now seeing it. Indeed, it is obvious that it does play its part. So I conclude that Mrs. Teichmann's first set of objections is unsuccessful.

Her second set is more interesting, and relates to the variety of things which we can properly be said to perceive. She suggests that it is impossible to conceive of some of these as acting on a perceiver so as to produce (as I would put it) a sense-experience. My reply to these objections must be deferred to chapter 8. It will be advanced as a part of what I believe to be the most powerful sort of recommendation of the type of Causal Theory that I am now suggesting is correct: the specification of a theory of this type which contains a satisfactory account of the perception of every type of object which it can plausibly be expected to explain. For, as we will see, the thesis that A cannot perceive X at t unless X helps to bring it about that A has a sense-experience at t, though correct, is not a complete account of the perception of a physical object. We must now consider whether any causal theory of this type so far advanced gives such an account. If not, I shall have to attempt to provide such an account myself.

SECTION 3. The Causal Theories of Hirst, Chisholm, and Grice.

We have seen that Grice, Hirst, and Chisholm have presented theories of perception that are on the right lines, correctly embodying the thesis that perceiving a physical object is being caused by it to have a sense-experience. But does any

of them succeed in giving a full account of perception that will stand scrutiny? Hirst in his book "The Problems of Perception" does not in fact attempt to define perception, so it is unfair to criticise him for failing to describe conditions sufficient for a man's perceiving a physical object. We may gather from what he says that he thinks that there is involved in A's perceiving X X's causing A to have a type of sense-experience which he describes in some detail. Now it is plain that more than this is involved in perception. For as Price pointed out many years ago ("Perception", p 70), every perceptual experience has many physical objects involved in its causation. In the case of seeing a table the light rays, the electric light (presuming the table is seen by such a light), the wires conveying the current to the light, the dynamo that generates it all play some rôle in the production of the perceptual experience. So it seems some further conditions must be added to the one that the perceived object cause the perceiver to have a sense-experience.

We find this is done by Chisholm, in his book "Perceiving". He defines "seeing", "hearing", etc., separately, and has no fear of employing technical terms in his definition. The definition he gives of "perceive" is as follows (p 149): " "S perceives x" means: x appears in some way to S". On p 148 he has defined "x appears . . . to S" as meaning: "(i) as a consequence of x being a proper stimulus of S, S senses . . .; and (ii) in sensing . . ., S senses in a way that is functionally dependent on the stimulus energy produced in S by x." A proper stimulus is defined as a stimulus of one of five types, proper

visual, auditory, olfactory, taste, and touch stimuli. A proper visual stimulus, for example, is defined (p 144) as follows: "We may say that x is a proper visual stimulus for S provided (i) that light transmitted from x stimulates a visual receptor of S and (ii) that this light, after being transmitted from x and before reaching the visual receptors of S, is not reflected." Chisholm does not define "visual receptor" but it clearly means "eye". Chisholm thus employs technical terminology of a sort about which everyday folk might well be ignorant. Grice criticises this type of method of defining perception with the following remarks (AS Supp. Vol. 1961 p 143): "If we are attempting to characterize the ordinary notion of perceiving, we should not explicitly introduce material of which someone who is perfectly capable of employing the ordinary notion might well be ignorant." I take Grice to be saying, not that an everyday concept A cannot be correctly analysed in terms of concept B unless the ordinary man if asked to analyse it would so analyse it, but rather than an everyday concept A cannot be correctly analysed in terms of another, B, if normal people who have A may not have the concept B. We may not be able correctly to analyse concepts that we possess, and possess beyond a shadow of a doubt: any philosopher knows that from his own experience. On the other hand, if a man may not have a concept B, it is utterly implausible for me to bring B into my analysis of a concept A, which he certainly has. I am in full agreement with Grice about this. As a result, I find Chisholm's analysis of perception quite unacceptable. For it is plain that a man without the concept of a light-wave or a sound-wave or of stimulus

energy could still know what perception was. Indeed, these scientific concepts have been developed in recent times, but we do not wish to assert that the many references to seeing and hearing, etc., in earlier literature are not really references to these phenomena at all. It is also clear that Chisholm's account is objectionable on other grounds, e.g., that it implies that what we call seeing things by reflection (e.g. in mirrors) is not seeing at all. For he demands, if S is to perceive x by sight, that the light transmitted from x should not be reflected whilst on its way to stimulate S's visual receptors.

How then does Grice attempt to describe the conditions sufficient for A's perceiving X? He writes (pp 143-4): "I suggest that the best procedure for the Causal Theorist is to indicate the mode of causal connexion by examples; to say that, for an object to be perceived by X, it is sufficient that it should be causally involved in the generation of some sense-impression by X in the kind of way in which, for example, when I look at my hand in a good light, my hand is responsible for its looking to me as if there were a hand before me, or in which . . . (and so on), whatever that kind of way may be; and to be enlightened on that question one must have recourse to the specialist. I see nothing absurd in the idea that a non-specialist concept should contain, so to speak, a blank space to be filled in by the specialist . . . We do not, of course, ordinarily need the specialist's contribution; for we may be in a position to say that the same kind of mechanism is involved in a plurality of cases without being in a position to say what that mechanism is." Grice's view of the perception of a physical

object is that it is that object's causing a person to have a sense-experience in the kind of way in which some specified objects severally cause people to have sense-experiences in specified circumstances. As Grice points out, a detailed account of the kind of way this is could only be given by a specialist, but all that the ordinary man is required to do when he ascribes perception to a person is that he should decide that what is happening in the case before him is relevantly similar to what happens in standard cases.

I don't wish to disagree with Grice's contention that we can know that the same mechanism is involved in a plurality of cases without being in a position to say what the mechanism is. One might quibble with the way Grice, in describing his paradigm case of perception, of his hand in a good light, assumes that one who looks at his hand in a good light cannot fail to see it; it might be that by the effects of post-hypnotic suggestion or some complex or other a man might fail to see his own hand even though he looked at it; again, it is assumed that there is only one way in which my hand, when I look at it in a good light, is responsible for my having a sense-impression of a hand. This might not be so. However, I take it that Grice is trying to describe an ostensive definition of the mode of causation. He imagines someone saying: "You want to know what perception is? Well, it's what occurs when a physical object causes one to have a sense-experience in the way that my hand is now causing me to have a sense-experience of a hand". (This being said whilst the man holds up his hand and stares at it). If this is what Grice is saying, then I think there is much truth in his

words. He is only attempting to describe conditions sufficient for perception: he thinks we should mention a set of paradigm cases of modes of causation, such that if an object thus causes a man to have a sense-experience, the man will perceive the object. It is not necessary, as he makes plain, that an object should produce a sense-experience, in any of the particular ways mentioned in order that it would be perceived. Or I take it that this is what he is saying. If he means to suggest that the modes of causation proper to perception are strictly limitable - for instance, to the ways in which the things we see, hear, smell, taste, and feel produce the sense-experiences they do, at this particular time, things being as they are, then I cannot agree with him. He would still be right, of course, in saying that the sense-experience does not have to be produced in any single one of these fashions to the exclusion of the others if perception is to take place, but he would be wrong in supposing that in order to be perceived a physical object must produce a sense-experience in a person in one - any one - of the ways in which these sense-experiences are now produced in us when we perceive. For it is plain enough to me that the physical processes involved in seeing could alter quite considerably, and yet we would not wish to say that seeing occurred no more. Or if we found a set of people, recognizably human, whose eyes, we discovered, performed no function, but whose foreheads were sensitized to light-rays so that they had the same sort of sense-experiences as we have in vision, would we not say that these people enjoyed the power of sight?

But I don't think Grice holds this view, that one perceives

a physical object only if it produces a sense-experience in one by some one of the ways in which physical objects produce sense-experiences in people at present when they perceive. Rather, his view is that the list of paradigm cases is open-ended. I think he is wise to hold the latter view; but I think that either view holds the seeds of its own destruction. For, it may be asked, why, amongst the ways in which objects produce sense-experiences, should a few (the way in which my hand produces a visual sense-experience when I look at it, the way in which it produces an auditory sense-experience when I strike it on my other hand, etc.) be singled out and classed together as the ways proper to perception? And if we are prepared to extend the list of modes, as I suggest we are, what is the rationale of the extension? Surely there must be a rationale. I conclude that Grice describes a way of advancing sufficient conditions for perception, but that by failing to grasp the rationale by which we decide whether a certain mode of causation of sense-experiences is proper to perception, he renders himself unable to give a general account of perception. I shall try to give an account of the conditions jointly sufficient and separately necessary for the perception of a physical object, in general terms, without reference to the particular ways in which our sense-experiences are now produced in perception. Thus, I shall neither specify these in the manner that Chisholm does nor state that ostensive definition is of necessity involved when we try to give an account of perception.

SECTION 4. Conclusions.

My conclusions in this chapter are twofold. First, that one version of the causal theory of perception is correct, the one embraced by Grice, Chisholm, and Hirst, to the effect that A cannot perceive X at t unless X helps to bring it about that A has a sense-experience at t. (It is understood that the having of a sense-experience is not to be construed as the having of a sense-datum, at least not in the context of those sense-datum theories criticised in Chapter 3.) Second, we have seen that neither Hirst nor Chisholm nor Grice gives a satisfactory account of the perception of a physical object. Hirst does not really try; Chisholm resorts to technical terminology; Grice describes sufficient conditions, but renounces any attempt to give his account the generality which it cries out for. I will now attempt to give a satisfactory causal account of perception, and to do this will range widely in my discussion, though in the end I will return to a position close to Grice's.

CHAPTER FIVE: THE NATURE OF HAVING A SENSE-EXPERIENCE, PART ONE: IS IT HAVING A BELIEF?

SECTION 1. Introduction.

In the last chapter we concluded that it was a necessary condition of A's perceiving X at t that X played a part in bringing it about that A had a sense-experience at t. As we had seen that one version of The Causal Theory was based on this assertion, we concluded that some causal theory of this type must be correct. But when we considered those that had been advanced, we found that none of them gave a satisfactory account of the perception of a physical object, though Grice's views seemed to contain a great deal of truth. So we decided to attempt to formulate an account of perception containing the condition we found to be necessary, but proof against objections of the sort which arose against the theories of Hirst, Chisholm, and Grice.

I suppose that this enterprise should begin with an attempt to clarify the nature of having a sense-experience. The account we have given of this phenomenon has up till now been deliberately thin. This was because we found there was general agreement amongst philosophers that there was a sort of experience peculiar to perception, and without the occurrence of which perception could not take place. (But we decided there was more to perception than simply having this experience - in Chapter 4, section 2.) There was disagreement, however, as to the nature of this experience. So, in order that we might consider whether this experience, whatever it was, had to be produced in a certain

way if a certain object was to be perceived, and in order that we might do this without prejudicing our answer by becoming involved in controversy about the nature of the experience, we restricted our description of it to the expression "the having of a sense-experience", this meaning no more than "the having of the peculiar sort of experience without which perception cannot take place." But clearly if we wish to give a proper account of perception, we must specify the nature of having a sense-experience in other terms. The problem that faces us, then, is to specify the nature of the experience which A must have if he is to perceive X. We should also enquire whether X's playing a part in bringing it about that A has such an experience suffices for A's perceiving X. If so, our search for an account of perception will cease with our giving an account of the having of a sense-experience. If not, it will continue even though we establish the nature of the experiential element in perception. The first suggestion I want to consider is that having a sense-experience is having a belief of some kind, or, perhaps, having a tendency to acquire a belief of some kind. This will be the subject of this chapter.

SECTION 2. Perception as being caused to acquire a belief or tendency to believe.

In the last chapter we briefly considered the view that perception is nothing more than judgment, and suggested that it was more plausible if reformulated as the theory that perception is being caused by the perceived object to make a judgment of some kind.

This theory holds that to have a sense-experience is to make a judgment of some kind, then. One who seems to have progressed from the less attractive to the more attractive of these positions is Professor D. M. Armstrong, who in his book "Perception and the Physical World", and more recently "A Materialist Theory of the Mind" has argued that perception is a matter of acquiring beliefs. Only in his latest book does he clearly step forward as a causal theorist, a tendency which, is, however, to be found in his earlier book on perception.

Armstrong's most recent discussion is in Chs. 10-11 of "A Materialist Theory of the Mind". I shall be concerned with what he says in Ch. 10 where he argues (to use his own words) "that an account of perception can be given in terms of the acquiring of beliefs about the physical world". (Loc. cit. p 208) In Ch. 11 he goes on to argue that these acquisitions can be analysed as "states of the person apt for the production of certain physical behaviour, or states apt for being brought about by certain physical objects or situations." But the analysis Armstrong gives of belief and its acquisition might well be wrong whilst his contentions about its relation to perception were correct. So I shall ignore Ch. 11.

Armstrong begins by saying that perception is the acquiring of true or false beliefs about the current state of our body and environment. He points out (p 214) that this account meets the objection that perception cannot be belief, for perception is an event whilst belief is dispositional. For the acquisition of a belief is an event. But then he faces a more serious objection (p 216): "There are cases where perception occurs, but there is

no acquiring of true or false beliefs". The examples he gives are of two types - "perception without belief" and "perception without acquiring of belief". (In the title he gives to the second type, stress should fall on the word "acquiring" to bring out Armstrong's meaning, as will become clear. But his choice of titles strikes me as unfortunate and confusing.) The first type of case includes those occasions when we perceive something, but acquire no beliefs about it, and this failure to acquire beliefs is not due to the fact that the only beliefs that we might have been led to acquire in the situation were ones we already had. The cases of perception without acquiring of belief, as he calls them, are of the following type: "if I am looking at a red book, I may know with perfect certainty that it will continue to be red in the next instant. So when my eyes still rest upon the book during that instant, I cannot be said to acquire the true belief that it is now red, because I already knew it would be red during that instant." (p 216).

The upshot of Armstrong's consideration of such cases is that he amends his account so that perception is said to be the acquisition of an inclination to believe things about the current state of our body and environment, or the acquisition of potential beliefs of this kind. He points out (p 221) that "if a thing looks to be a certain way, although we know on independent grounds that it cannot actually be that way, we may still half-believe, or be inclined to believe, that it is as it looks." But then, as when one sees oneself in a mirror, perception can occur without even the inclination to believe (that there is a person in front of one) arising in one, Armstrong declares. But what happens

here, Armstrong suggests is that "an event still occurs in our mind, an event which can be described as one that would be the acquiring of a belief but for the existence of other, contrary, beliefs that we already hold. The event might perhaps be called the acquiring of a potential belief. We come to be in a certain state which would be a belief state but for the inhibiting effect of other, contrary, beliefs". (p 223). And in the cases of perception without acquiring of belief, something similar occurs: a potential belief is acquired, but here the event is one that would have been the acquiring of belief if belief had not already been acquired". (p 224).

Armstrong concludes his account of perceiving a physical object by distinguishing perceiving that p from perceiving x. To say that A perceives x is, according to Armstrong, to say that information or misinformation <u>about x</u> is acquired, but not to specify this input further (p 228). Moreoever, he declares: "If A is said to perceive an x, then it is entailed that x (sic) is the cause of A's perceptions, whatever these are". (p 229) But having gone so far, Armstrong abruptly declares: "What must be added to the causal condition to give necessary and sufficient conditions for saying we perceive an X? I do not know the answer. A further condition seems to be that there must be some <u>resemblance</u>, even if slight, between the perceptions and the object said to be perceived". (p 230) I take it that by this Armstrong means that we must acquire a belief or potential belief that there is something with certain characteristics, and the object perceived must have at least some of these characteristics.

So Armstrong's picture of A's perceiving X seems roughly to

be as follows: "A's perceiving X is a matter of X's causing A to acquire a belief or potential belief that there currently exists an object with certain characteristics; and X exists, and has a fair number of those characteristics." We must take into account the fact that he does not claim that it is the full picture. Now before asking whether Armstrong has correctly described the experiential element in perception that is indubitably there, and which we have called the having of a sense-experience, we should note not only what Armstrong admits, that his account does not provide conditions sufficient for perception, but also that however we specify the conditions relating to the nature of the beliefs which he considers essential if perception is to occur, these conditions along with the condition that X must effect A so that A has beliefs of this type will not together ential that A perceives X. The reason is plain. Imagine I had not seen this page, but you had and you described it to me, and I believed you. I would then be acquiring beliefs, which might be very exact, about the page, and the page would have played a part in bringing this about. For if it had not acted on you when you saw it, you could not have described it to me. And I believe that however the content of the supposed beliefs is specified, we will be able to find counterexamples of this sort.

Let us now turn to the question whether the having of a sense-experience is the acquisition of beliefs or potential beliefs. The suggestion that such acquisitions are the whole of the experiential element in perception seems to me to be obviously false. For must there not be another type of mental phenomenon, quite other than belief, which must occur in my history at the time when I perceive something? This element has been referred

to in various ways - direct awareness, sensing of a sense-datum, sensing in a certain way, sensory awareness - by different philosophers, but most have agreed that it must be there. I shall myself attempt to give an acceptable - and readily comprehensible - description of this element in the next chapter. I think most of those who have believed that one cannot perceive a physical object unless one makes a judgment or acquires a belief have agreed that there is a further experiential element in every case of perception. What I shall now do is to consider this view: that the experiential element in perception which we have called the having of a sense-experience is a complex phenomenon, which is in part the acquisition of some belief. I shall do this by asking whether the perception of a physical object can occur without the acquisition of some belief.

SECTION 3. Is there a necessary connection between perception and belief?

There is considerable plausibility in the suggestion that a man cannot perceive a physical object at a particular time unless he acquires some belief, or has some belief reinforced, at that time. Several significant modern philosophers have advanced this view. A classic theory of this form is that of Thomas Reid. In the second of his Essays on the Intellectual Powers of Man, the fifth chapter (of the Essay "Concerning the powers we have by means of our external senses") is devoted to his views on perception.

He says there: "If, therefore, we attend to that act of our mind which we call the perception of an external object of

sense, we shall find in it these three things: - First, Some conception or notion of the object perceived; Second, A strong and irresistible conviction and belief of its present existence; and, Third, That this conviction and belief are immediate, and not the effect of reasoning." It might be doubted whether Reid meant the same by the word "perception" as we do, i.e., the genus of which seeing, hearing, etc., are the species. Perhaps by "perception" Reid meant something like what Price suggests he does, i.e., what Price himself calls "perceptual consciousness", which Price rather obscurely describes as a non-sensuous bringing before the mind of the subjects of subsequently acquired beliefs, the being under the impression that something is the case. ("Perception", pp 21-3, 140). But I think Price must be wrong, and by "perception" Reid does mean the genus of seeing, hearing, etc. For after the passage quoted above, Reid continues: "It is impossible to perceive an object without having some notion or conception of that which we perceive . . .. We have commonly a more clear and steady notion of the object while we perceive it, than we have from memory or imagination, when it is not perceived. Yet, even in perception, the notion which our senses give of the object may be more or less clear, more or less distinct, in all possible degrees.

"Thus we see more distinctly an object at a small than at a great distance. An object at a great distance is seen more distinctly in a clear than in a foggy day. An object seen indistinctly with the naked eye, on account of its smallness, may be seen distinctly in a microscope."

Here the examples of perception given by Reid are those of seeing things, just the sort of examples of perception I would give to exemplify my use of the term. The passage just quoted also illustrates the dual rôle of the notions and conceptions of things that Reid mentions. Like Locke's ideas, they are both what we would call concepts and what have been called sense-data or presentations of sense.

Two modern writers on perception take a similar line to Reid, but they are more guarded in their statements. After defining "S sees x" as "as a consequence of x being a proper visual stimulus of S, S senses in a way that is functionally dependent upon the stimulus energy produced in S by x", Chisholm continues ("Perceiving", p 150): "Perhaps we would not want to say that a man sees an object x unless, in addition to sensing in the required way, the man also took the object x to be something . . .. To make our definition adequate to this felt requirement, we have only to add the qualification

and states x to have some characteristic."

Don Locke, too, amkes the presence of a belief necessary to perceiving a physical object. For he says perceiving - that is necessary to perception. ("Perception and our Knowledge of the External World", p 32). Of perceiving - that he says: "Let us say that to perceive that p is to consider p to be true of the things I notice, where either I considered p to be true because I now notice them, or would consider p to be true for this reason if I did not already consider it true for other reasons."(ibid p33) We may thus see that, according to Locke, A's perceiving that p does not entail p's being true. This seems to me to be an obvious

mistake. The phenomenon mentioned here which Locke thinks is necessary if we are to perceive physical objects is not correctly described as "perceiving - that". Put in more acceptable terms, what Locke is here saying is necessary if we are to perceive physical objects is that we should hold some beliefs about the things we notice, where we hold these beliefs because we now notice them, or would hold these beliefs (if we did not already hold them) because we now notice them. (Locke gives no account of the concept of noticing, which he uses here.)

Must I then hold some belief about what I perceive if I am to perceive it? Clearly I do not have to make a correct identification of the object of perception - I can see John but take him to be Jack, or see a scarecrow but take it to be a man. Nor, if my belief about the object of perception relates to its characteristics, does my belief have to be true: in a certain light I may take it that a brown dress is black; I may think that I have put my hand in cold water, when the water is in fact warm, if my hand has previously been immersed in very hot liquid. Chisholm and Locke accept such facts as these, and suggest that all that is necessary if A is to perceive X at t is that A should at t acquire some belief about X or have some belief about X reinforced. But are they right even to demand this much? A problem is to know exactly what they are demanding. For what is to count as having a belief <u>about</u> X? If I see John, and as a result come to believe that John has grown fatter, then clearly in perceiving him I have acquired a belief about John. But what of the case where I see a mouse, but only for a second,

so that all the belief I acquire is that something moved across the floor: have I here, in perceiving the mouse, acquired a belief about it? It is true that the thing that moved was the mouse, and I believe that something moved, but if I am asked "What was it that moved?" I can give no answer, I can in no way specify the thing. In the same way I may hear noises in the next room which lead me to believe no more than that some man or animal is moving around. Suppose it is, in fact, Jemima, my cat, that is moving around. Is my belief a belief about Jemima? And it is plain that in many cases of perception of physical objects the belief we acquire is only about the object perceived in the way in which the two beliefs I have just described are about the mouse and Jemima respectively.

I think, in fact, that in cases such as these it is hard to say that the perceiver acquires, or is reinforced in holding, any belief about the object of perception. However, I wish to give the philosophers I am criticising the benefit of the doubt, and will suppose them not to have denied that perception takes place in cases like these. What I will consider is whether a man can perceive a physical object if he is not at the time he is perceiving it acquiring, or being reinforced in, any belief at all about himself or the world around him. If I can show that he can do this, I think I will have completely exploded the thesis that perception involves belief, in whatever form this thesis may be presented. I think I can show this, and will present my arguments in a critical discussion of a recent valuable contribution on this subject. Afterwards I will support my position by meeting certain objections.

SECTION 4. Professor Dretske on Non-epistemic Seeing.

Professor F.I.Dretske in his recent book "Seeing and Knowing" confines himself to the visual sort of perception. In the second chapter of his book he discusses "non-epistemic seeing", as he calls it. This is contrasted with epistemic seeing, which is, roughly, seeing that something is the case. What he means by "non-epistemic seeing" can be understood when we grasp his notion of positive and negative belief content. He writes (p 5): "Let S be some sentient agent, and let "S. . ." be some statement about S. . . If the statement "S . . ." entails that S has a particular belief, or set of beliefs, then we will say that the state of affairs expressed in the statement has a positive belief content. If the statement entails that S does not have some belief, or set of beliefs, then the situation is one of negative belief content."

Professor Dretske uses these notions in the following way: he argues that there is a fundamental visual ability the exercise of which is devoid of positive belief content. That is, there is a way of seeing such that for any proposition P, the statement "S sees D" does not entail the statement "S believes P". These statements of Dretske's are of interest to me because in his view these exercises of visual ability without positive belief content are those mental phenomena we would describe as "our perceivings of physical objects". Dretske supports his case that it is not a necessary condition of our perceiving a physical object that we should have a particular belief or set of beliefs by reference to a series of examples. He first points out that one can see, say, a screwdriver without identifying it as such. But, as he continues, further mistakes are possible. I can mistake a human being for a dummy, a shadow, or other things. Indeed, I do not even have to take the thing I see to be a physical

phenomenon. As Dretske points out, one may see something, e.g. a face at a window, but fail to believe that there is such a thing there, thinking rather that one is imagining things. We can, indeed, think of odd situations where people are placed in odd situations without knowing it, and may thus be led to think they are dreaming, or being hallucinated, when in fact they are perceiving physical objects. Imagine that a man goes to bed in Ealing one night, falls asleep, and is then drugged and transported to the forests of equatorial Africa. When he comes round he sees lush vegetation, snakes, inquisitive pygmies. But his likely response would be to think that he was dreaming, or had gone mad, not to believe he was seeing these things.

I think, then, that Dretske is right in supposing that the perception of a certain physical object is compatible with any belief whatever about it, for what one makes of what one sees is largely dependent on the background of beliefs that one possesses. And this background can be infinitely various - and strange. However, it may be said that though these arguments prove what Dretske sets out to show - that there is no particular proposition entailed by the statement that a particular man is seeing a particular physical object - they do not prove what I set out to show, that a man may be perceiving even though at the time of perceiving he is not acquiring, or being reinforced in, any belief at all about himself or the world around him. But I think certain arguments which Dretske goes on to advance (though not, I believe, with the intention of proving the thesis I support) lead us to the conclusion that my stronger thesis is correct.

We may begin by noticing two of these examples provided by

Dretske. One is that of the person who reads a book. (p 11). Presumably to understand a book one must see and distinguish the great majority of the words on its pages. And to see the words one has to see the letters. But is it at all reasonable to suggest that in reading a book a person acquires some belief about each of the words, let alone about each of the letters composing them? Another example Dretske provides is of the preoccupied man. He may walk down a street, and afterwards remember nothing about the people, shops, cars, etc., that were there - all he may have is a generalized memory that he has seen things. He cannot remember having acquired any information about the individual things he has seen.

Starting from these examples, let us discuss the matter more generally. In what circumstances, if it is granted that a person is not acquiring a belief or having one reinforced at a time, would it be plausible to suggest he was, nevertheless, perceiving a physical object at that time? One circumstance occurs when two factors are combined: a person's being preoccupied with his own thoughts and feelings, as opposed to the things going on around him, and his being in an excellent position to perceive some readily perceptible physical object. Let us suppose a philosopher goes into his study, intent on working out a problem. He paces back and forth, his eyes fixed on the floor. Let us suppose the floor is covered by a carpet. In this situation, provided the phislosopher is not blind, or does not suffer from some sort of "psychological blindness" with regard to his carpet, (which would seem an unlikely phenomenon, anyway), we would agree that he sees the carpet. But we could also suppose that

at the time he was seeing the carpet, he had no thoughts about his room and its contents, or of his own present condition, so that if afterwards he was asked what he had seen whilst in his room he would have to say "I must have seen the carpet, the desk, the window . . . " In other words, he would have to reconstruct what he saw from his previously acquired knowledge of the contents of his room and his beliefs about what one could not fail to see amongst these. The whole of his mind at the time he was in his room might have been taken up with arguments about the problem. This is one situation where it is quite reasonable to suppose that a man is perceiving a physical object without acquiring, or reinforcing beliefs about his environment or himself.

The second situation I will describe is far more common, and Dretske's example of the man reading the book falls into this set of cases. These are cases where we exercise a certain skill which cannot be exercised effectively unless objects are perceived, yet the exercise does not involve intellectual processes, and is usually not accompanied by any. Take the case of a man peeling a potato: he plies the knife in such a way as to remove whatever skin remains on the potato, and to excise the bad bits from it. Take the moment when he cuts out a bad bit. He must have seen it, this dark area in the potato. Otherwise he could not have known where on the potato to direct his knife so as to cut it out. Do we have to suppose that he learns anything about the potato, the bad bit, or his own mental condition, at the time he cuts out the bad bit? May he not be listening to his transistor, enjoying a record that is being played? And if he

is asked, straight afterwards, about what he has been doing, he may only be able to give the thinnest account. It is not as if he is in the position of a man who has been told to watch a piece of film for thirty seconds so as to be able to give as detailed an account as possible of what happens on it, as a test of his powers of observation. Our man peeling his potatoes may, out of boredom, have deliberately tried to soak himself in the music, and at the time he is cutting out the bad bit, may have been doing no more than enjoying a particular series of chords, to the exclusion of acquiring beliefs or having them reinforced. A similar example is that of a man going shopping. The way he avoids bumping into people, crosses the roads without getting knocked down, directs himself to the market, shows that he is using his eyes; but at the moment he avoids Mrs. X and Mr. Y, is it not possible that all that is going on in his mind is an attempt to remember if there is enough bread in the cupboard back at home, or an attempt to plan out the swiftest route between the shops he must visit? If he is asked, straight afterwards, what accretion to, or strengthening of, his beliefs has occurred in the last minutes' walk towards the market, may he not say (and be right in saying) that none has occurred? It is a characteristic result of our perceivings of physical objects that they effect such accretions and reinforcements, but this does not mean they always do. The type of example that seduces us into accepting that all perception involves such accretion or reinforcement is one where the object of perception is an object on to which the perceiver's attention has been drawn or fixed at a particular time. It is hard to see how, when his attention

has been drawn to or fixed by an object, a man can fail to acquire some sort of opinion about it. But in the cases I have described we do not pay any special attention to the things we beyond a doubt do perceive. Thus I believe we have found two sorts of cases - those of preoccupied people and people exercising non-intellectual skills - in which we can suppose that a physical object is perceived at a time when the perceiver is receiving no accretion to, or reinforcement of, his belifs about himself and his environment. (A third sort of case is that mentioned by J.F. Soltis on pp 32-3 of his work "Seeing, Knowing, and Believing". This is of perception of things at the periphery of one's field of vision. It seems quite possible that a man should not entertain any belief about the ash-tray with a cigarette burning away in it situated at the periphery of his field of vision, and yet should see it. We may well imagine that though previously his thoughts were not upon it at all, his attention is called to the ash-tray when the cigarette burns too short and falls out of his field of vision. This capture of the attention would naturally be explained, Soltis suggests, by the supposition that the man had been seeing the ash-tray.)

SECTION 5. Possible objections to my view.

I have argued that a man can perceive a physical object at a time even though he acquires no belief, and has no belief reinforced, at that time, concerning himself or his environment. I think the most plausible arguments against this view of mine are likely to be of the form: " "A perceives X" entails "A ϕ's X" and A ϕ's X only if A acquires, or is reinforced in holding,

some belief or other." The first example would be that A's perceiving X entails A's noticing X, and A cannot notice X unless he forms some opinion about X. That one who notices a stain on the carpet must indeed make some judgment about his environment does seem very plausible. White, indeed, goes further in his chapter on noticing ("Attention", Ch. 3), and suggests that when we notice something, we are struck by it, it makes an impression on us and we receive knowledge of it. (p 26). This seems to me to be nowhere as obvious as White supposes, and his taking it to be true seems to be to some extent dependent on false reasoning. My objection can be made plain by considering what White goes on to say: "To be struck by something in the sense of noticing it is to receive knowledge of it, to be able to tell what it is . . .. The reason why the statement that someone cannot tell or show what he has noticed is a contradiction is that to notice, e.g. what or where X is, implies being able to tell under some description what or where X is." (pp 26-7). Here White seems to argue from the truth that to notice that p one must know that p to the false conclusion that to notice, say, a rat, one must know that it is a rat, or something of the sort. But it is quite plain that we cannot argue from what follows from A's noticing that p to what follows from A's noticing X, when X is a physical object. Moreover, it seems we can find examples where A notices X but cannot identify or classify it correctly. A confirmed but insightful drunkard might notice a rat scurrying across the room but yet dismiss it as a creation of his besotted imagination. However, it might be said he could not be said to notice it

unless he believed that there was a pink shape there (or something of the sort), and this was a correct (but uninformative) description of the rat. Perhaps, if in a case like this we would allow that the person noticing the rat was able to tell under some description what it was when he said there was a pink shape there, we should withdraw our objection to White's statements. However, whether or not I may be completely mistaken about what I notice, surely I must have some opinion about it. It seems hard to deny this. Clearly, as White says (p 29) to notice something is to have our attention caught by it, and it seems impossible that once our attention is taken by an object we should fail to come to some sort of opinion about it. Perhaps, indeed, in order to notice X we must have our attention taken by X at least to the extent that we form some sort of opinion about it - this is a defining mark of noticing a physical object, one might think.

But even if this is the case, and to notice a physical object we must hold some belief about it, it will not follow that the same is true of perceiving a physical object. For perception can occur without noticing. White ("Attention", p 29f) gives a valuable list of the differences between perception and noticing. "Noticing", he says, is never the name of an activity, "perceiving" sometimes is, e.g. "seeing" sometimes means "keeping in sight". Again, "perceiving" may be the name of an achievement - "I tried to see it for ten minutes, and at last I saw it", the sort of achievement that may be the culmination of an attempt to detect something by sight, or to make a fine discrimination; what one notices, on the other hand,

strikes one out of the blue, so to speak. This is why, if something occupies the main part of our field of vision, we could not, (as White says), be said to notice it. This seems to be a more plausible reason than the one White appears to give, that in such a case there is no question of its being contrasted with or standing out from its surroundings. For we could scarcely be said to be struck out of the blue by something that we could not fail to perceive. Perhaps what White is thinking of is the situation where one object occupies all or nearly all our visual field. Here indeed there would be no question of our noticing it, though we might be said to perceive it, and we might be said to notice its properties, e.g., a man who is staring at the sky may suddenly be struck by the fact that its colour varies subtly.

The example White gives that seems to me to be the most significant is that of the situation where one is quite properly said to see all that is in one's field of vision, but one could not notice all the things so seen. I don't think White draws out the implications of this case far enough. For they are surely these: noticing involves the capture of the noticer's attention by the object noticed. And what normally occurs to a perceiver is that his attention dwells on only one or two of the objects he perceives at any time. This is the fact which makes it necessary that there should be perception without noticing. For me to perceive X, X does not have to take my attention, my awareness of it may be obscure, as one might say. It is a feature of human consciousness that there are usually more things at any time that we perceive than can take our attention.

So much for noticing and perceiving. Another possible objection, or pair of objections, one of which Dretske (p 9) notes, might be put as follows: "It is a necessary condition of my seeing X that it should look to me as though p. But its looking to me as though p is only a special case of my believing that p. To see that this is so one only has to consider examples of true statements like "It looked to him as though the pound would be devalued" where this statement is virtually equivalent to "He tended to believe that the pound would be devalued". Again, I cannot see X unless I see it as something - a dog, a cat, a furry animal, or whatever. But my seeing X as a dog is nothing more than my taking it to be a dog, this taking occurring when X is being perceived. For when we say "He saw that scarecrow as a policeman, that's why he ran away", what do we do but describe a belief he acquired, on seeing something? So there can be no perception without belief, after all."

The objection relating to "seeing as" I find difficult to judge. For it is not at all plain to me that we cannot see X without seeing it as something. The notion of "seeing as", in the sense here used, is not commonly found in ordinary talk, or even in intelligent, informed discourse. But even if it is allowed that to see X I must see it as something, it is plain that I can see X as an x without taking it to be an x. As White remarks ("Attention", p 57): "I may be said to see a distant star as a tiny speck because it looks like one, though I am in no way inclined to think it is one or take it as one." It may, of course, be true that one would not only see the star

as a speck but also be tempted to take it to be a speck if one did not have a certain background of knowledge. But one who has the knowledge suffers from no such temptation. Another case where there is no tendency to take a thing to be what we see it as is that of the duck-rabbit drawing : the man who sees the drawing as a duck does not take it to be a duck, neither does the man who sees it as a rabbit take it to be a rabbit. But it may be said that these cases of interpreting a picture are not standard cases of seeing as.

In the case of the phenomenon we call "its looking to me as though p",I am inclined to say that the occurrence of this phenomenon is indeed a necessary condition of a person's perceiving a physical object. And I will also admit that "It looks to me as though p" often means "I tend to believe that p", as, for instance, in the statement "It looks to me as though the bottom is going to fall out of gilts." But what I suggest is first that there is a sense of the expression "It looks to A as though p" in which there is no implication that A possesses a belief that p, when it is asserted that it looks to A as though p. This is the sense of the expression in statements like "It looks to one as though the stick immersed to half its length in water is bent, but one knows well that it is not". My second suggestion is that only in this last-mentioned sense of "looks" is its looking to A as though p a necessary condition of A's seeing X. I will discuss this sense of "looks" and other "appearing" words in the next chapter. So I conclude that these objections to my view that perception need not involve the acquisition or reinforcement of belief do not stand up to

closer scrutiny, whatever their initial plausibility.

SECTION 6. Conclusions.

The conclusions of this chapter can be stated briefly. We wished to discover the nature of the sense-experience which a man must have if he is to perceive a physical object. Could it, we wondered, be nothing other than the acquisition or reinforcement of some belief on the man's part? The conclusion we have reached is that not only is such an acquisition or reinforcement of belief not the whole of the having of a sense-experience (the perceptual experience must involve another factor, which will be described in the next chapter) but further it is not even necessary if perception is to take place. So it is not even involved as one factor amongst others in the having of a sense-experience. This being so, it was not hard for us to answer the other question, posed on p122, whether X's playing a part in bringing it about that A has such an experience suffices for A's perceiving X, where the experience is A's acquiring or being reinforced in some belief. For if, as is clear, A must have some other type of experience if he is to perceive X, then X's causing him to acquire or be reinforced in some belief cannot be sufficient for A's perceiving X.

CHAPTER SIX: THE NATURE OF HAVING A SENSE-EXPERIENCE, PART TWO: IS IT HAVING A REPRESENTATION?

SECTION 1. Introduction.

The representative or representational theory of perception is closely linked to the causal theory. In Chapter 4 I argued that the representative theorist should embrace the causal theory as well, if he wished to give added plausibility to his theory. The theory that would result would hold that A's perceiving X was a matter of X's playing a part in bringing it about that A had a sense-experience that represented X. I now propose to examine this theory, seeing that the thesis that having a sense-experience is acquiring or being reinforced in holding a belief has collapsed. I shall ask two principal questions, as I did in the last chapter. First, is it a necessary condition of A's perceiving X at t that A have a sense-experience at t that represents X; and secondly, if this sense-experience is brought about by the action of X on A, among other factors, does it follow from the fact that these conditions are fulfilled that A perceives X at t? But before we can even attempt to answer these questions, it is plain that we must give some account of what it is to have a sense-experience that represents a physical object. Different representative theorists might advance different accounts of this. I shall consider two suggestions as to the nature of the experience involved in perception which could be classed as suggestions that it is the having of a sense-experience that represents the object of perception. In both cases I will describe first the

proposed account of what it is to have a sense-experience and second the suggested way in which such an experience can represent a physical object.

SECTION 2. Two versions of the representative theory

(a) The sense-datum representative theory.

The sense-datum representative theorist gives a clear account of what it is to have a sense-experience. It is, he says, to have a sense-datum, to be intuitively acquainted with a non-physical particular that has certain features in common with physical things, e.g. sense-data are located in space, but not in physical space, and they appear and disappear at determinate points in time. Now we have already seen that this account of the nature of sense-experiences is unacceptable, so we are bound to reject the sense-datum representative theory. However, I want to discuss it here in order to point out two further difficulties it runs into when the way in which sense-data are supposed to represent physical objects is described. For it is natural for the sense-datum theorist to give the following account of representation: to have a sense-experience that represents a physical object is to have a sense-datum that resembles that object. The mind of the perceiver contains replicas of the things in the physical world that he perceives. These replicaas represent the physical objects because they share a large number of qualities with them.

Now these views about the way sense-data represent physical objects lead to difficulties if the sense-datum theorist combines them with either or both of two doctrines which are usually held

by sense-datum theorists. The first doctrine is the one that the qualities of physical objects can be divided into primary ones and secondary ones. According to this doctrine, not only is it the case that sense-data may not happen to share all the qualities of the physical objects that are severally their causes, but further there are a range of qualities which physical objects and sense-data can never have in common. These are the secondary qualities of physical objects, and comprise such qualities as their colour, temperature, and the qualities that they can be non-inferentially perceived to have by hearing, smell, and taste. One may indeed use the same words in describing physical objects and sense-data, and these words may in the case of physical objects refer to their secondary qualities, e.g. when one says a man is white, or a lump of sugar is sweet, and then goes on to say that this sense-datum is white, that one is sweet. But in cases like this, the word "white" and "sweet" have different significances when used of sense-data from those they have when used of physical objects. The sense-datum theorist will probably say that a man is white insofar as when percieved in normal circumstances he will cause the perceiver to have white sense-data, insofar as he has the power to produce white sense-data. The whiteness that is attributed here to sense-data will be said to be an unanalysable quality. There are then, according to the theory of primary and secondary qualities, a great number of characteristics that physical objects and sense-data never have in common. These are the secondary qualities. The primary qualities, such as shape, size, and position in space, are common to both physical

objects and sense-data. Can this doctrine be held along with the view that in perception we have sense-data that resemble the objects perceived, like replicas of them? It seems not. For in the cases of hearing, smelling, and tasting physical objects, if these forms of perception are supposed to involve the having of sense-data which are replicas of the things perceived, the qualities of softness, loudness, sweetness, sourness, etc., that the perceived physical objects have should also be possessed by their supposed replicas, the sense-data. But according to the doctrine of primary and secondary qualities that sense-datum theorists tend to hold, these are secondary qualities of physical objects, and as such are never possessed by sense-data. To attribute loudness to a physical object is to attribute to it the power to produce loud sense-data (in a different sense of "loud"). Such is the doctrine of secondary qualities. The doctrine cannot, then, be held along with the representative theory which states that the sense-data involved in the perception of an object are replicas of it. Of course, the sense-datum representative theorist may be willing to give up the doctrine of the primary and secondary qualities, but the doctrine has in the past been closely related to the sense-datum theory.

The second doctrine that is incompatible with a replica representative theory is the view that, e.g., when a man sees a stick that looks bent because it is immersed in water, he is having a sense-datum that is bent. This view is an essential feature of the sense-datum theorist's position. But "the stick's looking bent to the man" and "the man's seeing the stick"

are both descriptions (not equally informative) of the same phenomenon. So the sense-datum theorist is bound to say the man is having a bent sense-datum, but he is also bound to say that this datum, as being the datum involved in the man's seeing of the stick (as, on his theory, it is), is a replica of the stick. But if the stick is really straight, how can the datum, which is bent, be a replica of it? It may be said in this case that though the datum does not have the same shape as the stick it is supposed to be a replica of, it does have other common properties - enough to make it a replica. For, plainly, a replica does not have to resemble its original in every detail. But the difficulty remains that some of the things we perceive look quite different from what they are - for instance a man, seen through a pane of fluted glass. In this case of perception the sense-datum theorist could scarcely suggest that the datum that is supposed to occur would be a replica of the man. I don't think the sense-datum representative theorist can escape this difficulty, other than by importing the notion of a sense-datum's being a systematic distortion of a sense-datum that represents an object, and by saying that under certain circumstances it is enough that the sense-datum involved in the perception of an object be such a systematically distorted one. But this is to go beyond representationalism, and to give up the view that when A perceives X he must have a sense-datum that is a replica of X.

These two arguments I have advanced are not, I think, conclusive refutations of the view that the perception of a physical object involves having sense-data that resemble it,

but along with the arguments of Chapter 3 I think they do oeverthrow this view. And if this view is overthrown, so, a fortiori, is the thesis that A's perceiving X at t is a matter of X's playing a part in bringing it about that A has a sense-datum at t that resembles X as a replica.

(b) Representation and seeming.

The second theory that I want to describe as a representational theory of perception makes use of the notion of its seeming as though something is the case. According to this theory the phenomenon we have described as A's having a sense-experience is in fact what in everyday language we call its seeming, appearing, looking, sounding, etc., to A as though (as if) something is the case. If we take it that seeming is the genus of which looking, sounding, smelling, tasting, and feeling are the species, then, according to this view, instead of saying A cannot perceive X at t unless he has a sense-experience at t we can say that A cannot perceive X at t unless it seems to A at t as though (as if) something is the case. Thus this theory cashes the term of art "A's having a sense-experience" in terms of the everyday expression "its seeming to A as though something is the case". Further, the way in which a sense-experience that A has can represent a physical object is described in terms of the notion of seeming and its cognates. For what is more natural to say than that A's sense-experience is a good representation of X iff X is an α with certain properties and it seems to A that there is an α with a fair number of these properties? (Where to classify a

thing as an α is to indicate its specific nature, e.g. in the case of my dog Fido to say he is a dog, in the case of my cat Jemima to say she is a cat.) Using this notion of a good representation we arrive at the following account of perception:

"A's perceiving X at t is a matter of X's playing some part in bringing it about that it seems to A at t as if there is an α with a set of characteristics β (but not necessarily these characteristics only) X being an α and β comprising a fair number of X's properties." (Where to classify a thing as an α is to indicate its specific nature.)

Does this theory give a correct picture of the sense-experience which is involved in each and every case of perception? I think the answer to this question must be given before we go any further : we must first enquire whether it is a necessary condition of my perceiving a physical object that it should seem to me as though something is the case; and then whether it is a necessary condition of my perceiving X that X is an α with certain properties and it seems to me that there is an α with a fair number of these properties. For it may be that the theory I am considering is successful in giving an account of what it is to have a sense-experience, but that its demand that the sense-experience be a good representation of the perceived object in the sense suggested is excessive. If this turns out to be true, we will have to enquire what conditions must be fulfilled by the sense-experience involved in the perception of a physical object, and whether having good representations in the sense being used at present is involved in perception in some other way. However, we should begin by asking whether

it is a necessary condition of my perceiving a physical object that it should seem to me as though something is the case.

SECTION 3. Is it a necessary condition of one's perceiving a physical object that it should seem to one as though something is the case?

It has been said by many philosophers that expressions involving the word "seem" and its cognates "look, sound, taste, smell, feel" are employed in making tentative judgments about the world around us, rather than in the description of our sense-experiences. We use these locutions, it is said, when we are in doubt, or when we know that our evidence is not strong enough to justify a categorical assertion that p - so we say "It seems as though p". This view is vigorously advanced by Britton and Quinton in the symposium on Seeming (AS Supp. Vol. 1952) and by Quinton in his article "The Problem of Perception" (Mind 1955). There is also the view, not at all incompatible with the above, that statements like "x appears (s (seems) to be so-and-so to S" are equivalent in meaning to statements like "S believes (thinks) that x is so-and-so". (Vesey, "Seeing and Seeing As" (PAS 1955-), Chisholm: "Perceiving" pp 43-4). Chisholm suggests that such locuations as these "may be also taken to imply that the subject S has adequate evidence for believing that x is so-and-so" (ibid). According to Chisholm, we have adequate evidence for p when p is more worthy of our belief than not p ("Perceiving" p 5). Now it is quite plain that expressions like "I think that p" and "I have some reason to belive that p" can be, and are, used in making tentative judgments. Thus the views of Quinton and Britton on the one

hand and Vesey and Chisholm on the other are not incompatible.

I see nothing objectionable in these views, and nothing that is incompatible with the suggestion that it is a necessary condition of A's perceiving X that it should seem to A as though something is the case, provided it is allowed that there are some occasions when "seeming" expressions are not used in these ways, or in these senses. That they are on many occasions used in these ways, or in these senses, I am not disposed to deny. But if they are never used in any other way or sense, then it is plain that the thesis we are considering must fail. Suppose that it is a necessary condition of A's perceiving X that it seems to A as though p. Now if "It seems to me as though p" always expresses a tentative judgment of mine, whenever I say, e.g., "I see X" I will in part be asserting that it seems to me as though something is the case, that is, expressing a tentative judgment of some sort. But this will surely not be the case. Again, suppose "It seems to A as though p" means "A tends to believe that p", whenever one says that A is perceiving some physical object one will in part be asserting that he tends to believe some proposition to be true: but, as I have argued in Chapter 5 to say that a man is perceiving a physical object is not to say anything about his beliefs. But if the supposition that its seeming to A as though p is a necessary condition of A's perceiving X leads to these false conclusions about perception, the supposition itself must be false. But the supposition only leads to these false conclusions on the further suppositions that "It seems to A as though p" and cognate expressions are always used to express tentative beliefs and mean something like "A tends to believe that p". But it is plain that there are occasions when these expressions are not

so used, and do not have this meaning. This is admitted by Quinton, Britton, and Chisholm. Quinton says they are sometimes used "to describe expe iences". Chisholm says they are sometimes used "non-epistemically" (i.e., in a way which does not have any implications as to the beliefs or evidence possessed by those to whom it is said to seem that such-and-such is the case.) Indeed even Professor White admits as much at the end of his contribution to the symposium on the Causal Theory (AS Supp. Vol 1961).

Let us now prove this by giving examples of cases where expressions such as "It seems to me as though p", "It looks to me as if p", "It sounds to him as though p", are used in a sense in which they do not imply a tendency to believe on someone's part, or that some proposition is worthy of belief; and where the person who so uses them is not making a tentative judgment that p. Such examples are not hard to find.

(a) At the optician's we are asked to look at a lighted glass plate with lines painted fan-wise on it. Then we are asked "Does it look to you as though the lines are all equally dark and well-defined? The answers we give will vary according to the changes the optician makes in the power of the lens before our eyes. The right lens power is found when it looks to us as though the lines are all equally dark and well-defined. Now what goes on here is not that we are asked our opinion about the darkness or the definition of the lines. We know full well that they are all equally dark and well-defined - indeed, it is necessary for the fulfilment of the optician's purpose that they should be, as we will realize if we have any wit. What we are being asked to do is to describe the nature of the experience on which we normally base our beliefs about the

physical world. We go to the optician because changes have occurred in the nature of that experience - changes we could express by saying, perhaps, "Where I once could pick out figures at a distance, now it looks to me as though there are fuzzy shapes blending into each other." But when we say this, we don't mean to suggest that we think there are any fuzzy shapes blending into each other.

(b) When we look at a straight stick that is immersed in water, it does look to us as though the stick is bent, but at the same time we know full well that the stick is straight. But the experience we are describing is one that might lead us to the false belief that there was a bent stick there, if we weren't people of experience.

(c) Someone may be setting up a trick, employing a toy mouse and a piece of dark thread. He may ask a friend to study the effects of his trick, using the following words: "Does it look to you as though a mouse is scurrying across the floor?" He can ask the question just as sensibly whether the friend knows that a toy mouse is being used or not. The friend might reply: "No, it looked like a toy mouse, the thing that moved; but if you made it travel faster, then indeed it would look as though a mouse was scurrying across the carpet."

(d) A man might be practising his imitations of bird-calls. He might enlist another person's aid, and tell him "I'm going out in the garden to try out my repertoire of bird-calls. You sit here and tell me if it sounds as though there are thrushes, blackbirds, and bullfinches singing in the garden". The friend could carry out these instructions without difficulty, even

though he knew the noises were being made by a man.

In all these examples the "seeming" expressions - "looks", "sounds" are not used so as to express a tentative judgment; and none of them is equivalent in meaning to a statement to the effect that someone is tempted to believe something. So much is common ground amongst the philosophers we have mentioned. But according to Quinton the use of "seeming" expressions in these ways and senses - in the description of experience, as he puts it - is "a sophisticated procedure and one seldom called for." He says ("The Problem of Perception", Mind 1955 p 35): "(The description of experience) is an essential accomplishment for painters broadcasting engineers, doctors of the eye and ear, cooks and experiemental psychobgists. But unless we fall into their hands there is little need for us to become proficient in it." Now in fact there is nothing recherché or sophisticated about the use of "seeming" expressions in these ways and senses: any normal person can use them satisfactorily without taxing himself at all. The reason why Quinton is led to suppose that it is difficult and sophisticated to describe experiences is his analysis of what it is to have an experience. This is advanced in an obscure passage in his article (ibid p 34) where, having described two other supposed uses of "appear", he writes: "There is a third use of "appear", which resembles the one last mentioned, in that no reasons or evidence can be given for statements containing it, but differs from it in that certain conditions of observation are supposed to obtain, whether they do or not. "It looks to me (here, now) elliptical" we say of a plate we know to be tilted and round,

supposing it to be at right angles to our line of vision. This statement answers the question "how does it strike you, look to you, what exactly do you see?" It is replaceable by "there is an elliptical patch in the centre of my visual field". It is in this type of case only that the description of appearances and experiences coincide."

From what he says in this passage it is hard to tell what in Quinton's view goes on when we use "seeming" expressions to describe experiences. Take the case of the stick half immersed in water, an example he goes on to use. When, describing our experience, we say "It looks to me as though there's a bent stick", are we, according to Quinton, saying "There is a bent stick", but indicating by the use of word "looks" that this is the judgment that we are led to only if we make an assumption about the conditions of perception which we may well know to be false, e.g. if we pretend that the stick isn't in water, while we know that it is? But this suggestion is ridiculous. For it amounts to saying that when asked how things look to us to reply correctly we may have to pretend that things are other than we know they are and utter a statement we know to be false. Perhaps, then, Quinton's suggestion is that "It looks as though there is a bent stick" means "If conditions a,b,c,d . . . obtain (which they may not do), then there is a bent stick." A difficulty here is that Quinton gives us little guidance as to what these conditions are supposed to be. However, it is plain that the conditions are supposed to refer to the physical situation of the perceived object vis-à-vis the perceiver. But then Quinton's suggested analysis must

be wrong. For it is undeniably true, and Quinton himself states, that no reasons can be given (let alone are they needed) in justification of statements about how things appear or seem when these terms are used in the way we are considering. But it is plain that if a man says "If the object I am perceiving is not immersed to half its length in water, then there is a bent stick over there" (which is something like Quinton's proposed analysis of "It looks to me as though there is a bent stick") he may well be asked his reasons for saying this, and his statement will be disregarded if he cannot give any. So it is plain that Quinton's analysis must be wrong.

I conclude that the "seeming" expressions used in my examples (a) - (d) are not recherche or sophisticated usages. Rather, they are quite frequently found in everyday discourse. What I want to do now is to distinguish by the use of symbols these usages from the sort that imply belief or a tendency to believe. Let us first agree to treat seeming as the genus of looking, sounding, smelling, tasting, and feeling, so that its looking as though p and its sounding as though p, etc., will be considered the species of its seeming as though p. This accords well enough with everyday usage. Then let us distinguish between two quite different senses that the expression "It seems to A as though p" can have. Let us say that it seems_1 to A as though p when it seems to A as though p in the way it seemed to the people mentioned in our examples (a) - (d) as though whatever in each example it happened to bewas the case. When it looks to me as though a stick is bent, even though I know it is straight, and looks so because half-immersed in water, this is a case of its seeming_1 to me as though something is the case. Another example of this is its sounding to me as

though there are thrushes in the garden, even though I know the noises are made by my talented friend. And, in contrast, let us say that there is quite another sense of "seems" where it is a necessary condition of its seeming to A as though p that A should believe (or tend to believe) that p. When it seems to A as though p in this sense, let us say that it $seems_2$ to A as though p. It is plain from the examples I used that it is not a necessary condition of its $seeming_1$ to A as though p that A should believe (or tend to believe) that p. Let us, as well as distinguishing $seeming_1$ from $seeming_2$ by the use of the numerical suffixes, distinguish their species in the same way, so that we have $looking_1$ (as in "It looks as though the stick is bent, but really it's straight") distinguished from $looking_2$ (as in "At first it looked to me as though the bottom would fall out of gilts, but then I realised they would rally"), and so on throughout the species.

Now we may state the thesis concerning what it is to have a sense-experience which is proposed by the representative theory we are considering. It is this: "It is a necessary condition of A's perceiving X at t that it $seem_1$ to A as though p at t". Unless it $seems_1$ as though something is the case to a man, he cannot at that time be perceiving a physical object - such is the thesis proposed. I believe that this thesis is correct. When I now see my pen, it is the case that it $looks_1$ to me as though there is a blue and silver pen in my hand. When I look at myself in the mirror it $looks_1$ to me as though there is a man some distance in front of me. When I feel my arm it $feels_1$ to me as though there is a rounded fleshy

object beneath my fingers. I cannot think of a case of perception where it does not seem$_1$ as though something is the case.

However, an objection may be made to my view that perception cannot occur unless it seems$_1$ to the perceiver as though something is the case, on the following lines: "The phenomenon you describe as seeming$_1$ as though something is the case is surely a conscious one. But there is equally certainly such a thing as unconscious perception. This can only mean that perception can on occasion occur even though it does not seem$_1$ to the perceiver as though something is the case." The force of this objection depends on the significance attached to the expression "unconscious perception". If unconscious perception is perception that occurs without the perceiver's being aware that it is occurring, then the objection clearly fails, at least as it is stated above. For we have already seen that it is possible for a man to be aware of the fact that it seems$_1$ to him as though something is the case, yet not to grasp (and even to disbelieve) that he is perceiving anything, even though he is in fact perceiving something, and the seeming$_1$ in question is the sense-experience involved in that perception. (See Chapter 5, p133: the man transported to Africa is all too well aware of his odd new sense-experiences, but doesn't even <u>think</u> he's perceiving the things he in fact is perceiving.)

But I think a better policy will be to consider some of the better known cases that are described as cases of unconscious (and subliminal) perception, to discover whether it is true of

any of them both that it is a case of perception and that the perceiver involved is not subject to an experience of the type I have described as its seeming$_1$ to someone as though something is the case. In this way I will avoid such thorny problems as the one whether "unconscious perception" has many senses (as J.P. Day suggests in A.S. Supp. Vol 1960, in his contribution to the symposium "Unconscious Perception"), or the one whether the expression is a misleading misnomer for the mental phenomena which it has been applied to (as A.R. White suggests, in his book "Attention", p 52 f). It does seem to me that the expressions "unconscious perception" and "subliminal perception" (particularly the former) have been used rather rashly to cover a variety of supposed phenomena. The cases of unconscious and subliminal perception I will consider are mentioned by Day in his article.

(1) A is in a perfectly normal condition, and is shown a summer-house. Beside the summer-house is a tulip-tree, which is perfectly visible to anyone standing where A stands, looking in the direction A was looking. But afterwards - even immediately afterwards - A cannot remember seeing the tulip-tree. He must therefore have seen it unconsciously.

Now I believe this case of supposed unconscious perception is of no help to one who wishes to argue that A can perceive X at t without its seeming$_1$ to A at t as though something is the case. First of all, it is far from clear that in the situation described we would want to say that A did see the tulip-tree. In fact, both Day and Vesey in their discussion in the A.S.Supp Vol 1960 argue that the tulip-tree is not seen. But if it is

admitted that A must have seen the tulip-tree, this can only be for one reason, that most people who were otherwise related to the tree as A was would certainly have seen it (this fact being ascertainable by questioning them or observing their behaviour). But when it is said that they would have seen it, it is surely true that inter alia it is being said of them that they would have had a certain sort of sense-experience, i.e. that it would have seemed$_1$ to them as though something was the case. There is no suggestion that <u>their</u> seeing of the tulip-tree was in any way odd. But the argument to the conclusion that A must have seen it too is that, because he was otherwise in the same circumstances as they were, he must have been in the same state as regards his perception as they were. But then A must in seeing the tree have been subject to a similar perceptual experience as they were, i.e. it must have seemed$_1$ to him as though something was the case. So the case of the tulip-tree is not one where perceiving can be supposed to occur without its seeming$_1$ to the perceiver as though something is the case.

(2) It is a fact that A, when under hypnosis, in a trance, can hear what the hypnotist says. But afterwards he can remember nothing. So unconscious perception must have occurred during the period A was hypnotised.

Now we may feel like calling perception under hypnosis "unconscious perception", but there seems to be no reason to suppose that what makes it worthy of this title is the fact that it does not involve its seeming$_1$ to the perceiver as though something is the case. What is queer about this case

of perception is, surely, something quite different: the fact that the hypnotist can wipe out all remembrance of what has been perceived. There is no reason to suppose that the hearing was at the time of its occurrence in any way unusual.
(3) A notices that the clock on his wall has stopped ticking, but has no memory of hearing it ticking. So, to notice that it stopped, he must have heard it ticking, but unconsciously.

One obvious difficulty in this argument, pointed out by more than one critic, is that it does not seem to be necessary that A should have heard the clock ticking in order for him to notice that it had stopped. If all he had heard was a background noise, in which the ticking was merged, he could have noticed a change, which he then attributed to the clock's ceasing to tick. However, we may suppose that A, previously to his noticing that the clock had stopped ticking, was not conscious of any background noise. Might we not, if such was A's situation, suppose that A had heard the clock ticking? How else could we account for his noticing that it had stopped? The question now facing us is one of deciding whether, if we made such a supposition, which does indeed seem plausible, we would be committing ourselves to the view that A heard the clock without it sounding$_1$ to him, and thus seeming$_1$ to him, as though something was the case. I believe we would not. It seems to me to be quite possible to hold that A hears the clock, or, as might be supposed with regard to the first case I mentioned, sees the tulip-tree, without committing oneself to the view that in neither of these cases does it seem$_1$ to A as though something is the case.

The way out is clearly not by suggesting that in these cases, whilst failing to notice that he is perceiving the clock and the tree, A nevertheless is aware that it $seems_1$ to him as though something is the case. That would be most implausible: it is not as if the man says to himself "It looks as though there's a tulip-tree there, but I know I'm not seeing one really". Rather what we must suppose is that it can $seem_1$ to A as though p without A's being conscious, aware, of the fact that it $seems_1$ to him as though p. It may well be true that a man has privileged access to the contents of his mind, but I see no reason to suppose that each mental occurrence of his should be infallibly known. Indeed, this supposition is just what we need to dispense with if we wish to give a sensible account of the "unconscious" perception of the rose-tree and the clock. In both these cases we wish to assign the blame for their oddness not so much to the quality of the perceivings in question as to the lack of attention paid by the perceiver. If we do suppose that the objects are perceived, our explanation of the perceiver's failure to remember perceiving them will be attributed to lack of attention on his part. If lack of attention is not supposed to have featured in these cases, then the suggestion that perception took place becomes quite implausible. Thus, I suggest, the plausible account of these cases of perception, if they are really cases of perception, does not commit us to supposing that its $seeming_1$ to the perceiver that something is the case is not involved in the perception of these objects.

(4) Cards with words on them are flashed before A's eyes. He cannot say what the words are, but a correlation is observable

between his galvanic skin response and the nature of the words shown - the "shock" words produce a greater response. Here we have a case of subliminal perception.

Now if these phenomena really did occur, would we be forced to admit both that A perceives the words, and that at the time he does so it does not look$_1$ to him as though something is the case? Perhaps we might suppose that A, if he perceives the words at all, has sense-experiences of the usual type, but of such a short duration that his attention is not taken by, and he is not conscious of, them. But I think that if the occurrence of such phenomena as the above-mentioned responses, or the implanting of information by hypnopedia, became well attested, we could understand one who talked of people perceiving the words on the cards, or perceiving in their sleep, even though we did not suppose that this perception was accompanied by its seeming$_1$ to them as though something was the case. But I do not think that this fact throws any light on the concept of perception that we employ in our normal discourse. A comparable case can be found with regard to the concept of knowledge. It is plain both that, in normal discourse, to assert that A knows that p is in part to assert that it is true that p, and that we can understand one who says both that A knows that p, and that it is false that p. For "A knows that p" can be used to mean "A is very certain, completely persuaded, that p". But this fact does not lead us to the unqualified assertion that it is not a necessary condition of A's knowing that p that p be true. What we say, surely, is that there are central cases of knowing, and others that are peripheral. There is a focal

meaning to "know", and one who knows that p in this way cannot do so unless it is true that p; there is also a parasitical way in which "know" can be used, to signify "be very sure". It can only be used in the second way because when used in the central way it usually implies confidence in the knower about the proposition known.

I suggest the same is true of the use of "perceive" in cases where it is not supposed to imply the having of a sense-experience by the perceiver. In the central cases of perception, the perceived object in some fashion causes the perceiver to have a sense-experience, which will usually be accompanied by some differential response, crude (as, for instance, a stronger galvanic skin response than is usual) or sophisticated (as, for instance, a conscious identification of the perceived object), in the perceiver. When such a response is elicited in the same fashion by a physical object, only without the production of a sense-experience, we may be willing to say that the object is perceived, but this use of "perceive" is peripheral to, and parasitic on, the central, focal, meaning of "perceive". It is because such a case is similar in a way to the central case (as it clearly is) that we can talk of it as a case of perception. That the classification of such cases as perceivings is parasitic can be seen by considering the difficulties that attend on the views that perceiving a physical object is nothing more than being caused by it in a certain way to give a differential response to it. We then get a picture of perception like that advanced by Dember at the beginning of his book "The Psychology of Perception": that which gives a differential response to a stimulus can be

said to perceive it, as, for instance, an electric train which responds differently to different light-signals that act on a sensitive receptor it carries. Apart from the difficulties (ignored by Dember) of giving a precise formulation to this doctrine, it is clearly false in that it implies that inanimate things like electric trains can perceive. And why is this? I suggest that the reason is that the concept of perception can only be applied to sensitive beings, even when it is only being applied in the attenuated sense of giving a differential response. But what is the rationale of this restriction? Is it not that it is only to sensitive beings that it can $seem_1$ as though something is the case, and that the central case of perception must involve such $seeming_1$? Thus, though A may be said to perceive X even though it does not $seem_1$ to him as though something is the case, the focal meaning of "perceive" determines the range of applicability of the term in its peripheral uses, insofar as it can only be applied to beings that could be said to perceive in the central sense, i.e., which are such that it could $seem_1$ to them as though something is the case. (For a discussion of other peripheral cases of perception see pp 203-6).

So I conclude that my view that A's perceiving X at t necessarily involves its $seeming_1$ to A at t as though something is the case has not been undermined by considerations relating to so-called unconscious perception: for it is the focal sense of "perceive" that interests me, and the vast majority of our seeings, hearings, etc., are perceivings in this focal sense of "perceive". I believe I can now mention a point which

renders my view particularly attractive: it arises from the fact I mentioned on p 100, that the experiences involved in both perception and hallucination may have little or nothing about them which enables one who has them to distinguish them. Otherwise it is hard to see how one who is hallucinated should be deceived about the nature of the world about him. (It may be argued, as for instance, Professor Armstrong has, that hallucination is nothing but a tendency produced via the senses to hold such false beliefs, but this view is implausible in that we feel the need to account for the production of these tendencies in terms of something else that is happening to the hallucinated man, a point made by several of Armstrong's critics.) But if the experiences in perception and hallucination must be similar, they should be describable in similar language. A theory about the nature of the sense-experiences involved in perception is thus rendered more plausible if the description it gives of these experiences can apply as well to hallucinatory experiences. I suggest that expressions of the form "it seems_1 to A a though (as if) p" are in fact naturally and normally used in the description of hallucinatory experience, and that my theory is thus rendered more plausible.

This being so, I am disposed to accept the thesis that A cannot perceive X at t unless it seems_1 to A at t as though something is the case, though I am prepared to treat any counter-examples to this thesis that may be presented (I cannot myself think of any) on their merits. I conclude, then, that we have specified the phenomenon that we described as "A's having a sense-experience". It is nothing other than its seeming to A as though something is the case, in the sense of "seem" I

illustrated by examples, and called "seem$_1$".

SECTION 4. Is the second representative theory I sketched in Section 2 a correct analysis of the perception of a physical object?

The theory we have now to consider is the one I described on p 150. It offers the following account of perception:

"A's perceiving X at t is a matter of X's playing some part in bringing it about that A has a good representation of X at t, i.e. that it seems$_1$ to A at t as if there is an α with a set of characteristics β (but not necessarily these characteristics only), X being an α and β comprising a fair number of X's properties". (Where to classify a thing as an α is to indicate its specific nature.) We have seen that it is indeed a necessary condition of A's perceiving X at t that it should seem$_1$ to A at t as though something is the case (I have altered the "seem" of the account on p 150 to "seem$_1$", in the light of the intervening discussion). But is it a necessary condition that it should seem$_1$ to A at t as if there is an α with a set of characteristics β (but not necessarily these characteristics only), and X should be an α, and β comprise a fair number of X's properties? In other words, is the contention involved in this theory about the way the sense-experience must represent the perceived object correct? It seems not. For I may perceive X, which is an α, even though it seems$_1$ to me as though there is a γ. It may be that what I see is a scarecrow, but that it looks$_1$ to me as though there is a man. I may be seeing a dog, but all that

may be properly included in a description of my sense-experience may be the words "It looks$_1$ to me as though there is a small animal". In the case of things perceived at a distance, or in a bad light, it may only seem$_1$ to the perceiver as though there is something there. When a sentry sees a man moving in the dark, it may seem$_1$ to him as though it was the shadow of a tree that moved. As to the demand that if X is to be perceived it must seem$_1$ to A that there is something that has a fair number of the properties that X actually has, the examples of things seen in the dark or at a great distance show that what it seems$_1$ is there may be virtually uncharacterized. "It looked$_1$ as though something moved", "It looked$_1$ as though there was some sort of building". Moreover, the characteristics things possess may be quite misrepresented in a hall of illusion, and yet the things are still perceived. I may be seeing a tall, thin man even though it looks$_1$ to me as if there is a short, fat person present.

This being so, I conclude that the demand that the perceiver's sense-experience be a good representation (in the sense described) of the perceived object is too severe, and would lead us to deny that perception occurred in many situations where it actually does. Moreover, I do not think that the theory we are now discussing contains an account of conditions sufficient for the perception of a physical object, either. For take the following case: suppose there are two identical light-bulbs, A and B. They are arranged so that A's being switched on causes B to be illuminated, too. Suppose they are so placed that I see B when it is illuminated, but cannot see A at all. Now

according to the theory when I see bulb B it seems$_1$ to me as though there is a light-bulb with certain characteristics, most of which B possesses; but A also is a light-bulb with at least a majority of those characteristics (for A and B are identical), and A plays a part in bringing it about that I have a sense-experience, its seeming$_1$ to me as though there is a light-bulb with certain characteristics. So A plays a part in bringing about a sense-experience of mine which represents it just as much as B. So it must be seen by me at the time B is seen, if the theory under consideration is correct. But as by hypothesis it is unseen, the theory must be incorrect. So I conclude that the proposed theory contains conditions neither sufficient nor necessary for perception. However, we have seen that it contains a satisfactory account of what it is to have a sense-experience, and I believe that it is in part by the use of the concept of having a good representation that it employs, or one closely related to it, that we will arrive at a satisfactory account of the perception of a physical object. I will now go on to consider what conditions the sense-experience involved in the perception of a physical object must fulfil, and whether it is possible, given that X must produce a sense-experience of A's, to arrive at conditions sufficient for X's being perceived merely by adding conditions about the way A's sense-experience must represent X.

SECTION 5. Further attempts to advance a satisfactory representative theory of perception, employing the notion of seeming$_1$.

The first question we must ask is what conditions A's sense-experience must fulfil if it is to be the sense-experience involved in A's perception of a physical object, X. We have already seen (pp 160-162) that the sense-experience does not have to be a good representation of X: neither the species nor the majority of the characteristics of the perceived object need be represented by the sense-experience. This is shown by cases where things are seen at a distance, or in a bad light, or only fleetingly. There are also the cases mentioned by H.P. Grice ("The Causal Theory of Perception", AS Supp. Vol 1961, p 144): "Objects can be said to be seen even when they are looked at through rough thick glass or distorting spectacles, in spite of the fact that they may then be unrecognizable". But there are cases even more extreme than these. Sometimes when we see something distant of fast-moving, our sense-experience may only be a matter of its looking$_1$ to us as though there is a tiny speck or a vague blur; when we see something in bad light it may only look$_1$ as though there is a dark shape; when something brushes against our body or we make a passing contact with it with our fingers, and so feel it, it may only feel$_1$ to us as though something is in contact with our body or fingers. I conclude that all that must be said if we are to specify the experience essential to A's perceiving X at t is that the experience must be an instance of its seeming$_1$ to A at least as though (as if) something is there. Even though the fullest description a man can correctly give of his sense-

experience at a particular time is "It feels as though something is there" or "It looks as though something is there", it may still be the case that the sense-experience he is having at that time is one that is involved in the perception of a physical object. Usually, of course, our sense-experiences have more detail - it looks$_1$ to me now as though there is a table with a writing pad on it and a pen moving over the pad, and so on.

Let us now say that A has a seeming at t iff it seems$_1$ to A at t at least as though (as if) something is there. That is, it will be true of A at t that he has a seeming if it merely seems$_1$ to him at t as though something is there, but it will be equally true of him if at t it seems$_1$ to him as though there is a table with a writing pad on it in front of him, or a vast landscape with trees, hills, and rivers. I believe that we now have a full specification of the nature of the sense-experience that A must have if he is to perceive X at t: it must be the case that A has a seeming at t, in the sense of this expression I have just introduced. Within the range of sense-experiences which can properly be called "seemings" there are some which represent a physical object in great detail, others that are merely cases of its seeming$_1$ as though something is there. If a man is to perceive a physical object, he must have a sense-experience at the time of his perceiving it that falls within this range, but it may fall anywhere within it, either representing the object well, poorly, or scarcely at all. Indeed, it would be hard to see how we could say the sort of sense-experience describable as its

seeming$_1$ to A merely as though something was there represented a particular physical object - for in what sense would it represent that object better than any other object taken at random?

Before leaving this topic I will make two observations about my choice of the term "having a seeming" to stand for the sort of sense-experience integral to perception. The first is to admit that the term is a barbarism. But it is chosen, I might say, for this purpose. By using it, as opposed to some expression like "having an appearance", which contains an expression in common usage, I avoid all the difficulties that may arise when philosophers employ words in common usage in some specialised sense of their own. No-one can accuse me of abusing terms in ordinary usage or of giving an illicit plausibility to my argument by clothing views which may be controversial in the garb of language which is used to make statements which all agree to be true. The oddness of the expression "having a seeming" is central to the second point I wish to make. This is an answer to the question: "Why don't you say "having a seeming$_1$", since you distinguish two senses of expressions of the form "it seems to A as though (as if) p"?" My answer is that whilst expressions of the last-mentioned form are common in ordinary talk, and can be used in more than one sense, a fact which my argument demanded I made clear by the use of an added numeral, there is no need to make such a distinction in the case of an expression which is a creation of my own. There can be no doubt about the meaning of expressions like "A has a seeming" whenever they occur subsequently in this

work. So there is no need for the use of the added numeral. So much for my discussion of the conditions that the sense-experience involved in the perception of a physical object must fulfil.

Let us now see if we can describe sufficient conditions for perception starting from the formula "A perceives X at t if X plays a part in causing A to have a good representation of X at t", and adding further stipulations, but only about the nature of the representation, not about the nature of the causal relation. If we can describe sufficient conditions for perception in this way, we might conclude that we had defined a central case of perception, and that the other cases, where we admit that perception has occurred even though these conditions are not fulfilled, are offshoots of the central case. Having described the central case, we should then proceed to show how the other cases are related to it, and acquire their right to be called cases of perception.

Let us then try to describe a central case of perception. Let us say that A has an optimal representation of X iff it seems_1 to A as though there is an α at place π with a set of characteristics β (but not necessarily only these characteristics); and X is an α, and is at π, and β comprises a fair number of X's characteristics. (Where to classify a thing as an α is to indicate its specific nature.) Then let us consider the suggestion that A perceives X at t if X plays a part in causing A to have an optimal representation of X at t. Now this proposed analysis seems promising, as it avoids the difficulty of the account where it was only demanded that the

sense-experience be a good representation of X. Our present account adds the further demand that the perceived object must be at the place where it seems$_1$ as though there is an object which in other ways tallies with it. The problem about the previous account was that it implied that if A and B are qualitiatively identical, and both play a part in bringing it about that a man has a sense-experience, then if B is perceived by the man, A must be also. But this is not implied in our present account, for A and B cannot both be in the same place at the same time. If A and B are qualitatively identical objects, both in part responsible for a man's having a sense-experience, which consists of its seeming$_1$ to the man that there is an α (let us suppose A and B are α's) at place Π, then if B is being perceived, it will not, according to the account of perception now under consideration, follow that A is perceived as well: for among the reasons which must make us in this case say that B is being perceived is the fact that it is at Π, and if B is at Π A cannot be there as well. So it will not fulfil the conditions for being perceived by the man simply because it is qualitatively identical with something else that does fulfil them, as happened on our previous account. However, the present account still implies that things which are not in fact perceived are perceived. Imagine there are two light-bulbs, A and B. A is at place p, but invisible to an observer, O. When A goes on, B is as a result illuminated. B is visible to O, and because of a cunning mirror arrangement, it looks$_1$ as though B is at p. Now, when A is switched on, it looks$_1$ to O as though there is a light-bulb at p, and there is

a light-bulb at p; and the properties that the light-bulb at p possesses have as a sub-set the group β which comprises a fair number of the whole, and it looks$_1$ as though there is a light-bulb at p which possesses β ; and the light-bulb at p plays a part in causing it to look$_1$ to O as though there is a light-bulb at p. But the light-bulb at p is A, and on our account this bulb A is seen. But, by hypothesis, it is not. So our account is defective.

Perhaps an alternative account can be given that will be more successful. Let us say that A has an individual representation of X iff it seems$_1$ to A as though X has characteristics β (but not necessarily these characteristics only) and is in place π ; and X is at π , and β comprises a fair number of X's characteristics. Now is it the case that A perceives X at t if X plays a part in causing A to have an individual representation of X at t? If John plays a part in causing it to seem$_1$ to me as though John is standing by the window, eating an apple, and John is in fact standing by the window eating an apple, doesn't it follow that I perceive John? But consider the ruse employed by Sherlock Holmes in Conan Doyle's tale "The Empty House". To frustrate his would-be assassins he had a lifelike dummy constructed, so that from a distance it looked$_1$ as though he were sitting in a certain place. Suppose such a dummy were arranged so that it could only be seen from outside in a mirror. Let us suppose that to one looking from outside it looked$_1$ as though, Sherlock Holmes was sitting at place p, as a result of the operations of this dummy-mirror arrangement. Now let us suppose Sherlock Holmes happens to be sitting at p at

the time someone looks in from outside, but is of course invisible to the person because of the mirror arrangement. Let us also suppose Sherlock Holmes has set up the dummy and mirror arrangement himself. Now it will be the case that Sherlock Holmes has played a part in bringing it about that it looks$_1$ to the watcher as though Sherlock Holmes is sitting at place p, and it is in fact true that Sherlock Holmes is sitting at p. But, by hypothesis, he is not visible, whilst on the account under discussion the watcher perceives him. Our account, then, fails.

But how could A's sense-experience better represent X than an optimal or an individual representation does? It is impossible that it should. So I am led to the conclusion that over and above mention of X's causal role, and the way A's sense-experience represents X, there must be specified some other conditions before we arrive at an account of conditions sufficient for A's perceiving X.

SECTION 6. Conclusions

In this chapter I first discussed two versions of the representational theory, one of which involved reference to sense-data, and the other to its seeming$_1$ as though something was the case. Neither version proved acceptable, but in discussing the second I came up with what I consider to be an important result, in that I showed, as I believe, that it is a necessary condition of A's perceiving X at t that it should seem$_1$ to A at t as though something is the case. (I marked out a particular sense of "seem" by the expression "seem$_1$",

illustrating my distinction by the use of examples.) I then went on to argue that it is further necessary if A is to perceive X at t that A should have a seeming at t, giving a definition of the expression "have a seeming". I had already argued that it was not a necessary condition of A's perceiving X at t that he should have a good representation of X at t, and that it was not a sufficient condition of A's perceivingX at t that X should play a part in bringing it about that A had a good representation of X at t. I then went on to show that it was not a sufficient condition of this occurrence that X should play a part in bringing it about that A had either an optimal or an individual representation of X at t. (I gave definitions of the notions of having good, optimal, and individual representations of a physical object.) I am thus led to suppose that in order to give sufficient conditions for A's perceiving X it will be necessary to consider the nature of the causal relation between the perceived object and the perceiver in perception. Perhaps it is by specifying this in some way I will come closer to the account I desire. I believe that this specification will involve reference to one of the notions of representation I have introduced in this chapter, or one similar to it. Representation may thus figure in perception, but in a less obvious way than traditionally was supposed. However, this will become clearer in the next chapter.

CHAPTER SEVEN: THE NATURE OF THE CAUSAL RELATION INVOLVED IN THE PERCEPTION OF A PHYSICAL OBJECT.

SECTION 1. Introduction

We have seen that we cannot arrive at a set of conditions sufficient for A's perceiving X merely by stipulating that X play a part in causing A to have a sense-experience and then by describing what the nature of this sense-experience must be. We have seen, though, that it is necessary, if A is to perceive X at t, that A should have a seeming at t, in the sense I gave to that expression in the last chapter. I suggest that we now attempt to give a set of conditions jointly sufficient and separately necessary for A's perceiving X at t by enlarging on the mode of causation by which X plays its part in causing A to have a seeming at t. When we considered Grice's proposed account of perception in Chapter 4, it seemed that it might be possible to arrive at sufficient conditions for perception by enlarging on this mode of causation. But Grice's account did not, we considered, have the requisite generality. I believe that if the mode of causation is described in a sufficiently general way, we will get nearer to specifying conditions both sufficient and necessary for A's perceiving X. I shall attempt to come closer to these conditions in this manner in the present chapter.

SECTION 2. First attempts to specify the nature of the causal relation involved in the perception of a physical object.

Let us begin by considering the suggestion that A perceives X at t iff X is the cause of A's having a seeming at t. I will not

attempt to describe the conditions under which something is properly called "the cause", as opposed to "a cause", of something else. However, it is plain that we do make this distinction, and perhaps it is as the cause of the seeming that we distinguish the object of perception from other things that along with it produce that seeming, but are not perceived. But in fact it does not always seem to be the case that the perceived object is the cause of the perceiver's having the seeming involved in its being perceived. Take the case where I am looking for a book in a dark room. A friend puts the light on, and I see the book. What in this case is the cause of my perceptual experience, the one involved in my seeing the book? There surely is one, and can there be any doubt that it is my friend's putting the light on, not the book or anything about it. But this does not entail that I don't perceive the book. And the same example shows that X's being the cause of A's having a seeming is not a sufficient condition of A's perceiving X: for it may well be the case that I do not perceive my friend, though he is the cause of my having the experience I do.

Let us try to find some other way of formulating conditions for A's perceiving X by means of specifying the causal relation between X and A's having the seeming. We must clearly try to ensure that it does not follow from our account that in every case of perception the perceiver's brain and sense-organs are perceived, just because they play a part in causing the perceptual experience. We might attempt to do this by stipulating that the perceived object must be involved in the

causal process leading to the production of the seeming before any part of the perceiver's body is involved in the process. But what further specification must we add so that our account will not imply that if I see an object by the light of an electric light bulb, I must see the bulb, because it plays a causal role in the production of my perceptual experience? It might seem to the case that we should avoid this difficulty by stipulating that the object perceived must be the last physical object involved in the causal process before any part of the perceiver's body is involved in it. But on the above stipulation, a man who wears spectacles will never see anything but his spectacles. Indeed, it is plain that no limitation can be placed on the number of objects that may be involved in a perceptual process after the perceived object, but before any part of the perceiver's body, has been involved in it: there may be none, or, as in the case of a thing seen by means of a set of mirrors, as in a periscope, there may be many. Similarly, in the case of hearing, when we hear an echo, we hear the thing that produces the sound, not the object or objects that reflect it. Perhaps it may be thought that we could avoid these problems by stipulating that the object perceived must be the last physical object, excepting reproducing media, to be involved in the causal process before any part of the perceiver's body is involved in it. We could then say that spectacles, mirrors, and the like were reproducing media. But how could we define "reproducing medium"? Only it would seem, on the following lines: "M is a reproducing medium iff physical objects may be perceived even though M is involved subsequently to them

in processes leading to the production of the seemings involved in the perception of the physical objects". But then there would be a circle if we defined "perception" in terms of "reproducing medium". Moreover, if we stipulate that the object perceived is always the one involved in the causal process before any reproducing medium, this falsely implies that we can never perceive spectacles, mirrors, etc.

But anyway it is plain that the line of argument we have been pursuing is vitiated by two obviously false assumptions. First, that the perceived object is always outside the perceiver's body. But it is plain that when I feel something, it is usually in contact with my body - so it is not involved in the perceptual process before any part of my body is. Often, indeed, the perceived object is within my body, as when I feel the hypodermic needle sinking into my arm. Finally, and most obviously, it is possible to perceive one's own body, its limbs, its surfaces, and even the muscles and organs beneath its surface. The second false assumption is that there is only one causal process external to the perceiver's body that contributes to bringing about his having the seeming. This is not so. Suppose I wake up and see my clock, and the seeming involved in my seeing the clock is S. Also suppose that I would not have woken up unless the church bell had roused me. Now the church bell played a part in producing S: if it had not rung, I would not have had S. But we do not want to say that because of its causal rôle, the church bell is perceived when I have S. There are many causes, external to the perceiver's body, of his having seemings, which are not perceived when he

has those seemings. We may conclude that these attempts to specify the nature of the causal relation involved in perception have failed. I believe, however, that we can do better.

We may remember that Price thought that the causal theorist could render his theory more plausible by distinguishing the standing from the differential conditions of our sense-experiences. (Price takes the having of a sense-experience to be the having of a sense-datum). Price realised that it was utterly implausible to say that, if an object causes a man to have a sense-experience of some sort, then it is for that reason perceived by the man. For our sense-experiences may have unperceived causes. He thought that only if objects caused men to have sense-experiences as <u>differential conditions</u> of those experiences was it reasonable to say that the men perceived the objects. He wrote: ("Perception", p 70): "There are certain conditions which condition <u>all</u> the sense-data of any one sense, conditions in the absence of which none of them can come into being: in the case of visual sense-data there must be a source of light, an eye, a retina, an optic nerve, etc. . . . But these standard conditions, just because they are necessary to all the visual sense-data alike, do not determine any one of them. For that, something more is wanted, a varying or differential condition which accounts for the difference between this square one and that elliptical one. Obviously it is quite absurd to identify . . M (the perceived object) with any or all of the standing conditions of S (the sense-datum); but it is quite plausible to identify it with the differential condition of S."

Now it is plain that, according to Price, C is a standing condition of A's sense-experience if it conditions the nature of A's experience as a whole; but does Price mean to say that D is a differential condition of A's sense-experience if it conditions some particular detail of A's sense-experience, or, quite distinctly, if it conditions some particular detail, but not the whole nature, of A's experience? For only if he means the second of these is it true, as he assumes, that a condition cannot both be a differential and a standing condition of a particular experience. For a particular object may condition both the whole and a particular detail of a man's visual sense-experience, for instance, when a man sees the objects in his room by the light of an electric bulb, and one of the things he sees is the bulb itself. Here the bulb is both a standing and a differential condition of the same sense-experience, if we take "differential condition" in the first sense proposed.

Now it does seem to me that, if we take "differential condition" in the first sense proposed, it is a necessary condition of A's perceiving X that X is a differential condition of A's sense-experience. For it seems that unless X plays a considerable part in determining what I shall call "the detail" of A's seeming, or at least whatever detail A's seeming has, then we would not wish to say that A perceived X. By "the detail of a seeming", I mean the characteristics that distinguish it from other seemings, e.g., one seeming may be a matter of its seeming$_1$ as though there is a big black cat on the mat, whilst another may be a matter of its seeming$_1$ as though there

is a small blue box with white lettering on it. Both of these phenomena are seemings, but they differ in detail. It is clear that we must say "If A is to perceive X, X must play a considerable part in determining whatever detail A's seeming has", for it may be that A's seeming is virtually uncharacterised, virtually without detail, as I pointed out on p 171. It may only be a matter of its seeming$_1$ to A as though something is there.

I will now say that X plays a differential part in bringing it about that A has a seeming, s, iff X both plays a part in bringing it about that A has s, and, if s has any detail, largely determines what that detail is. I then suggest that it is at least a necessary condition of A's perceiving X at t that X should play a differential part in bringing it about that A has a seeming at t. That this is necessary is, I think, amply shown by the examples Price advances. For instance, though the sun usually plays a part in bringing about the visual sense-experiences we have when we see things during daytime, it is only said to be perceived when it plays a particularly significant part in determining the detail of our visual sense-experiences, as in the case when it looks$_1$ to us as though the sun is peeping over the horizon.

But it is plain that it is not a sufficient condition of A's perceiving X at t that X should play a differential part in bringing it about that A has a seeming at t. Two examples will suffice to show this. The first is that of Grice's expert with his device for stimulating a man's cortex so that it looks$_1$ to the man as though there is a clock on the shelf. The device in

question clearly plays a differential part in bringing it about that the man has a seeming at t, supposing it is activated just before t. For it largely determines the detail of the man's sense-experience. But clearly we do not wish to say that the device is perceived. The second relates to a case where a man has a virtually undetailed seeming. Now it will be true of anything that plays a part in bringing it about that someone has such a seeming that it plays a differential part. For the second condition that a thing had to fulfil if it was to play a differential part in bringing it about that someone had a seeming will not apply in this case, as it was only to apply if the seeming in question had some detail.

So I must continue, and attempt to discover if there is something else about the causal link between a physical object and a person's having a seeming that, given that the conditions so far described are fulfilled, can ensure that the person is perceiving the object.

SECTION 3. Further specification of the nature of the causal relation involved in the perception of a physical object.

I shall now attempt to formulate a further condition, relating to the way in which X plays its part in bringing it about that A has a seeming, which is needed to supply the deficiency in my present account of what it is for A to perceive X. I shall try to be as precise as I can, but at certain points a degree of vagueness will creep in: I am not sure whether this is to be attributed to my own lack of philosophical acumen or to the

nature of the subject-matter. I suggest that we may find out what we are looking for if we consider what it is that makes our perception of physical objects a reliable guide, so to speak, to their nature, as it clearly is. It seems to be true that when we perceive physical objects we usually have what I have called good representations of them, if not something better. As I write this, I see my pen, and it looks$_1$ to me as though there is a blue and silver pen moving across a piece of paper about a foot before my eyes, and all this detail of my sense-experience is correct. There is such a pen, it has these characteristics, and it is where it looks$_1$ to be. And this applies generally, I believe, to the majority of the things we perceive. In perception it usually seems$_1$ to us as though there is a physical object of a certain sort and with certain characteristics and in a certain place; and usually the physical object perceived is of that sort, has those characteristics, and is in that place. So the majority of the sense-experiences occurring in perception are likely to be at least good representations of the physical objects in the perception of which they are involved. Furthermore, this seems not to be a contingent matter.

I suggest that in giving an explanation of these facts we will be led to a grasp of the true nature of the causal relation that must obtain between a perceived object and the perceiver's sense-experience. The explanation of these facts is, I believe, something of this sort: that it is necessary, if A is to perceive X, not only that X should play a differential part in bringing it about that A has a seeming, but also that X should

play its part in a way such that, if any physical object plays a part in bringing it about that a person has a sense-experience in that way, then it is highly probable that the sense-experience will be at least a good representation of that physical object. (When I say a sense-experience is at least a good representation of X I mean it is either a good representation of X or an optimal representation of X or represents X better than a good representation in some other fashion than that in which an optimal representation does, e.g., a sense-experience might represent the colour-qualities of X better than a good representation need do, whereas an optimal representation represents the spatial relations of X better than a good representation need do.) If the way in which X plays its part in bringing it about that A has a seeming has to fulfil the condition I have just mentioned, if perception is to occur, then it is easy to see why a perceiver's sense-experience must usually be a good representation of the object perceived. For if the perceived object must play its part in bringing about the seeming in such a way, then it is necessarily true that it highly probable that the seeming involved in each case of perception will be at least a good representation of the object perceived, and this entails that in the vast majority of cases the seemings involved in perception will be at least good representations of the physical objects perceived.

Thus I have suggested a further condition necessary for A's perceiving X. But before I can plausibly advance a set of conditions, of which this is one, that are jointly sufficient for A's perceiving X, I must meet a difficulty. The difficulty

relates to the fact that one and the same sense-experience both may and may not at one and the same time represent a physical object, since it may well represent that object as it was at time t, but not represent it as it was at time t_1, if the object has changed in the interval between t and t_1. We may therefore ask the question: "Given that the sense-experience involved in the perception of a physical object at t is likely to be at least a good representation of it, is it likely to be a good representation of it as it is, or was, at any particular time?" The immediate temptation is to answer: "The sense-experience involved in the perception at t of a physical object is likely to be at least a good representation of it as it is at a particular time, and that time is t". We have a natural desire to assent to the view that the sense-experience involved in the perception of a physical object is likely to be at least a good representation of it as it is at the time it is perceived. But then we may call to mind the fact that the causal processes by means of which physical objects, when perceived, bring it about that the perceiver has a seeming take time, and may of course take a very long time indeed. They may take so long that the sense-experiences they culminate in may not represent the physical objects that initiate them as they were at that time; indeed, these physical objects may not just have changed, but may even have ceased to exist. There is no difficulty in supposing that the distant star we are now seeing may not now exist. (It is one of the advantages of my account of perception that it is quite compatible with our making such a supposition.) Bearing in mind these facts, I think we are led to the view that in perceiving a physical object one is likely to have at least a good representation

of that object as it was when it played its part in bringing about one's sense-experience. Normally, the time-lag between the object's playing its part and the occurrence of the sense-experience is so tiny that it can virtually be ignored, but this is not always the case.

It is plain that I will have to make an alteration in the condition that I demanded be fulfilled by the way a perceived object brought about a perceiver's seeming. Let us now say that it is a necessary condition of A's perceiving X at t that X should play a part in bringing it about that A has a seeming at t, and that X should play its part in a way that is productive of good representations. And let us say that a way, M, in which physical objects may play a part in bringing it about that people have sense-experiences, is productive of good representations iff, if any physical object plays a part in bringing it about that a person has a sense-experience by means of M, than it is highly probable that the sense-experience will be at least a good representation of that physical object as it was when it played its part in bringing about the sense-experience.

I think it is far from implausible, if we employ this notion of what it is to be productive of good representations, to suggest that it is a sufficient condition of A's perceiving X at t that X should play a differential part in bringing it about that A has a seeming at t, and play its part in a way productive of good representations. What seems to me to be implausible is to suggest that it is a necessary condition of A's perceiving X that X should play its part in a way productive of good representations. Some qualifications must be made to this thesis, as expressed at present. What these are

will become apparent as we consider three matters.

First, we must take into account the fact that it might well be the case that under certain circumstances a physical object which brings about a sense-experience in a certain way, M, will be likely to bring about a sense-experience that is a good representation of itself, whilst under different circumstances if it brought about sense-experiences in way M it would be most unlikely to bring about a sense-experience that is a good representation of itself. Let us imagine that, contrary to what is presumably the case, hallucinations are often caused by a special type of process that is initiated by a small group of terrestial objects, and by no others. Let us suppose these objects emit some type of ray - let us call it an H-ray - which affects the brains of those within a certain range so that they are hallucinated. It is clear that normally when one of these objects produces a man's sense-experience, this sense-experience, being hallucinatory, is not at all likely to be a good representation of the object that produces it. But let us now suppose that the same object is taken by spacemen to another galaxy, and there it is found that the processes involving the object and a man, where H-rays from the object cause the man to have a sense-experience, usually result in his having at least a good representation of the object. This is found to be due to the presence of some factor in this galaxy which is not found on Earth. Now it is plain enough what we would want to say: that on Earth the process involving H-rays was not a way of bringing about sense-experiences that was productive of good representations, and could not be involved in perception; whereas in that galaxy it was a way productive of good representations, and could - and probably was - involved in perception.

To take these considerations into account, we must alter our definition of A's perceiving X, and say rather:

A perceives X at t iff X plays a differential part in bringing it about that A has a seeming, s, at t, and plays its part in a way that is productive of good representations in the general circumstances in which A has s and X plays its part in bringing this about.

We thus recognise that a way of bringing about sense-experiences is never productive of good representations simpliciter, but always productive of good representations in certain circumstances. But it will be noted that I have not demanded that X play its part in a way productive of good representations in the totality of circumstances in which A has s, etc., but only in the general circumstances in which A has s, etc. What do I mean by "in the general circumstances", and why do I not make the stronger demand? What I have in mind is something like this: there may well be a drug, which, when administered to subjects, has the result that the visual seemings they have which are brought about in the way or ways characteristic of vision are no longer likely to be at least good representations of the things that bring them about in this way. We would not, for this reason, want to say that the objects bringing about their visual seemings in the usual way or ways were not seen. This, I suggest, is because being affected by the drug is not a feature common to all the potential perceivers in a certain extensive portion of space for a certain considerable period of time, this portion and this period being the ones somewhere in which the perceivings in question occur. Only factors that apply generally throughout an extensive portion of space and for a

considerable amount of time are relevant to our enquiry when we wish to determine whether a way in which physical objects play a differential part in bringing about seemings is one such that a person in that part of the space-time continuum may properly be said to perceive a physical object in virtue of being affected in that way by the object so as to have a seeming. We need only take into account whether the way in question is productive of good representations in these general circumstances, i.e. under these conditions applying generally throughout a large portion of space and over a long period of time, when deciding whether a person and an object, both situated in that portion of space and in that period of time, can respectively be perceiver of, and perceived by, the other. We do not need to take into account whether the way is productive of good representations under less general conditions, e.g. in the circumstances where the person is under the influence of a drug.

The second matter I think we must take into account relates to any discussion in Chapter 6, Section 3. There I suggested that not only was A's having a sense-experience a matter of its seeming$_1$ to A as though something was the case, but also that there were at least five main species of seeming$_1$, viz., looking$_1$, sounding$_1$, smelling$_1$, tasting$_1$, and feeling$_1$. Now let us suppose that there is a way, M, in which physical objects play a differential part in bringing about people's seemings, which for roughly half the time brings about visual sense-experiences (a visual sense-experience being a matter of its looking$_1$ as though something is the case) that are in the vast majority of cases at least good representations of the physical objects which play their part thus. But let us

suppose that equally often tactual sense-experiences are brought about thus (a tactual sense-experience being a matter of its feeling$_1$ as though something is the case), and these are scarcely ever even good representations of the objects thus playing their part. Will this fact lead us to say that M is not a way, in which physical objects can play a differential part in bringing about seemings, that is productive of good representations? Will we not, rather, wish to say that M is productive of visual sense-experiences that are good representations, and is not productive of good tactual representations?

Let us therefore say that its looking$_1$ as though p, its sounding$_1$ as though p, its smelling$_1$ as though p, its tasting$_1$ as though p, its feeling$_1$ as though p, and any other equally general sort of sense-experience which we might at a future date encounter, are types of sense-experiences. (I ignore the contention that feeling$_1$ does not have the unity of the other sorts, and itself contains diverse sorts of sense-experiences. If this contention is correct, my account of a type of sense-experience needs only a little alteration.) I now offer the following definitions:

(1) A way, M, in which physical objects may play a part in bringing it about that people have sense-experiences is productive of good representations of type Z, iff, if any physical object plays a part in bringing it about that a person has a sense-experience of type Z by means of M, then it is highly probably that the sense-experience will be at least a good representation of that physical object as it was when it played its part in bringing about the sense-experience.

(2) A perceives X at t iff X plays a differential part in bringing it about that A has a seeming, s, of type Z, at t, and plays its part in a way that is productive of good representations of type Z in the general circumstances in which A has s and X plays its part in bringing this about.

The third matter for consideration is my account of what it is to have a good representation. This was given on p 149. According to this account, A cannot have such a representation of X unless it seems$_1$ to him as though there is an α, and X is in fact an α, where to say that a thing is an α is to indicate its specific nature. But if the causal relation involved in perception has, as I have demanded, to be (with certain provisos) productive of good representations, then it is surely too much to ask that when a man has a good representation of, say, Fido, it must seem$_1$ to him as though there is a dog, or in general when he has a good representation of an α, it must seem$_1$ to him as though there is an α. For in the case of feeling physical objects, the correct description of the seeming involved in this sort of perception is not normally "its feeling to us as though there is a man", or "its feeling to us as though there is an aeroplane", or "its feeling to us as though there is a wall". Probably in most cases of perception by feeling the correct description of our seeming will be something like "it feels to me as though there is something hard, dry, and flat" or "it feels to me as though there is something hairy and warm and trembling".

I therefore propose to alter my account of what it is to have a good representation, as follows:

A has a good representation of X as it is (was) at t iff it

seems$_1$ to A as though (as if) there is a physical object with a set of characteristics β (but not necessarily these characteristics only); and X is (was) a physical object that exists (existed) at t, and $\hat{\beta}$ comprises (comprised) a fair number of the characteristics that X has (had) at t.

(In the light of my discussion on pp 189-90 I have defined not simply what it is to have a good representation of X but rather what it is to have a good representation of X as it is (was) at a particular time.)

I have thus weakened my thesis, and now suggest that when one perceives physical objects it needs only to be the case that one usually has seemings properly describable as "its seeming$_1$ as though there is a physical object with such-and-such properties", where the physical objects in the perception of which the seemings are involved do have the properties represented in the seemings. Though I have weakened my thesis, this fact will not appear in the statement of my account of the perception of a physical object. This as follows:

A perceives X at t iff X plays a differential part in bringing it about that A has a seeming, s, of type Z, at t, and plays its part in a way that is productive of good representations of type Z in the general circumstances in which A has s and X plays its part in bringing this about.

(Where the technical terms I use have the meaning I attached to them when I introduced them, either in this chapter or the previous one, and the later account of what it is to have a good representation (the one I have just given) is understood to supersede the one I gave on p 149.)

I believe there is a great deal of truth in the account of the

perception of a physical object that I have just given. It is (subject to two provisos that I will mention at the end of this section) the best account I am at present able to give. It would be foolish of me to suppose that it is devoid of difficulties and insusceptible to improvements. However, I think a consideration of the cases in which we allow, or refuse to allow, that physical objects are perceived goes a long way towards recommending my account. I cannot myself think of a case where we would allow that perception occurred, even though one or more of the conditions I have described was not fulfilled; nor of a case where all the conditions are fulfilled where we would wish to deny that perception occurred (but see the discussion in the next section). If difficulty should arise, I do not think it will relate to the suggestion that I (and others) have made out that it is a necessary condition of A's perceiving X at t that X should play a differential part in bringing it about that A has a seeming of some type at t; rather, it will relate to the further condition I have specified, that X should play its part in bringing about this seeming in a way that is productive of good representations of that type in the general circumstances of the causal transaction between X and A's having the seeming.

Now that this further condition is necessary is suggested by the fact that all the normal cases of perception we acknowledge satisfy it. I now see this piece of paper, and it plays a differential part in bringing it about that I have a visual seeming.

But is not the way in which it plays this part, i.e. by reflecting light-waves emitted by the sun, which go on to affect my eyes and then my brain in certain fashions that are more or less mysterious, one which is productive of good visual representations in the general circumstances of the causal transaction between the paper and me? Isn't a way of producing sense-experiences which fulfils the condition I laid down always involved when I see, or otherwise perceive, any physical object at all? The ways may differ from case to case: if we consider only vision, there are causal processes involving mirrors or other surfaces that reflect light, there are others which envolve media such as spectacles or binoculars; But all these ways fulfil the condition I laid down. This conclusion is reinforced by consideration of a refined version of the example used by Grice, for a different purpose, of the specialist who can cause a man to have a good representation of a clock on a shelf by stimulating his cortex. Let us suppose that the specialist, having placed his device in the man's brain, waits till he sees that the man is looking at the clock on the shelf before activating the device. Here, it is plain, the man does not see the clock, at least, not if we suppose that the only sense-experience the specialist can produce by activating the device is a good representation of a clock on a shelf. Thus, the man does not see the clock. But the clock clearly plays a differential part in bringing about his seeming. For if the expert hadn't seen that the clock was being looked at by the unfortunate subject, he wouldn't have activated the device. I suggest the reason why we deny that perception occurs is that the way in which the specialist brings about the man's seeming is not productive of good

representations of whatever type the man's seeming belongs to, in the general circumstances of the causal transaction between the clock and the man. Imagine that the specialist had activated the device when he saw that the man was looking at something other than a clock on a shelf. Suppose he did it when there was a radio set there, just to baffle the man. Then there would have been no good representation of the object, the radio set, which played its part in bringing about a seeming in the way in question.

That the condition relating to the way's being productive of good representations is, in conjunction with the others I described, sufficient for perception is, I think, suggested by a case similar to the one I have just mentioned, but different in one significant particular. That is of a man who has been blinded, and is then fitted with a movable light-sensitive plate on his forehead which transmits impulses to a device implanted in his brain. As a result, when physical objects affect the plate by means of light-waves, he normally has at least good representations of them, just as he would if he still had the use of his eyes. I think that in this case we would be very tempted to say that the blind man had been given his sight back, and saw the objects affecting the plate. But his situation is like that of the subject of the specialist's whimsical experiments, except that the way in which the physical objects play their part in bringing about his seemings fulfils my proposed conditon, whereas the way in which the clock, via the specialist's intervention, played its part in bringing about the subject's seeming did not.

I have thus given, to the best of my ability, an account of what it is to perceive a physical object. I shall now go on in

the next section of this chapter to deal with certain possible objections to my account. In dealing with one of them I shall admit that there are what might be called "peripheral" cases of perception of physical objects, to which my account does not apply. But this admission will not cause me to alter my account: I shall, rather, argue that its scope is more limited than my treatment of the topic so far might have suggested. In the last chapter of my thesis I will, amongst other things, consider objections to my theory which spring from the existence of a wide range of things which can properly be said to be perceived. In the face of these objections I shall not give up my account of what it is to perceive a physical object, but I shall distinguish two senses in which, I believe, physical objects are said to be perceived, and suggest that my present account embodies a plausible analysis of the more basic of these senses.

SECTION 4. Objections to my account of the perception of a physical object.

I have used technical terminology, invented by myself, in giving my account of perception, so much is plain. But I do not think this lays me open to the sort of charges which Grice rightly made against Chisholm's version of the causal theory, that his theory made reference to notions that ordinary people may well not have, even though they have the concept of perception. For my technical terminology is all cashable - indeed, it is always cashed - in terms of everyday expressions which anyone who had the concept of perception might be expected to know and understand. It may be said that, on my view, the concept of perception (i.e. of the genus

of seeing, hearing, feeling etc.) that ordinary people have is rather complex. But I see no reason (a priori) why this should not be so.

A stronger objection, similar to the one which Grice takes note of (AS Supp. Vol 1961 p 144), relates to the question whether, if my account is correct, one could ever know that one was perceiving a physical object. For, on my account, this would involve knowing that there was a physical object which had played a differential part in bringing it about that one was having the seeming that one was having, and that it had played its part in a way productive of good representations, etc. But the normal man is incapable of specifying in any detail the ways his seemings are brought about, and even a scientist may admit there are details of the processes which remain as yet unclarified. So if one does not know the nature of the ways in question, how can one know that they are productive of good representations, etc.? The first point that I would make in answer to this objection is that it is quite possible that I should know quite important facts about the way in which something is brought about and yet not have any precise knowledge about what the way in question is. Suppose I am in London and my mother is in a small town in central France. A letter from her arrives for me one morning, and I know was posted the night before. I will be quite perplexed when I consider how it could have been conveyed to me so quickly, but one quite important thing I will know - that the way in which the letter has been conveyed is quicker than the normal one. However, the objector has a reply to make: that it is not necessary if I am to know that the letter has been conveyed in a remarkably speedy way that I should be able to

recognise the way in which it has been conveyed. All I need to know is that it has been conveyed and that letters usually take much longer to make the journey from central France to London. But in the case of knowing that the way in which a physical object has played a part in bringing it about that one has a seeming is a way productive of good representations, etc., it is necessary that one should be able to recognise the way in question, the objector will insist. For what must happen in this case is that I recognise that the way in which my seeming is brought about is the same as one which, as I have discovered for myself or have been informed, is productive of good representations, etc. And if it is the case that I have discovered this for myself, then I must have been able to recognise the way in question: how else could I have come to know that physical objects that played a part in bringing it about that people had seemings in that way were likely to have good representations, etc.? But I cannot recognise a way of bringing about seemings with which I am familiar unless I can give a detailed specification of the nature of the way, it will be asserted.

My reply comes in two parts. First, it is far from clear that I cannot recognise that certain phenomena are brought about in the same way unless I can give a detailed specification of the nature of the way. (Grice makes this point, op. cit. p 144). For instance, I may recognise that a piece of music is being rendered in the same way as I have heard it rendered before, without being able to specify in any detail the nature of the technique involved; I can recognise that a bowler has delivered two balls in the same way without being able to specify the way in any detail. I will be able to say something about the way in which the phenomena

were produced, in both cases, but then the ordinary man is able to say something about the way physical objects affect him when he perceives them. My second point is that it is equally unclear that my knowing that the letter I have received has been conveyed in an unusually fast way and my knowing that I am perceiving a physical object, which, inter alia, involves my knowing that I am being caused to have a seeming in a certain way, are comparable in the way which the objector assumes. It is clear that in order to know that the letter has been conveyed in the way it has, I must be able to give reasons that support the proposition which I know. But must this be true when it is a matter of my claiming to know that I am perceiving a physical object? It is plain that there are propositions which we can properly be said to know even though we cannot provide evidence, give reasons, for their being true. Perhaps, then, we can know that we are perceiving a physical object, and thus that the seeming we are having is brought about partly by a physical object acting in a way productive good representations, etc., even though we cannot truthfully say to ourselves: "I recognise the way this seeming is brought about and I know it is the same as one which I have learned to be productive of good representations, etc."

The final objection that I will discuss relates to the fact that we are said to see things on television and the cinema screen, hear things on the radio or on a record. It may be said against my view that if it is correct, such cases of seeing and hearing will be classed in with such cases of seeing as that which is now occurring with regard to me and the paper on which I am writing and such cases of hearing as that which is now occurring with regard to

me and the workmen talking in the yard outside my open window. It may be said that the sense of "see" in which I now see this paper is different from the sense in which I saw Hitler on television last week; that the sense of "hear" in which I now hear the men outside is different from the sense in which I heard Bessie Smith on record not so long ago; but that on my account of perception no distinction would be made between these cases, and all alike would count as cases of perception, on the same level. Now it is plain that this objection can only be valid if the assumption it contains is correct, that I perceived Hitler and Bessie Smith in the cases I just mentioned in a different sense of "perceive" from that in which I now perceive this paper and the workmen in the yard. But I am not persuaded that this assumption is correct. Rather, I believe that these cases of perception by television, on the cinema screen, by radio, on record, and in similar ways are to be compared with the case of subliminal perception I mentioned on pp 164-6. There I argued that a man might properly be said to perceive a physical object even though he did not have a seeming at the time of perception, and not in a different sense of "perceive" from that in which we normally perceive. Rather, I suggested that perception without having a seeming was a peripheral case of perception, and the cases of perception which I was giving an account of were focal ones. I believe the same is true of the cases of perception which the objector is now making reference to: they do not satisfy the conditions I have laid down for perception, but it does not follow that they are perceived in a different sense of "perceive" from that in which most things are perceived. They are cases that to some degree differ from, but, to a greater extent, resemble the central cases of perception.

It may be asked in what respects I think they fail to satisfy the conditions I have laid down for perception. I think they more or less fail to fulfil the condition that demands that the seeming involved in perception must be brought about in a way productive of good representations, etc. . . . For when we see something on television, and, even more obviously, on the screen, it is not the case that it is highly probable that we will have at least a good representation of it as it was when it played its part in bringing about the visual seeming. The most obvious way in which the seemings involved in such cases are defective is that they usually misrepresent (insofar as they represent at all) the spatial relation of the object perceived to the perceiver, both in respect of distance and direction. So I believe that one who accepts my account of perception, or one like it, can give a plausible explanation of the fact that perception by television, or the cinema screen etc., are only peripheral, and not focal, cases of perception, and also of the fact that they are cases of perception in a non-metaphorical sense, i.e. not cases of perception in the sense in which perceiving the point of an argument is. For the similarities between these peripheral cases, and the central cases of perception are obvious to one who accepts my account of perception: in the peripheral cases the object perceived does play a differential part in bringing about a seeming, and in a way not much inferior to that found in the focal cases of perception.

I conclude that, though this last objection does not undermine my thesis about perception, it does bring into a clearer focus the nature of the enterprise I have been undertaking. That is to give an account of the essential nature of the central, focal, cases of

perception of physical objects. I am thus able freely to admit that these are cases of physical object perception that are incompatible with my account. But I suggest that these cases both are rare in comparison to the number of those which satisfy my proposed conditions and can naturally and without difficulty be explained as offshoots of, and peripheral to, those central cases.

SECTION 5. Conclusions.

In this chapter I attempted to give a satisfactory account of what it is to perceive a physical object, at least in the central, focal cases of perception which, I believe, make up the large majority of all the cases of perception that are to be found. I did this by suggesting conditions for perception that related to the way in which the perceived object brings about the perceptual experience. I first proposed that the perceived object must play what I called a differential part in bringing about the perceptual experience, and then suggested that it must play it in a way that is productive of good representations of the type to which the perceptual experience belongs in the general circumstances in which the perceptual experience occurs and the object plays its part. I gave a full explanation of the meaning of the expressions I introduced to facilitate the formulation of my account. If I am correct, then it will follow that the traditional view that perception involves representation has some truth in it; representation, however, figures in perception in a less obvious way than has been thought.

I will now go on to consider some criticisms of causal theories

of the type to which mine belongs which relate to the width of the range of physical objects that we perceive. As a result, I will be led (as I said on p 200) to distinguish two senses in which physical objects may be said to be perceived, the more basic of which, I hope, I have already analysed in this chapter, and not without a certain plausibility.

CHAPTER EIGHT: THE RANGE OF THE OBJECTS OF PERCEPTION. TWO SENSES OF "PERCEIVE".

SECTION 1. Criticisms of my theory that relate to the range of the objects of perception.

I want now to consider two sets of criticisms of my position. The first arises from the fact that sounds, tastes, and smells are often perceived. It could be advanced as follows: "You have said that the perception of a physical object must involve the object's playing a differential part in bringing it about that the perceiver has a seeming. Now the physical objects you have had in mind when formulating your theory have clearly been things like men and animals, buildings, pieces of furniture, machines, and the like. All these are three-dimensional things, composed of matter, exclusively occupying the space they happen to be in at any time, and resisting the entrance of other such things to a greater or a lesser extent. But there are physical objects of quite different types that are perceived: there are sounds, smells, and tastes, for a start. What is involved in the perception of a sound, or a smell, or a taste? We can say this at least, that if we are talking of seeing a car and hearing the sound it makes, and we say that we perceive both the car and the sound it makes, the sense of "perceive" used in both cases is the same. Of course, in one case there occurs an instance of one species of perception, seeing, and in the other an instance of another species, hearing. But the phenomena occurring in both cases fall in the same genus, perceiving. Seeing a car, feeling it, hearing the sound it makes, smelling the smell it makes, tasting the many tastes it would give us if we went round it licking it - these are

all instances of perceiving things - a car, a sound, a smell, and some tastes - and in all of these cases we may say that something is perceived, and in exactly the same sense of "perceive". The point may be made in another way: what goes on when we see or feel a car, or a chair, or a dog, must be similar in nature to what goes on when we smell, hear, and taste smells, sounds, and tastes respectively. The objects of perception are different, and there is some difference in nature between seeing, say, and hearing. But, and here is the important part, if seeing a car, or a chair, or a dog, qua perceiving them, is to be given a causal account, so must hearing a sound, qua perceiving it. Seeing a car and hearing the noise it makes could not differ so much that one involved a causal relation between perceived and perceiver, and the other did not".

Having established these points, our objector is now able to complete his attack, as follows: "When we inquire whether it is reasonable to suppose that the hearing of a sound, the smelling of a smell, and the tasting of a taste can be analysed as the sound causing the hearer, the smell causing the person smelling, and the taste causing the person tasting, to have a sense-experience, we find that it is not. But if these cases of perception of physical objects cannot be given a causal analysis, it follows not only that your proposed account of the perception of a physical object is too ambitious, as there are some physical objects to the perception of which it does not apply, but also that it cannot even apply in the particularly favourable cases that you chose to use to bolster up your theory. For we saw that hearing a sound made by a car, and seeing the car could not differ so much as cases of perception that

one involved a causal relation between perceived and perceiver, and the other did not. So your account cannot even apply to the cases with regard to which you developed it, those of the perception of animals, plants, manufactured material things, and the like".

This argument bases itself on the fact that we perceive sounds, tastes, and smells. But the second set of criticisms I want to consider relates to the facts of perception by sight. They are advanced by Mrs. J. Teichmann in her paper "Perception and Causation" (PAS 1970-71). Having declined to criticise the causal theory on the grounds that it contravenes what she calls "the slogan that the cause and the content of perception must necessarily be different", she declares (pp 37-8): "The real objection to a causal theory lies rather in the nature and variety of things which can be seen. A rough and ready expression of the objection can be made by borrowing the slogan above as follows: for some objects of sight it <u>is</u> the case that cause and content must be different . . .. Anyone making any sort of reasonably detailed report of say, the view from a hilltop, or the look of a room, will quite typically mention many or several material objects (trees, rivers, chairs, tables): describe their colours and spatial relations: and refer also to some of the following things: haze, the sky, distances, sunlight, apparent colour (the purple of the mountains), glints, shines, gloss, contrasts, movement, shadows, similarities, bunches and collections, and also "the overall effect." There is no good ground for saying that these are not all elements of "the scene", but there are difficulties involved in saying, concerning some of them, that they are elements of an overall cause." The difficulties she alludes to arise in the cases, for

instance, of seeing darkness or seeing the sky. She compares the case of seeing a sunbeam with the more problematic one (for the causal theorist) of seeing the sky. She declares (pp 40-1): "A sunbeam is a quasi-object, that is to say, it can (on occasion) be picked out visually, it can move, things happen to it, i.e., it can be bent by being directed through glass or water, and it can do things (cause fires). It is possible to think of a sunbeam as a cause without knowing anything about its make-up. Nevertheless (as I have already said) it is natural to ask "But how is it we can see it, as it's not solid?" At this level (scientific) theory comes in, in the form of a contingent identity statement to the effect that a sunbeam is a stream of light-waves. It is arguable whether this has any bearing on a (philosophical) causal theory concerned with "the notion" of seeing a sunbeam . . . While it is possible to think of a sunbeam as a stream of light-waves, it is not possible to see it as such.

"The sky differs from a sunbeam in both respects. Unless you happen to believe that the sky is a blue steel dome (E.g.) it is not possible to think of it as a cause. The sky cannot move, do things, or have things done to it: it cannot reflect things, and nothing emanates from it. Secondly, the sky (like the sunbeam) cannot be seen as a collection of light-waves, but worse still, it cannot even be truly thought of as such a collection, for that is not what it is, even contingently . . .

"I see the teapot because it is there".

"I see the sky because it is there".

Is the "because" a causal "because" in both cases or only in the first case, or in neither case? I think if the first alternative

is insisted on, then it will have to be admitted that the notion of causation has here become very attenuated indeed".

These, then, are the two sets of criticisms that I want to consider. They are directed towards the refutation of my analysis of the perception of a physical object, and are meant to do this by proving that some cases of physical object perception, and others that are relevantly similar to the ones I have analysed causally, are incapable of such analysis. My reply to these criticisms, to be found in Section 2, will consist partly in showing that some of these cases are not relevantly similar, and partly in showing that the others are not incapable of such analysis. I will support my argument by proposing a causal analysis of the most significant of the latter cases. Thus, I hope to refute these criticisms. But, even if they are unsuccessful, they will have done a valuable service. For they will have drawn our attention to the fact there are other sorts of physical objects that are perceived, e.g., sounds, smells, tastes, sunbeams, shadows, and rainbows, than those which philosophers usually restrict themselves to when they study the perception of physical objects.

SECTION 2. Reply to the criticisms relating to the range of the objects of perception, PART 1:sounds, smells and tastes.

I advanced a theory along causal lines of the perception of physical objects. By "physical objects" I meant entities capable of individuation which have a place in the common space in which human beings are located, and the contents of which are publicly perceptible and thus the subject-matter of physical science. But the things the perception of which I used as examples in advancing my

theory were all examples of the sort of thing that W.D. Joske calls "a material object" in his book "Material Objects". He singles out some things to receive this honorific title because of their fundamental importance for human knowledge and utility. They are three-dimensional entities, composed of matter, bounded by precise surfaces, publicly observable, enduring through time, behaving as manipulable units, and bearing qualities from diverse determinable ranges. Now it is clear enough that if my account is satisfactory in the case of the perception of such material objects, it is also satisfactory in the case of two other sets of things, instances of which are readily perceptible. The first class is that of fluid particulars, e.g., pools of water, heaps of sand, pinches of salt. These things differ from material objects in that they lack manipulable unity - they are not cohesive to the extent that they can be dragged about or lifted whilst retaining their unity. The second class is that of volumes of gas, vapour, and the like, e.g., clouds in the sky, clouds of mustard gas, blasts of wind. These, of course, do not possess manipulable unity, nor do they have precise surfaces. However, I suggest that such things as these, as well as fluid particulars, do not present the causal theorist with any problems which material objects have not already presented him with. Such things as these can produce sense-experiences in the same ways that physical objects do, and can be represented by sense-experiences in the same fashion.

The physical objects which the critic had recourse to were, rather, sounds, smells, and tastes. He suggested that there were difficulties in giving a causal analysis of the perception of these. I will go on to argue that there are no such difficulties, and that a causal analysis is demanded in their case as much as in the case

of material objects. But first I must meet a possible objection to my tactics. For it may be said that, since sounds, smells, and tastes are not physical objects at all, I have conceded too much to the critic, and should rather have argued that cases of perception of sounds, smells, and tastes are not relevantly similar to cases of perception of physical objects. One who makes this objection must do so on the grounds that sounds, smells and tastes are not particular things at all, but are, rather, qualities of true physical objects like men and mushrooms. But I believe even as cursory an examination of the nature of sounds, smells, and tastes as the one which follows will suffice to undermine this objection. (The following remarks are largely derived from Professor Urmson's lecture "The Objects of the Five Senses", PRA 1968.) What sort of thing is a sound, for instance? Surely it is an individual thing existing in physical space. Sounds may be counted. They can survive the destruction of the physical objects that produce them (e.g. the sound of the explosion survives the shell that exploded), and are identifiable without reference to those objects, both in the sense that we can describe them in terms which make no reference to those objects, and in the sense that we can pick them out without necessarily being able to pick those objects out. A sound lasts for a period of time, and occupies a volume of space, though with no distinct boundaries, and not to the exclusion of other sounds. It extends outward through space from the point from which it emanates, though it does not always have to extend back to the point of its emanation - it may have died out there whilst persisting for a short while in more distant places. It seems clear enough, then, that sounds are particulars,

or, rather, that very often when we talk about sounds we are talking about particulars. Suppose I hear one rifle firing, and you hear another. It is clear that in one sense we do not hear the same sound. But if the two sounds are qualitatively identical, it would not be improper to say that the two rifles made the same sound. An expression like "a loud cracking noise" can thus be used to stand either for a particular or for a universal, or, at least, a type with tokens. I suggest the same can be said of smells and tastes. Things of both these types are located at a particular place in space, are given off or produced by other physical objects, and can be counted.

The case is quite different, however, for what might be thought the parallel visual phenomena, i.e., looks. Looks are not located in space, they are not things that are given off by the objects to which they belong, and they cannot be thought of as existing apart from these objects. There is only one sense in which two different things can have the same look, and two things which were qualitatively identical in respect of visually perceptible properties could not fail to have the same look. We may thus agree with Urmson who declares (op. cit., p 130): "To talk about sounds is primarily to talk about physical phenomena caused and emitted by things; to talk about looks is to talk about things in so far as they are objects of sight." He has already argued that this fact is responsible for the dissimilarity between the use of "has an f look" and "has an f sound". He writes (op. cit., p 129): "We say that the Alps have a majestic look, but that they are high, rather than that they have a high look. But if we take an adjective clearly descriptive of the audible, such as "reedy", we find that we may say that the oboe

has a reedy sound, just as easily as that it has a plaintive sound. The explanation of this fact is that there is a sound to be described, and we may say that it is reedy or slightly acid. But there is not a look to be talked about, so we cannot say that a look is red or tall". I think he makes the point rather badly, but it is surely this, that, on the one hand, unless some sounds are particulars it is hard to see how sounds could be said to be loud, quiet, harsh, high-pitched, and in general to have the audible characteristics they are said to have; whilst, on the other hand, if looks were particulars, we would expect them often to be said to possess visible characteristics such as colour and shape and size which in fact are rarely said to belong to them.

Thus, I do not believe I can argue that sounds, smells, and tastes are not physical objects, and I shall therefore attempt to silence my critic by showing that there is no difficulty in giving a causal analysis of the perception of such physical objects. I will begin my discussion by asking what difficulties are supposed by the objector to render implausible a causal analysis of the perception of sounds, tastes, and smells? Let us take the perception of sounds as a representative of all three sorts of perception. The causal theorist would have to analyse "A hears sound S" on the lines "Sound S brings it about that A has a sense-experience". Now it may first be objected to this account that a sound, like a smell or a taste, is not one of the things we accept as being able to act on people. It is a category mistake, it may be said, to attribute causal agency to any of these things. But this is clearly false. A loud noise occurring unexpectedly will cause me to jump. The sound of a violin brings tears to my eyes. The smell of garbage turns my

stomach. The taste of lemons causes me to screw up my face. However, it may be argued that though sounds, smells, and tastes could affect us in various ways, the things that bring about our sense-experiences are never sounds, smells or tastes. For instance, if I describe the way the sense-experiences involved in my hearing the sound of a violin are produced, I will mention a violin, sound waves, a medium conducting these, perhaps something like a radio set, my ears, and brain. No mention of a sound. If I describe tasting an apple, I will mention the apple, my taste buds, my brain. No mention of a taste. And so on in all the other cases. So if hearing a sound involves a sound acting on us, we never hear sounds. And the same argument will apply to tasting tastes and smelling smells.

This is a stronger objection to the causal theory. But it seems to bring in a far wider issue. If we say that in perception we are never acted upon by sounds, smells, and tastes, we are virtually saying that these things never act on us at all. For it is rare for them to act on us unless we perceive them. If a bullet hits me, it will affect me whether I feel it or not; a sound cannot please or scare or surprise me unless I hear it. But if this is so, sounds, smells, and tastes seem to have become unnecessary entities. Once upon a time they were needed to explain why a man jumped when a dog barked, why a man screwed up his face when he drank lemon juice. Now we explain these occurrences by reference to waves of a certain type, and the action of particles of a lemon on the man's taste-buds.

Now a causal theorist who agrees with the objector that it follows from the fact that we refer to dogs and sound-waves when explaining the causation of a man's sense-experience when he hears

dogs yapping that in this case the sound of the dogs' yapping can have played no part in causing the man's sense-experience, may agree with the objector on the further point, that if the causal theory of perception is correct, and applies to sounds, no sound is ever heard. But the causal theorist may wish to say to the objector that as it is true that no sound is ever heard, it is no objection to the causal theory that it implies that this is so. For the causal theorist may take up the following position: "The everyday view of perception is indeed causal. Seeing a material object is being caused by it to have a sense-experience. Hearing a sound is being caused by it to have a sense-experience. The phenomena called "sounds", "smells", and "tastes", which are said to be perceived were invoked by men of an earlier age to explain the occurrence of certain sense-experiences . . . Now we can explain these occurrences by reference to material objects and certain waves and particles. So we causal theorists no longer have any reason to believe in the existence of sounds, smells, and tastes, and will not, strictly, speak of their being perceived. For we have found out that there are no such things. We will only talk of the perception of material objects and other things composed of matter, for the occurrence of all sense-experiences can be explained by reference to these alone. Ordinary people, however, are in a mixed-up state. They talk of hearing sounds, etc., and by this they mean that sounds are acting upon them, but they are familiar enough with science to know that sounds don't really exist and that the way our sense-experiences come about can be fully explained without reference to sounds. They are like people who have from time immemorial attributed the occurrence of madness to possession

by devils, but have recently been taught that there are no demons and that madness is the result of malfunctions of the brain. In ordinary conversation, they will say of a lunatic "The evil spirits have got him", whilst if they are asked to give a serious explanation they will refer to a malfunction of the brain."

To recap this argument and counter-argument: the objector has argued that if the perception of a sound is a matter of the perceiver being caused by the sound to have a sense-experience, then no-one ever perceives sounds. For, when describing the causes of sense-experiences, we never make mention of sounds. But as people do perceive sounds, the causal analysis of such perception must be wrong. The counter-argument given by the causal theorist is that a man's perceiving a sound would be a matter of the sound's causing him to have an experience, and that the fact that it follows from this that we do not perceive sounds is not an objection. For we do not in fact perceive sounds. Sounds, smells, and tastes are theoretical constructs invoked at an earler stage of civilisation to account for the production of certain sense-experiences. Now we can, and do, give this account without needing to refer to these entities. So they must now be rejected as non-existent, just as the demons that were supposed to cause madness must be rejected. The fact that ordinary people continue to talk of perceiving smells, sounds, and tastes only shows their confused state of mind.

But this counter-argument has a very objectionable feature: it treats sounds, smells, and tastes as theoretical entities, things that are not themselves perceived but are presumed to exist because the supposition of their existence helps us to explain the perceptible phenomena. But it is quite plain that the ordinary view is that

sounds, tastes, and smells are perceptible phenomena, and that our reason for believing in their existence is that we believe we perceive them. The theorist's description of the status of the concepts of sound, smell, and taste seems to be wrong. It is quite different from the status of the concept of an evil spirit: those who believe in evil spirits are ready to admit that these things are not themselves perceptible, but are belived to exist because perceptible phenomena seem to call for this supposition if they are to be explained. One who denies the existence of sounds, tastes, and smells on scientific grounds is, rather, like the man who denies the existence of the sky, if that is understood to be a coloured dome mounted on the earth. He is saying that something that appears to be there isn't really there. But while we can give up our belief in the existence of the sky without fear of involving ourselves in scepticism with regard to the senses, the belief that we have always been deceived in our acceptance of sounds, tastes, and smells, which form a large sub-class of the things we think we perceive, cannot be entertained without casting strong doubts on the reliability of perception in general.

The causal theorist would therefore be well advised to take a different line about sounds, smells, and tastes. And I think a far more plausible one does present itself. It is to suggest that the objection he is facing is based on a false suppostion, viz., that is is incompatible with a sense-experience's being in part produced by a sound, smell, or taste that a complete account of the way in which it is brought about should make no overt mention of any of these physical objects. The situation is, I think, similar to one where a scientific explanation is given of the demolition of a house when

struck by a bolt of lightning, or of the fall of rain on a particular spot, or of the effect of a tornado on a boat at sea. In these cases, the explanation of the phenomena in question may make no overt reference to bolts of lightning, clouds, or tornadoes, but involve reference to discharges of particles, condensed water vapour, air currents, and the like. But we would not want to say that for this reason it was to be supposed that a lightning-bolt, some clouds, or a tornado had nothing to do with the phenomena, played no part in bringing them about. Rather, we should want to say that in some sense the things referred to in the scientific account were the same as those referred to in a common-sense account of the same phenomena, and that the two accounts were alternative descriptions of the causes of the phenomena, one of which might well be superior, but neither of which was incorrect. I suggest that the same is true of the accounts of the cause of an auditory sense-experience, where one is in terms of the effects of a sound, and the other in terms of the effects of sound-waves, and of the accounts of the causes of olfactory and gustatory sense-experiences, where one is in terms of the effects of a smell or a taste, and the other is in terms of the effects of certain particles given off by physical objects. To give an example: we would not think there was anything incompatible between our everyday explanation of a man's giving a surprised start in terms of the effect on him of a sudden noise and a more scientific one in terms of the effect on him of certain waves which affected the sensitive parts of his ears. If asked the reason for this, we would probably say that it was that the two explanations somehow referred to the same things.

At this point in the argument there seem to be two things I ought

to say: first, that I think it is true that there is no incompatibility between the two sorts of explanation; that the reason for this is that in the case of such pairs of phenomena as discharges of particles of a certain type and bolts of lightning, sound-waves and sounds, and particles of a certain type given off by physical objects and smells, the two members of each pair are in some way to be equated; and that to equate them in some way is the only plausible course open to us when faced with the facts. Second, that the philosophical problems that this equation poses are considerable, and demand more space and more ability that I at present possess if they are to receive proper treatment. I believe there is no reasonable alternative to the view that a sound happens to be in some sense the same as a set of waves of the type we call "sound-waves", and that smells and tastes are in some sense the same as certain groups of particles given off by physical objects. For what are the alternatives? One I have already discussed, that these things are not physical objects at all, but are qualities of physical objects. A cursory examination of what we think it proper to say of them convinced us that this view is untenable. Another is that sounds, smells, and tastes are sense-data, mental entities to which a perceiver has privileged access of some sort when he hears, smells, and tastes physical objects. But this view is not only unattractive philosophically, as committing the holder to a belief in sense-data in an objectionable sense of the term, but it also runs counter to our everyday ideas about sounds, tastes, and smells. For it is clear that we wish to locate these in the public space in which the physical objects from which they emanate are located. Another alternative would be to suppose that these things exist, but that they are causally inefficacious: but this view, like the previous one, is

unattractive philosophically, involving the supposition of a mass of causally idle physical objects, and in conflict with common-sense, which often attributes causal agency to them. The final alternative that appears to be open is to deny the existence of sounds, smells, and tastes altogether. My criticisms of this view have already been advanced on p 220. Thus, in the absence of any plausible alternative, I feel I am justified in presuming that my view of sounds, smells, and tastes is correct, even though it involves difficulties that I cannot at present discuss adequately.

I will now move on from this discussion of the criticism that sounds, smells, and tastes, despite what ordinary people believe, are causally inefficacious, to consider whether a plausible analysis can be given on causal lines of our everyday concept of the perception of sounds, smells, and tastes. For so far I have only argued that such an analysis is not impossible. Let us therefore attempt to analyse "A perceives a sound, S", in the belief that what holds good in this case will hold good for the perception of smells and tastes. It seems to me to be true, first of all, that A cannot perceive S at t unless S plays some part in bringing it about that A has a sense-experience at t. This is shown by considering a case similar to the one Grice employed when discussing the perception of material objects (mentioned on p 100). Suppose an expert can, by inserting a needle into a man's brain, bring it about that it sounds to the man as though a clock is ticking. Suppose that the expert inserts the needle when the man is placed near a ticking clock, but with his ears blocked with cotton wool. Why in such a case do we refuse to say that the man hears the clock's ticking? Is it not because the sound of the clock's ticking plays no part in bringing

about the man's sense-experience? But clearly it is necessary that the sounds should do more than just play any part. Let us suppose that the insertion of the needle makes it sound to the man not as though there is a clock ticking but as though a bomb has just exploded in the vicinity. Suppose that the expert is preparing to insert the needle when a bomb explodes in the vicinity. The expert gives a start, and involuntarily pushes the needle into the man's brain, causing it to sound to him as though a bomb has just exploded. In this case it would not be true to say that the man perceived the sound of the explosion, even though this caused the expert to jerk his hand and insert the needle. The sound must therefore play its part in bringing about the sense-experience in a way which fulfils certain conditions. I suggest that we could easily find examples similar to those used in Chapter 7, sections 2 - 3, to show that, if a person A is to perceive a sound, S, at t, it must be the case, first, that S plays a <u>differential</u> part in bringing it about that A has a sense-experience at t; and, second, that S plays its part in a way that is productive of good representations of the type to which A's sense-experience belongs, in the general circumstances in which A has that sense-experience and S plays its part in bringing this about. (Where the terms of art here employed are defined as in Chapter 7, sections 2 - 3).

A further condition, over and above those relating to the nature of the causal relation between S and A's sense-experience, must relate to the nature of A's sense-experience itself. It is plain that A does not have to have a good representation of S at t if A is to perceive S at t. Indeed, all that seems to be necessary is that A should have a seeming at t. (My definition of "have a

seeming" is to be found of p 171). It may be objected that if A is to perceive a sound, it must seem$_1$ to A at least as though there is a sound. But if my view of sounds is correct, they will be perceptible by other senses than hearing. One who is enabled to see the sound-waves spreading out from a vibrating body through some medium will, on my account, be seeing a sound. I suggest it is not an unusual occurrence for us now to <u>feel</u> sounds (nor would it be unusual for us to describe the experience as "feeling a sound"). The cases I am thinking of are those where the sound-vibrations are so fierce that they are perceptible by feeling, e.g. in the case of the deeper pipes of an organ or of a pneumatic drill. Sounds can break glasses; they can also cause objects to vibrate to a degree that is perceptible by touch. So sounds are perceptible otherwise than by hearing. But it does not seem to me that in cases of perception of sounds by sight and feeling the proper description of the sense-experience occurring would always be "its seeming$_1$ to someone at least as though there is a sound."

I suggest that the conditons I have mentioned are separately necessary and jointly sufficient for A's perceiving S at t. If I am right, or something on these lines is correct, then it follows that cases of perception of sounds furnish the critic of the Causal Theory with no ammunition at all. Rather, what has come to light is that we would naturally analyse the perception of a sound on the very lines that the account of the perception of a physical object that I gave in Chapter 7 would have led us to expect. I suggested a causal theory of the perception of physical objects; sounds, it is agreed, are physical object; we find that it is natural to give a causal account of the perception of sounds. I believe that a similar

analysis, justified in the same way, could be given for the perception of tastes and smells. (Indeed, I see no reason why it should not be extended yet further to the perception of some other things that emanate from material objects, e.g. sunbeams and other beams of light, and heat-rays). I conclude that, since a causal analysis must be given for the perception of sounds, tastes, and smells, the critic of the Causal Theory cannot draw upon such cases of perception to aid him in his attack on the account I have given of the perception of a physical object.

SECTION 3. Reply to the criticisms relating to the range of the objects of perception, PART 2: the objects of perception mentioned in Mrs. Teichmann's "Perception and Causation".

Mrs. Teichmann adopts as her slogan against the Causal Theory the statement "For some objects of sight it is the case that cause and content must be different." (PAS 1970-71, p 37). She mentions certain objects of sight for which she thinks this is true. These, to my mind, fall into two classes: those which are particulars and those which are not. I will deal with the second class first, and try to show that what Mrs. Teichmann alleges about them is not fatal in its implications for the Causal Theory.

This second class comprises such things as colours, spatial relations, and similarities and differences. She mentions them on pp 37-8, not distinguishing them from such things as shadows, reflections, lightning, and surfaces, all of which are clearly particulars, if they are anything at all. Now I am willing to admit that the perception of colours, spatial relations, similarities

and differences is not capable of causal analysis, or at least not of the causal analysis which I have suggested for the perception of physical objects. But this does not seem to constitute a serious objection to the causal analysis of the perception of physical objects. For the latter objects of perception are particular things, whilst the former are not. For surely colours, spatial relations, similarities, and differences are universals. It is indeed the case, as Professor Urmson says, that "philosophers have often talked as though colours were like glows, emitted by a thing but condensed into a film on the thing's surface". ("The Objects of the Five Senses", PRA 1968, p 126). But such talk, as he says, is wrong. However, Mrs. Teichmann has little time for one who gives such an answer to her objection. For, speaking of the causal theorist's claim that sense of "see" in which we see colours and the like is quite different from the sense in which we see material objects, she declares (p 38): "(This answer) simply asserts that there are different senses of "see" for no other reason than that there are different kinds of things seen . . . it looks as if the assertion that there are different senses of "see" is merely a way of stating the fact that the objects of sight are various". Now, if my argument had been "X and Y, which are both objects of sight, are of different ontological status, therefore the sense of "see" in which X is seen must be different from that in which Y is seen", then, I agree, Mrs. Teichmann's criticism would be valid. But what I am suggesting is that if we find that the analysis of perceiving X that seems appropriate to us does not seem to fit the perception of Y, this discovery is not necessarily fatal to the analysis, given that X

and Y are of widely different ontological types. A theory of perception that provided a similar analysis for the perception of all the objects of perception would in virtue of this fact be preferable to the Causal Theory, I admit. But I believe that no plausible theory can be advanced that does this. My position is the same as that of the man who gives a different analysis of the sense of "know" in "I know Jones" and "I know that I am a man". The difference in ontological status between the objects of knowledge involved in the two cases gives us some reason for supposing that the difference in the analysis is not unfounded. It is surely not automatically an objection to the Causal Theory of Perception that it can only be applied to a certain range of objects, viz., physical objects. I willl now move on to those particular things which Mrs. Teichmann considers to be objects of perception, but incapable of playing a part in bringing about the sense-experience involved in their perception. I will deal with them in three groups.

The first comprises such things as glints, shines, edges, lightning, the Aurora Borealis, and sunbeams. I can see no reason why any of these things should be thought causally ineffecacious. Indeed, Mrs. Teichmann says as much about the sunbeam (p 40). She mentions that it is not possible to see a sunbeam as a stream of light-waves, and seems to think that this poses a problem for the causal theorist if he argues that there is a contingent identity between a sunbeam and a stream of light-waves, but I cannot grasp why she finds this problematic. For it does not seem to me to be necessary if I am to see X, which is an α, that I should be able to see it as an α. This paper which I now see is, no doubt, a conglomeration of tiny particles of which I have

only the remotest knowledge, but I cannot see it as such a conglomeration.

The second comprises such things as the sky and rainbows. Mrs. Teichmann argues that the sky cannot act upon, or be acted upon by, anything. It cannot be identified with any of the phenomena that science reveals to uss. (pp 40-1). So it cannot be the cause of sense-experiences. But what conception of the sky is Mrs. Teichmann adopting when she makes these statements about the sky? Common-sense reasoning is enough to persuade us that the sky is not a coloured bowl covering a flat earth. Science later informs us that the fact of our seeming to see a coloured bowl covering the earth is to be explained in terms of the scattering of sunlight by the gases composeing the earth's atmosphere. (A similar phenomenon relating to rain drops accounts for rainbows). What then has become of the sky? It seems to me we can take one of two courses: first, we can identify the sky with the groups of gas molecules that scatter the light-waves, or, second, we can say that there is <u>really</u> no such thing as the sky, but to continue talking about seeing the sky (to give this up would be pedantic), but to mean no more by this than that we have certain sense-experiences caused by the scattering of sunlight by gases in the atmosphere. Now it is clear that Mrs. Teichmann is taking the second course. The first, indeed,would be incompatible with her criticisms of the causal theory relating to the sky. For one who takes the first course identifies the sky with certain entities revealed by physics, and there is no reason why these should be thought causally inefficacious. But if she takes the second course, her criticisms are empty. For how

can she demand of the causal theorist that he bring into the explanation of the occurrence of certain sense-experiences a reference to an entity which she herself holds to be non-existent? She cannot hold it against him that on his theory the sky cannot be perceived, for that is her own view. Or, rather, she has admitted that the sense in which the sky can be said to be perceived is a very special one, adopted to avoid pedantry. How then can she draw inferences about perceiving in the standard sense from the case of perceiving the sky? The same arguments would apply in the case of perceiving rainbows.

The third class of supposedly problematic objects of perception comprises things like shadows and holes. But are such things really incapable of causal efficacy? A shadow that looms up suddenly may terrify me, a hole may cause me to stumble, or wet my feet in the icy water beneath the ice. Someone might deny that there are such things as shadows and holes, because they have no physical basis. But then he could scarcely demand that the perception of such nonentities (if it were to be allowed that they could be said to be perceived at all) should receive the same analysis as the perception of real things.

So much for Mrs. Teichmann's criticisms. I hope I have shown that the causal theorist has an answer to all of them. So I may conclude this section by expressing the hope that I have shown that both sets of criticisms set out in Section 1 fail to achieve their ends. For I have shown that some of the cases of perception which were, it was suggested, incapable of causal analysis are in fact capable of it, e.g., the cases of the perception of sounds, smells, surfaces, and shadows, and have pointed out that the cases

of perception which are not capable of causal analysis along the lines I suggested e.g., the cases of the perception of colours, shapes, similarities, and differences, all differ in a significant way from cases of physical object perception. For in the one set of cases the objects of perception are universals, whilst in the other they are particulars.

SECTION 4. Two senses in which a physical object can be said to be perceived.

In Chapter 7 I proposed an account of what it is to perceive a physical object, at least in the central or focal cases of perception. But I also remarked that I would be led to distinguish from the sense I had accounted for a second sense of "perceive". (pp 200, 205). I postponed discussion of this topic until I reached the present point in my thesis because I think that such a discussion springs naturally from the topic which I have just been dealing with, the perception of sounds, smells and tastes. Now sounds are (usually at least) perceived by hearing, smells by smell, tastes by taste. But there are things other than sounds that are heard; things other than smells that are smelled; things other than tastes that are tasted. These are the physical objects that make sounds, give off smells, have tastes. But an interesting fact strikes one about the perception of these objects by hearing, smelling, and tasting. It is that one cannot perceive them in any of these ways without in each case perceiving a physical object of another type, and one the existence of which is logically independent of them. Take the case of hearing a motor-car at t. This cannot occur unless at t a sound is perceived, which is, of course, a physical object of a different type from that to which

the car belongs, and could conceivably exist even though the car did not, though in fact it is produced by the car. The same goes for one who smells the car at t, for he cannot do this unless he smells a smell at t. Further, one who tastes an apple at t must also taste a taste at t.

Why are these things so? The reason is surely that hearing a physical object other than a sound at t is a matter of hearing a sound at t that is produced by the physical object, smelling a physical object other than at a smell at t is a matter of smelling a smell at t that is produced by the physical object, and tasting a physical object other than a taste at t is a matter of tasting a taste produced by the physical object. Let us say that perceiving in the sense of "perceive" that I have analysed in the preceding chapters is perceiving$_1$. What I now suggest is that when, say, I hear a car, it is not necessary that I should perceive$_1$ the car, but rather that I should perceive$_1$ a sound that is produced by the car. Let us say that in such a case I perceive$_2$ the car.

What sort of account can we give of perceiving$_2$? We might begin by suggesting that A perceives$_2$ a physical object, X, at t iff A perceives$_1$ at t either a sound or a smell or a taste produced by X. But this account seems deficient insofar as it is lacking in generality. Surely there must be a feature common to sounds, smells, and tastes, such that, if A perceives$_1$ something which both has this feature and is produced by X, then A will perceive$_2$ X. Well, it seems clear that sounds, smells, and tastes could all be described as <u>emanations from</u> the physical objects that give them off. For under certain circumstances some physical objects give off, emit, such things as sounds, smells, tastes, light, and heat, and these things might well be called "emanations." Can we say therefore that A perceives$_2$ X at t iff A perceives$_1$ at t an emanation from X? The difficulty about this account is that we seem to be unwilling to say that a man sees a searchlight or a

torch if all that he sees is its beam. But the beam is clearly an emanation from the searchlight or the torch. Perhaps the difference between a sound and a beam of light is that the former is more informative about its source than the latter, and we should therefore say that A's perceiving$_2$ X at t is a matter of, A's perceiving$_1$ at t an emanation from X that is <u>significantly informative</u> about its source. We could indicate how informative an emanation had to be to be significantly informative by contrasting such cases as I have just mentioned, where in the one case a source is said to be perceived when its emanation is, whilst in the other, although the emanation is perceived, its source is not said to be. But I see no reason why, say, the radiant heat given off by a fire should be any less informative about its source, the fire, than the noise the sound makes is. But then, if the account under consideration were correct, just as we say that the fire is heard in virtue of the fact that the noise it makes is heard, we should have to say that the fire was felt in virtue of the fact that the heat it gives off is felt. But we do not wish to say this, so the present account must be wrong.

Thus, I have failed to put my finger on the significant feature that sounds, smells, and tastes have in common - if there is one, that is. A further difficulty about the sort of account I have been proposing of perceiving$_2$ is the following one. If, as I have suggested, sounds are perceptible by other senses than hearing, and may be seen and felt, then, on my account, one who sees, and thus perceives$_1$, a sound given off by X will for that reason perceive X. (The perceiving of X will be an instance of perceiving$_2$). But it is obvious that we would not want to admit this. What we are

ready to admit is that A perceives$_2$ X at t provided that A either perceives$_1$ at t, by means of hearing, a sound that X has produced, or perceives$_1$ at t, by means of smell, a smell that X has produced, or perceives$_1$ at t by means of taste, a taste that X has produced.

I leave these difficulties unsolved. I think it is plain, though, that there is such a thing as perceiving$_2$ a physical object, and that such phenomena as hearing a motor-car or smelling an oily rag are examples of it; and, further, that perceiving$_1$ is more basic than perceiving$_2$. For we can say this at least of perceiving$_2$, that an account of its nature must involve a reference to perceiving$_1$, as it is clearly a necessary condition of A's perceiving$_2$ X at t that A should perceive$_1$ at t an emanation from X. Thus, I hope that, though I have not succeeded in giving an account of perceiving$_2$, I have done enough to distinguish it clearly from perceiving$_1$.

SECTION 5. Conclusion of the thesis as a whole.

In this chapter I supported the account of the perception of a physical object that I advanced earlier in my thesis, by showing that it is highly plausible to suppose that the perception of certain sorts of physical objects to which philosophers of perception have given little attention, such as sounds, tastes, and smells, is a causal matter. I argued that the existence of certain objects of perception, the perception of which is not susceptible to such a causal analysis, is not fatal to my theory, as these objects are of a different ontological status from that of physical objects. Finally, I distinguished a sense of "perceive" in which physical objects can be said to be perceived, but different from the sense which I had previously analysed. I suggested that it was secondary to that sense, and so called perceiving in this sense "perceiving$_2$".

This concludes my treatment of the Causal Theory of Perception. I hope I may now claim to have carried out the programme which I set myself at the end of Chapter I (p 31 ff). There, on the basis of the enquiry I had engaged in earlier in the chapter, I distinguished several types of Causal Theories, and called the main types "A_1", "A_2", and "B". In Chapters 2 and 3 I gave my reasons for rejecting all Causal Theories of types A_2 and B. Chapter 4 contains the argument which leads me to think that some theory of type A_1 must be correct. The rest of my thesis has been devoted to the attempt to advance this correct theory. The kernel of my theory is to be found in Chapter 7, in the discussion culminating on p 196, where I suggest that a perceiver, A, perceives a physical object, X, at time, t, iff X plays a differential part in bringing it about that A has a seeming, s, of type Z, at t, and plays its part in a way that is productive of good representations of type Z in the general circumstances in which A has s and X plays its part in bringing this about.

Appendix: Russell on perception and our knowledge of the external world.

I now believe that my treatment of Russell's views on these topics in Chapters 2 and 3 is insufficient and in some ways misleading.

The account I gave on p 38 of Russell's view that our knowledge of the external world is inferential, which contains the assertion that Russell thought that all that we know about physical objects must be inferred from propositions we know about our mental phenomena, is very unsatisfactory. This does seem to be his view in "The Problems of Philosophy" (OPUS edition, p 21) and "Human Knowledge" p 245, p 247). But the doctrine advanced in "The Relation on Sense-data to Physics" ("Mysticism and Logic" p 111f) is that sense-data are physical objects. This was Russell's view up till the time he enbraced Neutral Monism. His position after that time is correctly described in my account. For his view was that we infer the existence and nature of physical objects from sensory particulars in our own biographies, and these are mental phenomena, according to Russell. (See "The Analysis of Mind", Lecture 7). Perhaps we could characterise Russell's view by saying that he believed all any of us knows about physical objects must be inferred from phenomena private to him. For even when he thought that a sense-datum was a physical object, he considered that it was private to the person who was acquainted with it ("Mysticism and Logic", p 117f).

With regard to my note on p51 , it is interesting to note what Russell wrote in "The Problems of Philosophy": "We must, therefore, admit as derivative knowledge whatever is the result of intuitive knowledge even if by mere association, provided there is a valid

logical connexion and the person in question could become aware of this connexion by reflection. There are in fact many ways, besides logical inference, by which we pass from one belief to another: the passage from the print to the meaning illustrates these ways. These ways may be called "psychological inference." (OPUS edition, p 78). It is a pity Russell did not continue in this vein in his later treatments of the topic.

Turning now to my references to this appendix in Chapter 3, on p 77 and p 93, what I have already said shows up the defects of my earlier account. When Russell believed in sense-data, he was for a long time convinced they were physical, not mental. And when he embraced Neutral Monism, he gave up his belief in sense-data. For he was no longer prepared to give an act/object analysis of sensation. (See "The Analysis of Mind", pp 141-2). However, I believe that my most important criticisms of sense-data, when these are understood to be mental phenomena, apply equally to Russell's physical sense-data, and to the particulars of neutral status which he later invoked.