THE ARGUMENT FROM ILLUSION

by

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Abstract

It has often been alleged that the argument from illusion demonstrates that perceptual judgements expressed in ordinary or material object language are inherently vulnerable to scepticism, are imprecise, ambiguous, inconvenient, and imply somewhat more than we legitimately ought to say. Perceptual judgements about the same experience expressed in sense data language are, on the other hand, allegedly shown to be indubitable, precise, unambiguous, and, as such, to be the raw data from which our empirical knowledge is inferred.

I contend there is no such essential asymmetry between an object language judgement (M-judgement) and a sense data language judgement (S-judgement) about the same perceptual experience provided the judgements are intended to have the same function.

Arguments from illusion are, I contend, arguments by analogy. They argue that since we may be subject to illusion, then perhaps we are presently subject to illusion. But arguments by analogy are less arguments than hypotheses. We can easily counter that since we may not be subject to illusion, perhaps we are not presently subject to illusion.
The problem is to discover whether or not we are subject to illusion and this, in principle we can do. M-j judgements, as contingent judgements, can only be held to be contingently doubtful; they may in principle be verified or falsified.

Further, if we attend closely to the conditions under which we make M-j judgements and to our pragmatic interests and purposes in making them, we discover that such dubitability to which they are prone derives essentially from the fact that they are intended to effect a maximum differentiation of our sensory experience.

S-j judgements on the other hand are shown to derive their indubitability proportionately to the extent that they minimize differentiation of our experience. Indubitability is achieved only by diminishing the risk of contingency entailed by classifying experience. A completely doubt-free S-judge ment then, would effect minimal differentiation of sensory experience and considering our pragmatic interests, would be singularly inutile. Thus it has been shown that such advantages as S-j judgements have over M-j judgements with respect to doubt derive only from a more radical asymmetry of intention, function, and utility.

Further asymmetries regarding precision, ambiguity and convenience are shown either to be similarly untenable or to favor M-language.

My conclusions are meant to undermine the tradition of basing sense data philosophy upon an inferiority of ordinary
(M-statement) language as allegedly shown by a problematic asymmetry of M-judgements with S-judgements. No such troublesome asymmetry exists. I do recognize that arguments from illusion elucidate the extent to which ordinary language reflects conditions that are purely contingent and that it may well be possible to establish independently a sense data language which is less tied to purely contingent empirical conditions.
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CHAPTER ONE

INTRODUCTION

A. J. Ayer concludes the opening chapter of his book *The Foundations of Empirical Knowledge* by saying, "I may sum up my long discussion of the argument from illusion by saying that it makes it seem desirable to use a technical terminology of some kind in philosophizing about perception; and that of those that are available the terminology of the 'sense datum theory' appears to be the best."¹

A great many philosophers have shared Ayer's fascination with the argument from illusion and they have felt that it supports programs for perceptual philosophy similar to Ayer's. I think *le mot juste* for their disposition may be found in a passage from Sterne's *Tristram Shandy*. "Away they go cluttering like hey-go mad; and by treading the same steps over and over again they presently make a road of it, as plain and smooth as a garden walk, which, when they are used to, the Devil himself sometimes shall not be able to drive them off it."

I shall attempt in this paper what the Devil himself sometimes shall not be able to do. I hope to show that Ayer and most sense data philosophers are mistaken, that the argument from illusion does not support his conclusion that ordinary terminology is less satisfactory for perceptual philosophy than
a technical terminology. Further, I hope to show that the argument from illusion does not demonstrate that the foundations of empirical knowledge are sense data. The foundational approach to philosophy may indeed be a valid one. But, simply, the argument from illusion has no place in it.

How does the argument from illusion support Ayer's conclusion? The answer ought to be explicitly given in his first chapter and we ought therefore to begin with a close examination of it.

The structure of Ayer's chapter on the argument from illusion is rather surprising. He begins with a section entitled 'Exposition of the Argument.' He notes that some philosophers have introduced sense data as the things we are directly aware of in perception. The answer to why it is necessary to introduce the term sense datum instead of saying we are directly aware of material things is, he says, provided by the argument from illusion. Now it is, I think, extremely interesting that Ayer does not expound his own argument but tells us how others have argued. His exposition is apparently neutral or impartial, (ie. 'It is argued', 'Philosophers have recourse to...', 'It is pointed out', etc.). Ostensibly his evaluation of the argument will distill its effective points and dispense with any objectional or invalid ones.

However, his next section, called 'Evaluation of the Argument From Illusion', is concerned mainly with whether the argument involves a question of language or a question of facts.
He concludes it is the former. This of course affects the original question. If the argument involves a question of language, then it cannot be necessary to introduce the term sense datum although it may be desirable for some purposes to use sense data language.

In considering 'The Introduction of Sense Data', his next section, Ayer expounds on the theme of two usages of perceptual verbs, such that in one sense 'perceive' implies that the object perceived exists and in another it does not. He feels there is some ambiguity in the way we use perceptual verbs. The sense datum advocates he notes have decided to obviate ambiguity by deciding upon one use for perceptual verbs. They shall, by convention, refer to sense data.

Ayer then asks; "Is this all that the argument from illusion yields us; a motive for adopting a new terminology?" In the section headed 'Misuses of the Argument from Illusion' he rigorously examines various uses of the argument, for example that it supports such conclusions as "that the world of sensible phenomena is self-contradictory; that our ideas of secondary qualities are not resemblances of any real qualities of material things; which means inter alia, that no material thing is literally colored, or literally characterized by any sensible temperature or weight; that the primary qualities of solidity, extension, number, figure and motion are also "not real"; that the testimony of the senses is not to be relied on, and that if we have any acquaintance with
material things as they really are, it is not through any act of sense perception but only through some "intuition of the mind." He claims that all such uses of the argument from illusion are invalid.

In the final section, 'Theories of Perception As Alternative Languages' Ayer makes it clear that he does not think naive realism can be refuted by the argument from illusion for the reason that it is not properly a theory and not properly refutable. It is rather "a proposal to use words in a certain fashion." What are often called 'theories of perception' Ayer calls alternative languages. They are different ways of describing the same phenomena. Empirical evidence does not favour one of the theories over another. He accepts or rejects the alternative theories or languages according as they are suitable for purposes.

Now keeping in mind his conclusion that the "argument from illusion...makes it seem desirable to use a technical terminology of some kind" we must ask some very pointed questions. First, if the matter of which terminology to use in philosophizing about perception is not a factual matter but a linguistic one, in what sense has he shown us the 'foundations of empirical knowledge'? As he says there is no question of the alternative languages being wrong. Presumably each will have its own foundations. What we take as the foundations of empirical knowledge will depend on which language we use.
Ayer says he regards the alternative language of sense data as being more 'suitable for his purposes.' But he hasn't in this first chapter clearly stated what his purposes are. The title of his book hints that he is going after something ontological, the foundations, after all, of knowledge about the world.

What are his purposes such that sense data terminology are more suitable for them? What can sense data terminology do that, say, the languages of naive realism or of the Theory of Appearing cannot do? What exactly is it about the argument from illusion that makes it desirable to use sense data terminology? We would expect Ayer to state clearly what his purposes are, to give his own exposition of the argument from illusion, and to show explicitly how it demonstrates that the language we ordinarily use (the language used to state the argument from illusion) cannot serve his purposes.

Instead Ayer does not state clearly what his purposes are. He does not give his own exposition of his own argument from illusion; he stands back as it were and states the argument in such non-committal terms as 'it is stated', or 'it is pointed out', or 'we are invited to give' certain answers to questions. Ayer does not seem himself to be arguing from illusion. He does not explicitly say, 'I argue and I conclude thus.' It is difficult in his chapter on the argument from illusion to ascertain exactly what Ayer's purposes are and why only sense data terminology can satisfy them. The closest he comes to an
explicit statement is this that sense datum terminology is designed "to eliminate the problems which arise out of the ambiguous use of words like 'touch' and 'see' in ordinary speech." He claims it can do this more conveniently than any rival. He also says it has the advantage, "of enabling us to refer to the contents of our sense-experiences, without referring to material things." He does not tell us why this is an advantage. The answer presumably lies somewhere in the argument from illusion.

We might essay the following paraphrase: the argument from illusion illustrates that ordinary speech about perception is ambiguous and that problems of perceptual philosophy arise out this ambiguity. The technical terminology of sense data is not ambiguous and hence obviates the problems. We might tentatively add that sense data terminology is more basic than ordinary speech and therefore illustrative of the foundations of empirical knowledge.

Ayer's failure to give his own argument from illusion is, I think, the source of some confusion. It isn't clear how Ayer thinks the argument explicitly supports his conclusions. When Austin, in Sense and Sensibilia, criticizes Ayer's sense data program, he does so by examining the arguments from illusion found in Ayer's first section. But these are not Ayer's arguments. In fact it is not clear how Ayer would state his own argument from illusion.
I hope to obviate these difficulties by examining two specific examples of the argument from illusion given at first hand by their proponents. I shall attempt to discover where the alleged ambiguities and problems supposedly necessarily arise in ordinary perceptual judgement and how the introduction of sense data terminology is supposed to solve them. It is foolish to say 'It is argued' or 'It is held' or 'Philosophers have recourse to...' when we can let the philosophers argue for themselves. I have chosen two arguments, one by H. H. Price and one by Bertrand Russell. Both are of significance to sense data philosophy. Ayer acknowledges Price's work, Perception. Russell's argument occasioned the first appearance in print of the term 'sense datum.' Obviously Ayer must have had just such philosophers as these in mind when he wrote of the argument from illusion. Between the two arguments all the essential moves are made; they cover everything Ayer covers in his exposition. They do so clearly and explicitly and there is no doubt as to what purpose is being served by various parts of the arguments. They have the advantage over Ayer's exposition in that they make an argument, they do not refer to one or report on one. We can easily see where and how conclusions are drawn and can determine their validity.

I hope to show that the argument from illusion does not demonstrate any inherent ambiguity about ordinary speech nor that it is at any disadvantage in referring to material objects. If sense data terminology is in fact desirable for
some purposes, this is not shown by the arguments from illusion.

Put another way, what I hope to do in this paper is undermine the whole tradition of basing sense datum philosophy upon an alleged inferiority of ordinary speech as shown by an argument itself expressed in ordinary speech. I cannot find that such arguments are coherent. If ordinary speech is insufficient for some purposes, then this must be shown independently; the argument from illusion makes out that it is insufficient for its own purposes and the argument fails. We may attempt to analyze ordinary words in terms of sense experience but this procedure is independent of the argument from illusion. We may argue that ordinary speech is tied to the conditions of perception that now obtain and that sense data terminology is by nature not tied to conditions. But this too is independent of the argument from illusion.
FOOTNOTES - CHAPTER ONE

I. Introduction

Doubt and indubitability play central roles in the argument from illusion. The sense datist claims that the argument supports the conclusion that judgements about perception are inherently doubtful. Concomitantly he claims that the argument demonstrates that since we do experience something when we perceive and since it is only the judgemental aspect of perception that is doubtful, then simple descriptions of our sense experience will yield us an indubitable account of perception. Since, he continues, as philosophers, we have an interest in the foundations of empirical knowledge, we ought, as philosophers, to concern ourselves solely with the indubitable aspect of perception. Since what is indubitable is simply the content of our sensory experience, or sense data, and not any judgement about them, the sense datist concludes that the foundations of empirical knowledge are sense data. Sense datists have differed on what conclusions to draw concerning the notion of substance or of the existence of things other than ourself and our experience. Some have claimed that such notions ought to be dispensed with in philosophy as being either nonsensical or unverifiable. Others
have held simply that judgements embodying such notions are inherently doubtful and that language expressing such judgements is therefore unsuitable for philosophic purposes.

The first question to ask is how the argument from illusion supports the conclusion that judgements about perception, for example the ordinary perceptual claims we make about objects, are inherently doubtful. How for example does the argument from illusion show that such claims as, 'I see a tomato' or, 'I see Smith's car coming' are de natura dubitable statements and hence unsuitable for philosophizing about perception?

Before answering this question we ought first to examine the nature of doubt. May we make any distinctions between sorts of doubt? A very common sort of doubt occurs when some fact is in dispute. For example there is the sort of doubt that I have when I am confident of what a doubt-free case of perceiving x is but where I am not sure in the case in hand if it is an x that I am perceiving. Perhaps, if I check I will find evidence that what I took to be an x is actually something else, a copy, something that looks like an x. This sort of doubt we may call factual doubt; it concerns disputed facts which we may verify.

In contrast to cases where particular facts are in question with regard to particular objects is the occasion where it is suggested that formally speaking all the facts are open to question with regard to all objects. Sense datists
have noted that because of their formal structure or because of their place within the logical structure of language, statements we make about our perceptions of objects do not entail that the objects are as we describe them. That is, such statements are by nature synthetic and no contradiction is involved in their denial. They are always subject to empirical verification, experience may always prove them to be false, or incorrect, or in need of amendment. This amounts to saying that for purely formal reasons there is always the possibility of factual doubt arising with reference to any perceptual claims I might make about objects. We may therefore talk of formal doubt as being distinguished from factual doubt. We may note that formal doubt isn't restricted to what I say about perceiving objects. The sense datist also claims that it happens to be the case that purely formally when I think I am perceiving an object I may be mistaken. Only future events will tell. There is nothing about the fact that I think I am perceiving an object that entails that there is an object present or that I am truly perceiving the object. Thus although I may think I am perceiving an object and would assert that I am perceiving the object, the sense datist claims that future experience may show that one of the following states of affairs may have been the case. I may have perceived the object or I may have perceived a copy or an imitation. I may have perceived something that looked like the object and made an incorrect judgement. I may have
hallucinated the object or I may have imagined it. What I thought was an object may have been a reflection.

Although I am perceiving a certain object, one of the other possibilities may obtain. Thinking, in this case, does not make it so. The truth of perceptual claims must be established by verification. Thus, says the sense datist, perceiving objects is a corrigible enterprise and statements about our perception of objects are *ex hypothesi* corrigible statements. He further suggests that the corrigibility of our ordinary perceptual claims either damages our common sense theories of perception or that it renders ordinary speech unsuitable for philosophizing about perception. He therefore introduces what he claims are indubitable elements of perception, sense data. When these are expressed propositionally the resulting perceptual claims will require no further verification operation. They will therefore, he argues, comprise a body of incorrigible statements about perception and as such will be most suitable for philosophizing about perception.

I shall argue that the argument from illusion does not show that our ordinary speech is inherently corrigible, that neither factual nor formal doubt is destructive of the suitability of ordinary speech for perceptual philosophy. What is difficult to show, however, is that what force the sense datist's argument seems to have derives from its shifting back and forth, seeming now to be claiming factual doubt,
now formal doubt. It is as hard in philosophy as elsewhere to hit a moving target.

Let us now examine some arguments from illusion in detail and analyze the role that doubt, factual and formal, plays in them.
II. **Factual Doubt**

H. H. Price founds his theory of sense data on an argument which will serve as a prime example of the argument from illusion. His exposition of the argument begins with the claim that there is much we can doubt when we see even such ordinary objects as tomatoes. We may, he claims, be mistaken; there are, he suggests, several alternative states of affairs which may actually obtain. Now since each of these states of affairs is itself a matter of fact and since the argument that when we think one state of affairs to obtain another state of affairs may actually obtain, is a factual one, I shall begin my analysis of his argument by considering factual doubt. Later I shall enquire whether the force of his argument isn't meant to derive from a more general thesis of formal doubt. Finally I shall ask whether such force as the argument seems to have does not, in fact, derive from its being slippery enough to seem now factual, now formal.

Following immediately upon our consideration of the role of factual doubt in Price's argument I shall examine its role in a similar but more carefully constructed argument of Bertrand Russell.

Here is what Price says,

> When I see a tomato there is much I can doubt. I can doubt whether it is a tomato that I am seeing and not a cleverly painted piece of wax. I can doubt whether there is any material thing there at all. Perhaps what I took for a tomato was really
a reflection; perhaps I am even the victim of some hallucination.¹

Before I begin to examine this claim I would like to make some general comments on the relation of perceptual judgement to language. The central issue of this paper concerns the sorts of perceptual judgements we make and the linguistic expression we give them. Specifically at issue is the relative utility and epistemological status of object judgements and their expression in ordinary or object language (M-statements), and sense data judgements and their expression in sense data language (S-statments). Judgements may be construed in the form of declarative sentences. Thus I think it is clear that when Price says, 'When I see a tomato', he is referring to occasions when he judges that he sees a tomato. His judgement may be construed as the sentence, 'I see a tomato.' In short saying, 'I see a tomato', is simply giving propositional expression in ordinary language to one's judgement. As Price later indicates, saying something like, 'I intuitively apprehend a patch of color of a round and bulgy shape, etc.' is simply giving propositional expression in sense data language to one's perceptual judgement. At any rate, in considering Price's arguments I shall sometimes refer to the judgements that we make and sometimes to their sentential construals. I do not believe any confusion can arise from this procedure.
To turn now to Price's argument, I think it is clear that when he says, 'When I see a tomato there is much I can doubt', he means that on occasions when he judges that he sees a tomato there is much he can doubt. And this can be construed as 'On occasions when my judgement may be expressed by the statement, 'I see a tomato', there is much I can doubt.'

Construing Price's argument in this manner brings out a basic inconsistency in it. When I judge something to be the case I don't at the same time doubt it to be the case. Judgements may be mistaken surely but we don't wittingly make mistaken judgements. If I make the judgement that I see a tomato I don't doubt my judgement because if conditions were such as to induce doubt then I wouldn't have made precisely that judgement in the first place. If there was anything about which I was doubtful then I would have made the lesser or hedged judgement that I think I see a tomato or that what I see looks like a tomato or that I seem to see a tomato, etc. When I either judge or assert that I see a tomato, there is a clear implication that I do not doubt that I do. A phrase embodying doubt about a judgement is appendable to some but not all of our perceptual assertions. I may say, 'I seem to see a tomato but I doubt that I do.' But I cannot say, 'I see a tomato but I doubt that I do.' The use of the word 'see' implies the preceding condition that we are satisfied that conditions do not warrant doubt.
Ryle has suggested that 'see' is an 'achievement' verb. The 'achievement' sense of 'see' would imply some knowledge of what the conditions of achievement are. I argue that the use of the word 'see' in the sentence, 'I see a tomato' implies a knowledge of what a doubt-free instance of seeing a tomato is. It implies that we are familiar with tomatoes at least to the point of being able to recognize one, and that we are familiar with the conditions for recognizing tomatoes. It implies a confidence that present conditions satisfy the requirements for judging that we have 'achieved' seeing a tomato.

I do not suggest for a moment that we cannot be mistaken, simply that when we judge that we see a tomato we do not think we are mistaken. There is a world of difference between suggesting (1) that when I judge that I see a tomato there is much that I can doubt and (2) that when I judge that I see a tomato I may be mistaken. The former implies that we can think we are mistaken, the latter implies that we may be mistaken but that we do not think we are.

From this analysis it would seem that Price's argument might better be expressed in either of the following forms: 'When I think I see a tomato there is much I can doubt', or 'When I judge that I see a tomato I may be mistaken.' In the former the fact that he uses the phrase 'think I see' implies that he is not sufficiently certain to say 'I do see' and thus that there is something about the case which is, however slightly,
doubtful. I think it is clear that Price's intent is realized by the latter expression.

'When I judge that I see a tomato I may be mistaken,' Of course doubt would still play a central role in Price's argument in the sense that a judgement that may be mistaken is a judgement that may be doubted. Price suggests several ways in which our judgement may in fact be mistaken. What we see may be a wax replica of a tomato or a reflection of a tomato, or a hallucinated tomato. That is to say he suggests that what is doubtful is whether I see a real tomato, or something which looks like a tomato, or is an artificial tomato, or in short, is not a real tomato but is in some common way like a tomato.

I think it is necessary to stop at this point to examine a basic presupposition involved in the making of judgements both correct and mistaken. Judging is essentially a matching procedure. We judge that the case at hand is like a standard case and ought to be called by the same name. When we first meet an object, when it is ostensively defined for us we do not judge that it matches the definition. We learn that the object is called by a certain name. When we are children we learn that a certain object is called a tomato. We judge that another object is also a tomato and our judgement may be correct or incorrect. But correct or incorrect, inherent in the notion of judging that a is b is some knowledge of what b is; b is a standard and basic to judging that something
is b is knowledge of what the standard is. When we learn the names of objects by ostention we learn their names simpliciter; we don't learn that we think they are called by that name. Can you imagine someone ostensively defining objects by saying, 'I think this is x', or, 'This may be y'? The objects are named x and y. We subsequently judge that other objects are also x's and y's.

Judging that a is b entails knowing what b is. Doubting that a is b entails knowing what a doubt-free instance of b is. Judging that a is b entails that we can verify that a is b, that we can see that a matches b with respect to the essential, or defining, characteristics. We cannot doubt what we cannot verify. If I am to doubt that a is b then I must know how to test for b. I must know what it is to be b and thus what it is not to be b.

To judge that I see a tomato is to judge that what I see matches what I know to be the standard case of being a tomato. To doubt that what I see is a tomato is to doubt that it matches the standard case. Price suggests that there is a range of possible cases. What I see may be a tomato, it may be a wax tomato, it may be a hallucination. He suggests that I may always be mistaken if I judge that it is a tomato. But I believe I have shown that the logic of the word 'judge' entails a verification process. I can verify my judgement and ascertain whether I am in fact correct or mistaken.
Let us now, in the same vein, consider the alternatives Price suggests. What I see may be a wax tomato. That is true; it may be. But I can test whether it is a wax tomato. I can satisfy myself that it is not. What I see may be made of plastic, or glass, or steel, or even coal. It may be a reflection, or a holograph, or a picture, or a projected slide. It may be a hallucination, or a dream, or a mirage. I argue simply that to know what these things are is to know how to test for them.

For every factual doubt there must be a factual test.

On the matter of factual doubt I conclude then, (1) that factual doubt makes sense only against a case of factual certainty, and (2) that the doubt can be dispelled by relevant tests.

Now let us see how these conclusions count against Price's argument. I have said that the central issue of this paper concerns the sorts of judgements we make and the sentential construals we give them. Specifically at issue is the relative utility and epistemological status of ordinary or object language judgements (which will be expressed as M-statements) and sense data language judgements (S-statements). The argument from illusion - which Price is making - attempts to show that the two languages are of two radically different sorts; that material object language statements are inherently doubtful, necessarily vulnerable to sceptical doubt, and are in short corrigible, and that sense data statements are
indubitable, not vulnerable to scepticism, and are incorrigible.

Has Price shown that the M-statement, 'I see a tomato' construed as an expression of the object judgement that I see a tomato, is in principle doubtful and corrigible? Let us see.

I believe that it is not paradoxical that a class of statements may as a result of their form be considered corrigible but that individual statements within that class may be established as in fact incorrigible. We shall consider this matter further in the chapter on formal doubt. Here I wish to argue that if my conclusions (1) and (2) above are conceded, as I think Price would concede them, then it follows that we can establish that particular M-statements are in fact true. M-statement language then is only contingently doubtful or corrigible. Concommitantly it is contingently doubt-free and incorrigible. If (1) and (2) are conceded then the M-statement, 'I see a tomato' may be verified. If it is verified then its verification ex hypothesi established its incorrigibility. It cannot, after all, be subject to correction if it has been verified.

The upshot of this is that compared with respect to doubt M-statements and S-statements are not of two distinct types one corrigible and the other incorrigible, but rather that the incorrigibility of M-statements must be established by verification while that of S-statements allegedly does not require verification. (We shall examine in my chapter,
Some Doubts About Indubitability, whether it is true that S-statements do not require verification.) I contend that Price's argument has shown that M-statement language can only be argued to be less convenient (because it is contingent and must be verified) than S-statement language which need not be verified. I believe that this has broken the back of the argument from illusion. With respect to doubt there is no essential asymmetry between M-statements and S-statements. It remains to be seen whether there is any such asymmetry with respect to convenience and ambiguity. We shall consider these matters in the retrospective section on doubt, Some Doubts About Doubting.

Concluding the section on factual doubt as it pertains to Price let me say that I think he has been misled, as have many philosophers, by presenting his example of what may be doubted about perceptual judgement in vacuo. Judging that we see a tomato and not a replica or a reflection or a hallucination is not anything like as doubtful as Price suggests. He suggests contrary to what we intuitively believe, that for any perceptual judgement of an object several alternative states of affairs are always on an equal footing. Normally however we believe that conditions prevailing indicate that some of the alternate states of affairs do not obtain. It may however be objected that the only relevance of prevailing conditions is that they provide further occasions for doubt. This leads to the more thorough-going sceptical thesis not just that particular facts are doubtful about perception but that all the facts about any
case are equally doubtful. We shall examine just how forceful this argument is in the next chapter, Formal Doubt.

If Price's argument from doubt is rather hasty, let us examine a longer and more careful account of what is allegedly dubitable and indubitable about perceiving such things as tables. Bertrand Russell makes the following argument from illusion in his book Problems of Philosophy.

In the first chapter Russell proposes a distinction between appearance and reality. Ultimately he argues that what we commonly take as real is in fact highly doubtful, far too doubtful to serve as the foundation of empirical knowledge. What will fulfill that exalted function, he argues, are appearances or sense data, the indubitable elements of perception. Let us follow his argument as he tries to convince us of the illusory nature of our ordinary beliefs about tables.

Russell introduces the distinction between appearance and reality by examining how we describe tables. We might, he says, describe a table as oblong, brown and shiny, smooth and cool and hard, and such as to emit a wooden sound when tapped. "Anyone else who sees and feels and hears the table will agree with this description, so that it might seem as if no difficulty would arise; but as soon as we try to be more precise our troubles begin."^2
The following is a paraphrase of Russell's argument as it affects our notions of the color, texture, shape, and feel of the table. First he suggests that although we believe the table is 'really' the same color all over, in fact we do not see the same color. We see some parts brighter than others, some parts which look bright and shiny due to reflected light. Some parts look dark and shadowed. These parts change position as I change position. "It follows that if several people are looking at the table at the same moment, no two of them will see exactly the same distribution of colours, because no two can see it from exactly the same point of view, and any change in the point of view makes some change in the way the light is reflected."^3

He goes on to suggest that some people, artists for example, have a special concern with how things appear rather than how we think they are. (An example that Russell might have used is that artists often must learn that shadows are not black but colored.) And this is the genesis of the appearance/reality distinction. After mentioning that artificial light, color blindness, tinted spectacles etc. will result in changes in the way we perceive the color of the table, Russell makes the following claims,

This color is not something inherent in the table, but something depending upon the table and the spectator and the way the light falls on the table. When in ordinary life, we speak of the colour of the table, we only mean the sort of
colour which it will seem to have to a normal spectator from an ordinary point of view under usual conditions of light. But the other colours which appear under other conditions have just as good a right to be considered real; and therefore to avoid favoritism, we are compelled to deny that, in itself, the table has any one particular colour.

Russell applies the same sort of critique to the texture of the table, noting that what looks smooth and even to the naked eye may look rough and uneven through a magnifying glass. "Which of these is the 'real' table?", he asks, and further concludes, "Thus again, the confidence in our senses with which we began deserts us."

Then he considers the shape of the table.

We are all in the habit of judging as to the 'real' shapes of things, and we do this so unreflectingly that we come to think we actually see the real shapes. But, in fact, as we all have to learn if we try to draw, a given thing looks different in shape from every point of view. If our table is 'really' rectangular, it will look from almost all points of view, as if it had two acute angles and two obtuse angles. If opposite sides are parallel they will look as if they converged to a point away from the spectator,...All these things are not noticed in looking at a table because experience has taught us to construct the 'real' shape from the apparent shape,...But the real shape is not what we see; it is something inferred from what we see. And what we see is constantly changing in shape as we move about the room.

Next he considers the sense of touch, noting that though the table always feels hard, "the sensation we obtain depends upon how hard we press the table and also upon what part of the body we press with."
The conclusion that Russell, like Price, would have us draw from all this is that there are many things we can doubt when we see such objects as tomatoes and tables. Though we might begin with some confidence in our senses, it will soon desert us. We never perceive 'real' objects nor their qualities but only infer them.

It is difficult to know where to begin to criticize an argument such as this. I think there is something very wrong with it but it is by no means easy to say what. Russell's claim is clear enough; we do not perceive the real qualities of objects but construct or infer them from apparent qualities. What isn't clear to me is whether, and if so how, this is established as a valid conclusion from his examples or whether it is something essentially presupposed by Russell. In order to get to the bottom of this it might be useful to ask what would count as seeing the real shape of an object. Is there in fact anything that would count as perceiving the 'real' qualities of an object or is this debarred by Russell's notion of what is meant by 'real'? These are difficult questions. Certainly Russell's point seems to come as a conclusion following from a line of reasoning. He has given us examples of perceiving an object differently from different points of view and under different conditions. These relative perceptual judgements are what seem to support the conclusion that we do not perceive but infer the real qualities.
Let us, however, attempt to falsify the conclusion to ascertain whether there are, on Russell's view, any conditions that would allow us to say that we perceive the real qualities of an object. Suppose there was an object whose texture looked the same under a microscope as it did to the naked eye. We would then on Russell's account have no reason to distrust our senses and we would not in this case ask Russell's question, 'which is the 'real' table?' Or consider the case of a sphere. It looks the same from every point of view. There is nothing in the case of spheres to make us conclude that we do not see their 'real' shape. If it is the relative differences in our various perceptions of objects under different conditions that ought to convince us to conclude that we do not perceive their 'real' qualities, then for examples where we do not experience different perceptions of the same objects under different conditions we should be able to conclude that we do perceive their real qualities. This would put us in the strange position of being able to see the 'real' shapes of some objects, spheres, but not of others, tables. I think this is contrary to Russell's intention. I believe Russell's claim that we logically construct the 'real' qualities of objects derives more from his notion of what 'real' means than from an argument from examples.

However, let us, before we turn to an examination of the word 'real', consider more closely Russell's argument concerning seeing the shape of a table. Remember that he says
that we learn, if we try to draw, that "a given thing looks
different in shape from every different point of view." Now
the expression 'looks different in shape' is ambiguous. We
don't claim that objects look as though they are different
in shape seen from different positions. What is true is that
if we draw an object (excepting spheres) from different points
of view our drawings will not be congruent. Russell's case
would be easily made if we restricted ourselves to talking
about two-dimensional representations of the content of our
visual experience. This point can be seen when we consider
his claim that, "If our table is 'really' rectangular, it
will look from almost all points of view, as if it had two
acute angles and two obtuse angles." It is certainly true
that two-dimensional representation of the table from most
points of view will have two acute and two obtuse angles.
But when we look at the table we might simply deny that it
looks as though it had two acute and two obtuse angles.
Similarly with the claim, "If opposite sides are parallel,
they will look as if they converged to a point away from the
spectator." We might well deny that opposite sides of a table
look as though they really will converge. But considered two-
dimensionally, lines extended from the sides of the table
would converge. Finally let me consider Russell's claim
"what we see is constantly changing in shape as we move about
the room." If what we see is the table then we would certainly
emphatically deny that the table is changing shape. What would
be changing shape are representations, as for example drawings, of the table.

What these points show I think is that Russell's argument relies on a certain ambiguous reference of such expressions as, 'it looks as if it had' and 'what we see.' I shall be considering ambiguity in a later chapter. Let me here point out that the ambiguity may be quickly cleared up. We would quickly deny that the table had acute and obtuse angles or that it changed shape. Clearing up the ambiguous references would seriously affect Russell's argument. Russell seems predisposed toward the view that what we see are sense data. But if we clear up any ambiguous reference then the judgement that what we see is an object is by no means discredited. There do seem to be alternate ways of describing our perceptual experience, one such that the objects of perception are objects constant in shape, etc., and the other such that the objects of perception are sense data and are constantly changing. Russell shows a predilection for the latter alternative but he has not destroyed the effectiveness of the former either as theory or language. But we are getting ahead of ourselves.

Let us examine the word 'real', the core of Russell's argument. It is always a fair question where the word 'real' is used to ask what 'real' is being contrasted to. What is 'not real' to refer to? Now in Russell's argument the clue is given I think in his title for the chapter, Appearance and
Reality. 'Real' objects or qualities are not apparent objects or qualities.

Here we have already the beginning of one of the distinctions that cause most trouble in philosophy - the distinction between 'appearance' and 'reality', between what things seem to be and what they are. The painter wants to know what things seem to be, the practical man and the philosopher want to know what they are; but the philosopher's wish to know this is stronger than the practical man's and is more troubled by knowledge as to the difficulties of answering the question.

But somehow it appears that the philosopher's question differs from that of the practical man not only by reason of its more intense motivation. Russell acts as though it is a different sort of question. The practical man wants to know the shape or color, etc. of the table and he is prepared to accept (or to demand or to give) answers of varying degrees of completeness. The philosopher, at least in Russell's account, wants to know the 'real' shape of the table and seems to think that if the table has a real shape there will be only one possible complete answer to his question. The practical man can never satisfactorily answer the philosopher's question because of the philosopher's stricture concerning the use of the word 'real'.

Russell uses the word 'real' in his argument in a wholly artificial and misleading way. Let us examine 'real' in some of its relevant uses. We may talk of,

A real table
A real tomato
A real improvement.
The point is that in each of these cases the use of 'real' excludes from consideration common ways of being not real, common ways of deviating from a standard case. To talk of a real table is not to suggest that there is only one way of being a table. But what it does do is to exclude all sorts of common ways of being not a real table. It excludes from consideration toy tables, photographs of tables, makeshift tables, and in short a whole range of things we might under some conditions mistake for tables. The ways in which things may be like an x but not be an x are protean. However the notion of a real x is just as protean. When I talk of a real table I let you know that I am not referring to a makeshift table or a hallucinated table or a photograph of a table. But I don't tell you anything about the table that I have in mind. My table may be a dining-room table or a kitchen table or a card table (all of which are, of course, real tables). Calling it a 'real' table says nothing about what sort of a table it is. Just as 'real' excludes a whole range of ways of being not-a-real table, it applies to a whole range of ways of being a real table. If I speak of a real tomato I don't give you any definite description of the tomato but I do let you know that I am excluding wax tomatoes, or reflections of tomatoes, etc. If I talk of a real improvement, I haven't told you exactly what the improvement involves. But at least I have let you know that the improvement isn't illusory or it isn't just an alleged improvement.
As Austin has said, "the function of 'real' is not to contribute positively to the characterization of anything but to exclude possible ways of being not real." Russell surely thinks the function of 'real' does positively contribute to the characterization of the table and of its qualities. He apparently thinks that if the table is to have a 'real' shape or color then the real shape must admit of only one (complete) description regardless of the point of view from which it is perceived. This might be expressed by saying that he thinks the notion of a real $x$ is logically monolithic. If however Austin's analysis is correct that 'real' is an 'adjuster' word, a flexibility device, "by the use of which other words are adjusted to meet the innumerable and unforeseeable demands of the world upon language" then 'real' is not monolithic but protean. Austin has illuminated its role in the linguistic mechanism by which we take some cases as standard and others as being adjusted, or compared, to the standard.

As we have seen, what we take as standard may be protean; there may be many ways of being a real table. Russell's account of 'real' seems to be that as used in ordinary language it is closely linked to a questionable and metaphysical notion of substance. If it is not too paradoxical we might say that Russell thinks that in ordinary language 'real' has an 'ideal' sense that it ought not legitimately to have. Austin has shown that it does not in fact have this 'ideal' or metaphysical implication.
There remains one matter to be cleared up with regard to 'real.' You will have noticed that all my examples have been concerned with substantives whereas what Russell is questioning is the 'real' nature of qualities we predicate of objects. Does 'real' work any differently regarding the shape of the table than regarding, say, the fact that it is a table (and not a toy, etc.)? Austin directs himself to the question of 'real' color and notes that one might say that the 'real' color of a thing is the color it looks to a normal observer under normal or standard conditions. He immediately counters this suggestion however with a series of examples in which we are not sure what normal conditions would be.\textsuperscript{12} He concludes that, "It is pretty obvious that there is no answer to these questions [i.e. as to real shape, real color] - no rules according to which, no procedure by which, answers are to be determined."\textsuperscript{13}

It would seem then that we can either answer the question, 'What is the real color of the table?' with reference to standard conditions, or, if what is to constitute standard conditions is disputed, we can protest that there is no answer to the question. Divorced from standard conditions the question is unanswerable.

We can agree with Austin that "we make a distinction between a 'real' x and 'not a real x' only if there is a way of telling the difference between what is a real x and what is not."\textsuperscript{14}
Russell's distinction between the 'real' shape, (color, etc.) of the table and the apparent (ie. not real) shape (color, etc.) is just such a distinction because he denies that standard conditions are relevant. To conclude our discussion of 'real' I contend that Russell has not driven us to admitting, nor can he, that we do not see but construct the real qualities of objects. There seems to be a perfectly good use for the expression, 'The table is really blue (round, etc.).' Russell has not shown that perceptual judgements about the table expressed as M-statements are inescapably doubtful. Perhaps what has been shown by our examination of Russell's argument is that ordinary language has its own logic, its own rules and presuppositions. If we approach it with other presuppositions, for instance that the use of 'real' contributes positively (and metaphysically) to the characterization of anything or that what we perceive are not objects but appearances, then we might prima facie make a coherent argument. But closely examined the argument will not hold as the analysis of the function of 'real' in ordinary language shows.

Let us now turn to the question of confidence in our senses, the confidence Russell says we begin with but which soon deserts us. While the table looks smooth and even to the naked eye it may look rough and uneven through a magnifying glass. According to Russell this is sufficient to put our confidence in our senses to rout.
Again the argument revolves around the question of the 'real' table or the 'real' texture (shape, color, etc.). For otherwise how could looking at a table with the naked eye and then with a microscope destroy our confidence in our senses? We would expect the texture to look different seen through a magnifying glass.

What does he mean by "confidence in our senses." It would seem, from the tenor of his discussion, to be the naive assumption that any single perception of an object ought to be definitive. Or perhaps we might put it that any description of an object must be definitive; if it conflicts with (or just differs from) another description of the same object then this counts against the 'reality' of the object. But this assumption is surely eclectic if not to say eccentric on Russell's part.

On the contrary most of us assume that objects ought to look different when seen under different conditions and from different points of view and that the descriptions we might make of the object seen under these conditions or from different points of view ought to differ from one another. What would destroy our confidence in our senses is if the object looked the same under all conditions. Thus my 'confidence in my senses' is not shaken because the table that looks smooth to the naked eye looks rough under a magnifying glass. It would be shaken if I noticed no difference in the table as seen under the different conditions. Similarly my confidence
in what I take to be the 'real' shape of the table would be shaken if the table looked the same from all points of view. The conditions which convince Russell that we do not see the 'real' shape are just the conditions that convince us that we do. What would satisfy Russell that it has a 'real' shape which we see is never made explicit by him but it appears to be that there be no discrepancy between descriptions of objects as seen under different conditions or under different points of view; this is a patent absurdity.

Let us look again at how Russell begins his argument. He says, remember, that we might describe a table as oblong, brown and shiny, smooth and cool and hard, and such as to emit a wooden sound when tapped. "Anyone else who sees and feels and hears the table will agree with this description, so that it might seem as if no difficulty would arise; but as soon as we try to be more precise our troubles begin."

The paramount question then is whether we can be precise in describing the table without running into 'troubles.' But of course we can. And the reason we can be precise is that we conventionally signal that our description is made under special conditions, eg. seen under a magnifying glass. We can be as precise as we wish, and as precise as is necessary, in our description of tables. We do not, as Russell does, assume that any single description of a table must be definitive. Being precise is not being any one thing or acting in any one way. At the same time notice that there are no criteria
in general for being precise. How we are to be precise depends upon the particular case and upon our purposes with respect to it.

As with his use of the word 'real', Russell uses the word 'precise' without telling us the difference between being precise and being not precise is. And the argument will not work for 'precise' anymore than for 'real.' Just as we cannot doubt the 'real' shape of objects where it is not clear what the standards for judging real from not real are, so we cannot have 'troubles' being 'precise' where it is not clear what the standards are for judging what is precise from what is not precise.

The point is that the questions Russell raises, "What is the real shape (color, etc.) of the table?", "How can we give a precise description of the table?", are harmless. Whatever factual doubts we have of the table or of anyone's description of it may, in principle, be dispelled by relevant investigation.

A further objection to the claim that there are always factual doubts we may entertain of any particular object (as opposed to formal doubt, the discussion of which follows) is this that each example Russell introduces seems to presuppose a causal explanation. However, although he uses a causal explanation in the construction of the example, somehow the argument is supposed to result in a denial of part of the causal story. For example in the section quoted above he says,
"this colour is not something inherent in the table, but something depending upon the table and the spectator and the way the light falls on the table." But the end result of his line of arguing is to deny that the table and the light and the way it falls on the table exist in the way in which all three can be causally connected. He wishes to collapse the tripartite causal story in favor of just the spectator. But the causal story by itself makes considerable sense and is not affected by Russell's claims that we can neither know the 'real' shape of the table nor describe it precisely. On the contrary such notions as we have of 'real' and 'precise' are closely connected to causal explanations. That is, we can say 'That is not the real color of the table' precisely because we know that it is being viewed under special (abnormal) conditions. We can say that our description of the table is precise because we have taken pains to ascertain what 'precise' means in this case and to ensure that the standards have been met (eg. that special lighting has been used, a spectrograph and/or a magnifying glass has been used etc., etc.).

To conclude this section of factual doubt let me reiterate that it is no good suggesting that perceiving objects is doubtful without indicating what exactly it is that we can doubt. If what is doubtful is simply some fact about the object, then this doubt can easily be allayed. If what is doubtful is something else, some formal relationship, then we must consider this formal doubt separately and at length.
III. Formal Doubt

Let us consider whether Price and Russell are suggesting something more than simply that any particular fact is doubtful with respect to their examples. Let us consider whether they mean to argue the more thorough-going sceptical thesis that formally speaking all the facts are in doubt. Perhaps they mean to argue that I can never be certain that an assertion about a perceptual judgement is a true assertion. Let us consider such assertions as, 'I see a tomato' or, 'The table is oblong in shape.' When I assert these things I believe them to be true. But I realize that I could be mistaken. Experience could prove me wrong. Perhaps my assertions are false.

Now I shall argue that to suggest that experience could demonstrate that my assertions are false implies that experience could also, under altered conditions, demonstrate it to be true. We cannot, unless we are speaking of analytic assertions, suggest that something is false without knowing that it could be true. For example, my assertion that I see a tomato may be true or false. If you suggest that it is false because no tomato is present then we both know that, this being all that is objected to, if a tomato were shown to be in fact present you would not say the assertion is false. This may sound trivial but the implications are I think significant. For what the notion of conditions of demonstrability of either the truth or falsity of an assertion means is that
we have a decision process by which we decide (demonstrate) the assertion's truth or falsity. The assertion, 'I see a tomato' may be true or it may be false. To say that it is true is to imply that necessary conditions for its truth have been satisfied. To say that it is false implies that the necessary conditions have not been satisfied. The notion of conditions of satisfaction is basic to the claim either that it is true or that it is false. The notion of conditions of satisfaction implies that we have a decision process (checking the relevant condition) that allows us to decide one way or the other. If we do have a decision process we are not held in the grip of formal doubt; we are put back to factual doubt. We can apply our decision process, that is we can verify judgements and thus allay doubt. We can ascertain whether the assertion is true or false.

I think that built into the argument from decision process (ie. the argument that if we have a decision process we are not in the grip of formal doubt) is the notion that statements of facts in the world and of my perception of factual states of affairs, to be meaningful, must be verifiable. The assertion that the universe is expanding uniformly seems to be the sort of statement that we could call true or false. But in fact we have no decision process to verify this statement. Nothing I can do will demonstrate its falsity. The most we could say is that the statement is either true or false. To say just this much is to leave us with a tautology.
Thus in the end we have said nothing.

I wish to argue that formal doubt or systematic scepticism takes whatever force it has from denying us a decision process. Let me give an example. Suppose I assert that there is a tomato before me. We shall call this P. The sceptic will suggest that perhaps it is the case that not P. I agree. So the question is Pv-P and I wish to find out what is the case. Suppose I adduce some evidence for P. I argue if Q then P. The sceptic can at this point do either of two things. He can argue that even if Q then possibly not P. If he does this he will be questioning the worth of Q as evidence for P. There may be good evidence or bad evidence and, he will argue, even good evidence may be compatible with the falsity of the conclusion. On the other hand he may admit that Q would entail P if we could establish Q. But he will question Q in the same way that he questions P. Thus if I assert Q the sceptic suggests that perhaps it is the case that not Q. If I adduce R to entail Q he argues that perhaps not R. I wish to decide between P and ¬P and so I adduce evidence and construct an argument. The sceptic claims either that there is no evidence that would entail P, or that even in the special case in which Q entails P we may subject the evidence, Q, to the same sort of doubt as the original assertion, P. (I might note that we need not jump to the conclusion that this entails that there must be an infinite series. The strength of the sceptic's position lies in his subjecting each
piece of evidence that I do adduce to the same sort of doubt. We do not know a priori how much evidence I will present.)

Let us address ourselves to the question of whether it is the case that there is always evidence that would entail P just supposing we could establish the evidence. I think we can show that if P is meaningful then the presence of a conjunction of the factors which constitute a definition of P would entail P. For example where P stands for being a bachelor and a bachelor is defined as an unmarried man then being unmarried and a man would entail being P. Where P is seeing a tomato and seeing a tomato is defined as the occurrence of certain events under certain conditions, then showing that those events did occur under the specified conditions would entail that P did obtain. Thus although we recognize that there is good and bad evidence we must allow that there is always some evidence which entails P. We may move then to the sceptic's argument that the evidence that would entail an assertion is always subject to the same sort of doubt as the assertion itself.

The form of my argument can be shown as follows.

I wish to know whether P is the case or not P is the case.

I argue 
\[ R \supset Q \]
\[ Q \supset P \]
\[ \therefore R \]
\[ \therefore P \]

But the sceptic's argument is simply

\[ R \lor \neg R \]
\[ Q \lor \neg Q \]
\[ P \lor \neg P \]
It is obvious that my argument pre-supposes a decision process; I adduce evidence in support of P (or, of course, evidence that -P). The sceptical argument involves a systematic denial of a decision process. It effectively denies the whole notion of 'evidence for P.' If R, for example, is itself prone to the same sort of doubt as P then it cannot be used as evidence for P.

The net result of the sceptical argument is to deny us all but tautologous assertions. And this is to deny us meaningful discourse, to reduce all our assertions to the same form as that the universe is uniformly expanding.

Now this program is patently absurd. We do assert, and properly, a great many things about perception and about objects. We do decide between P and -P and we do it on the basis of an evidential decision process. We ought to attempt to illuminate what makes the decision process work. First we ought to note that speech is intentional action of a conventionalized sort. We don't usually make assertions without some purpose. I assert that I see a tomato if I want to convey to you some information. When I make the assertion you usually suppose that my internal conditions are normal (that I am not hallucinating, that my eyes or my visual cortex aren't abnormal) and also that external conditions are normal or standard (ie. that there is a tomato there, that light conditions are usual, that what you see isn't just a reflection, etc.).
Speech as intentional action presupposes that we are sufficiently similar to experience the same sorts of things and that we have similar purposes. It presupposes that we know what the conventions are and that agree on conditions of application, that we know what normal conditions are for most sorts of perceptual judgement. Basically it presupposes that we do have decision processes that enable us to decide such things as P or -P. Thus formal doubt attempts systematically to deny a decision process that is presupposed as a foundation of language. Our language is founded upon distinctions between P and not P. Since the terms in our language are defined we must in principle be able to call upon that which constitutes the definitions to serve as evidence entailing the term. The fact that we can do so in principle is telling against the sceptic. It means that in principle we can provide an argument of the form if Q then P for anything which the sceptic questions. Now since we cannot doubt what we cannot verify, the sceptic cannot argue that any particular evidence is doubtful. (To do so would be for him to admit that there is a standard by which we measure and doubt. To admit this would be to admit a decision procedure which his argument is at pains to disallow.) We cannot base doubt on another doubt; we must base it on knowledge of a doubt-free case.

Thus the sceptic cannot convince us to doubt our evidence. What he can do, and all he can do, is ask us for
a demonstration of the evidence which would entail any statement. And this evidence we can in principle supply. Let me illustrate the point. Suppose I claim that Smith is a husband. We may question this. Is he really a husband? So I say Smith is married and a man. Is Smith really married? Yes, Smith entered into a contract with his fiance. Was it a legal contract? Yes, it was signed in the presence of a justice of the peace. Was he really a justice of the peace? Now it can be seen that in asking all these questions the sceptic is not actively casting doubt on anything. He is not asking, nor can he, any questions that we cannot in principle answer. There is therefore no reason this process need be considered destructive. On the contrary, in many situations we could consider it as constructive, each step adding to the amount of evidence I have to support the claim that Smith is a husband. This process may distinguished from denying that a particular piece of evidence is actually the case. It is one thing to ask for evidence for assertions, and to ask for evidence for the evidence, and another to dispute the evidence. The latter case only is doubting. It consists of calling facts into question according to some standard. We have considered already the matter of factual doubt.

In short the sceptic cannot cast doubt but he can ask for a demonstration which we can in principle supply.

There is I think an argument to be made concerning the form of statements about perceptual judgements. Whereas
no conjunction of sense data statements ever entails the existence of a material object, material object statements as a category of course do. However no particular M-statement entails the existence of an object. It implies that such an object exists. But M-statements may be false. They are synthetic and therefore corrigible. Experience in the form of new evidence could always show them to be false. Thus they are corrigible by virtue of their form and not by virtue of any particular fact that is disputed.

I suggest first that the sense in which such assertions are corrigible purely as a matter of form is, in the absence of how in particular they might be corrigible, an empty one. To be relevant doubt must be filled in with some factual hypothesis (i.e. that conditions are not standard, that the tomato is made of wax, that I am dreaming, etc.). What, for example would we say to anyone who suggested that one (or some) of our perceptual judgements was dubitable but didn't suggest any particular reason we ought to feel uncertain about the judgement. I think we would tell him to stop playing around. If there is anything doubtful about the judgement let him tell us what it is.

Finally, let us take the fact that perceptual statements about objects are synthetic. What are we to make of this? Some philosophers have argued that the foundations of empirical knowledge cannot be contingent statements. Others have concluded that what demarcates our scientific theories
about the world from metaphysical theories or from analytic theories is precisely that they rest upon statements which are not analytic but testable; the fact that we can test our basic statements is what makes them the foundations of empirical knowledge.

I think that the most we can conclude from the argument from formal doubt is that we may be mistaken in our perceptual judgements. But this much was never in doubt. We may also be certain. And we know how to decide, how to verify our statements.
IV. Some Doubts About Doubting

The role of doubt is central to the argument from illusion as expounded by both Price and Russell. In the sceptical tradition they allow no component of knowledge to go unquestioned and they are particularly critical of the judgemental element of perception. Price for example, begins his argument by claiming that our perceptual judgements of objects may be doubted. Russell argues that judgements about the 'real' nature of objects or qualities are doubtful. They imply that doubt about perceptual judgement reflects and is reflected by our perceptual language. In Price's case doubt about my judgement that what I see is a tomato will be applicable to an M-statement that I use to express the judgement (i.e. to the statement, 'I see a tomato'). In Russell's case it is suggested that ordinary judgements about qualities of the table are doubtful and this is shown in the fact that we give different descriptions of the same quality under different conditions (i.e. 'the table looks smooth' as seen by the naked eye and, 'It looks rough' as seen through a microscope).

What Price and Russell argue in essence is that ordinary language is inherently doubtful because it is judgemental, because it expresses judgements we make about the existence of objects and their properties. It expresses such judgements as that we see a tomato and not something else, or that the table is really square. They will suggest the adoption of a
perceptual language that does not refer to material objects but is purely descriptive of sense content. Thus the language they propose is more descriptive than judgemental. It is alleged that it does not express judgements that can be shown to be doubtful.

Now as we have seen, to say that judgements are doubtful is to say either that some facts are actually in doubt or that formally the judgement is synthetic, that the content of the judgement may be denied without self-contradiction, or that experience may prove the judgement to be correct or incorrect.

The concept of a factual doubt is *ex hypothesi* a limited concept. A factual doubt signals what facts about the case are in question and in so doing it gives us the clue how to verify either the claim or the doubt. It operates on the presupposition that there is a standard or doubt-free case against which we can measure or test or otherwise compare the questionable case. Almost all the doubts that we come across in our ordinary experience are instances of factual doubt.

Is that Smith's car? Is Smith's car brown? Are there any tomatoes in the market this week? Are they red? Are they ripe? Is this the same desk that was here last week? These are all common examples of factual doubt. We know how to test the cases and how to answer them correctly because before we start we know what the conditions for a correct answer would be.
Formal or systematic doubt doesn't specify any particular fact or facts which are to be held as questionable. It simply makes a blanket statement about all the propositions of a certain form; for formal purposes we must treat them in a certain way. What this comes down to is the judgement that M-statements are synthetic. But this certainly isn't destructive of M-statements. On the contrary it implies that M-statements may be verified. Experience may show them to be correct. Finally, if all our perceptual M-statements are synthetic then what is important is not just noting this fact with respect to any particular M-statement but rather distinguishing between M-statements that are true and those that are false. And this we can only do in virtue of our conventions of having some cases act as standard cases of what is to constitute being an x or what it is to be a doubt-free case of x.

What is particularly tricky is to get whatever it is that is allegedly doubtful in perception isolated either as to factual or formal. Take Price's remark for example, 'When I see a tomato there is much I can doubt.' Now we note that he doesn't give us very much to doubt. He first says simply that it may be a cleverly painted piece of wax. This doesn't sound like much of a doubt; if we know what a tomato is and what a wax replica is we ought to be able to tell in a minute which happens to be the case. But then Price says, 'I can doubt whether there is any material thing there at all.' This starts
to look as though a different sort of thing is doubted. But immediately he suggests that it might be a reflection or a hallucination both of which are easily verifiable questions of fact. The point is that Price has claimed that there is much we can doubt while suggesting only three actual doubts about the tomato. He seems to be suggesting that there is something more than a few facts in question. But it is not clear what.

Similarly Russell seems to move from suggesting that there may be some dispute about how to describe the table precisely, to suggesting that for all the qualities of all objects, their 'real' nature is doubtful. And here he too seems to be moving from factual to formal doubt. Both arguments trade on the confusion of seeming to suggest a great many things are questionable while indicating only a very few.

Let us consider other occasions in which someone suggests that something is doubtful about objects and we are not sure what he means, what exactly is in question. Suppose someone were to ask the following questions of us,

'-What color is this fabric?'
'-What color is it really?'

We would obviously conclude that there was some doubt in his mind as to the color of the fabric. We might reply to his first question that the fabric is purple, to the second that it is made of red and blue threads but looks purple from a
distance.

Suppose he then asked,

'What is the real color of the fabric?'

Perhaps we would again answer that it is red and blue but looks purple under some conditions. But he might tell us he understood that it looked differently under different conditions; what he wanted was the real color.

At this point we become aware that his third question isn't like the other two. We can't satisfy him by giving him any more facts about the case. It appears that his question isn't factual at all. It is not apparent right away just what sort of a question it is. There seems to be something that puzzles the person. Most probably it is this that he has heard us give two or more descriptions of the fabric's color (eg. it looks purple at a distance and red and blue close up) and he somehow thinks these descriptions conflict. His notion of 'real' seems to be that there can be only one 'real' x and that this must always be perceived the same way. This, for example, is the course Russell's argument takes and I have already spoken sufficiently critically of it.

The conclusions that I wish to draw from the preceding examination are as follows. Price and Russell have overlooked the fact that doubt itself must be justified. There must be reasons for doubt; we must know how and why we should doubt any judgement. I have objected of systematic doubt that it denies the whole notion of 'reason for doubt'; it maintains
that no pieces of evidence, no claim adduced as evidence for another claim, is any less doubtful than the original. (Should the sceptic give any reason a certain piece of evidence is doubtful then he has implied a decision process such that we could test the evidence and ultimately verify or falsify the claim and eliminate doubt). Doubt that arises because of the form of a statement arises because verification implies a process that must take place in the future and we can never exclude the possibility that wholly bizarre situations may arise.

The fact remains that to be successful doubt must be justified with reference to some standard. We must know what a standard case is before we can doubt that what we have at hand matches the standard case in the essential respects. To doubt x is logically subsequent to knowing how to verify x. Now what this shows is that ordinary perceptual judgements expressed in ordinary language are not inescapably doubtful. Doubtful judgements are logically subsequent to certain judgements. Judgements may be proven correct. What the argument from doubt has shown is that under certain conditions we can be mistaken in our judgements but concomitantly under other conditions we can be correct in our judgements and we can know we are correct by a verification process.

The relation between factual and formal doubt may be presented by the following argument. From the fact that we sometimes do make mistakes we may conclude that we always
may be making a mistake. But we may counter this argument by saying that from the fact that we sometimes are not mistaken we may conclude that we always may not be making a mistake. The thing to do is to see if we are in fact making a mistake. And no argument has been given to show that we cannot do this. But I contend that what makes Price and Russell's arguments seem stronger than they are is that they do not explicitly make the above argument but they suggest it. They seem to shift between suggesting that particular facts are in doubt (ie. that doubt is justified by conditions or with reference to other facts) and suggesting that all facts are in doubt (ie. that the form of the statement makes it dubitable). The shift is misleading. The strongest conclusion their arguments support is simply that our judgements may be mistaken.

Now I argue that simply to show that we may be mistaken in our perceptual judgements does not, in itself, do anything like the job Price and Russell want done. What they want to do is to discredit our object judgements and the language we use to express them and to demonstrate that they cannot do the job that they allege sense data judgements and terminology can do. Essentially this job consists of providing incorrigible judgements about perception.

First I argue that to show that ordinary or object perception judgements are as a class corrigible does not discredit them for the reason that particular judgements (members of the class) may be verified. They may in effect
be established to be incorrigible at least to any extent that we need. I may establish that there is a pen on the table before me. I may establish the judgement as true and correct and since 'corrigible' is defined as 'subject to correction' I cannot claim the judgement to be correct and subject to correction at the same time. The fact that our judgements can be verified makes them ideal particularly for scientific purposes.

I further argue with reference to the risk of error that I am not restricted to categorical judgements. I may temper my judgements according to conditions. My tempered judgements will be close to incorrigible because they take less risk. Commissurately there is less room for correction. Let me explain. Judgements such as, 'I see a tomato' presuppose a knowledge of tomatoes and also of conditions for seeing tomatoes. Now we may be mistaken about conditions. Conditions may not be standard; we may after all be hallucinating, tricked, in bad light, etc., etc. We can take pains to verify conditions or we can hedge our perceptual judgements. Instead of saying categorically that something is a standard case of x we may express our uncertainty about conditions by saying tentatively that it 'looks like x', it 'seems to be x', 'it resembles x', or 'I think it is x.' We resort to hedged claims when we are not sure if conditions are standard. If you are in my kitchen and I point to the counter and say, 'What do you see?' You may reply, 'I see a tomato.' But if
I say, 'Are you sure? ', you may take this as a hint that conditions are not normal. We don't usually ask if people are sure under normal circumstances. I may be playing a trick on you. I may have acquired some very life-like wax fruit. So you might reply, 'Well it looks like a tomato.' You guard against being mistaken by hedging your claim, by not stating categorically that it is a standard case of 'tomato' but by comparing what you see to the standard case. In the notion of relevant conditions we can find a source of less risky and therefore less doubtful forms of ordinary speech.

Let us now consider another matter, the relative convenience or inconvenience of verifying such judgements that I see an object. Price has claimed such judgements are always doubtful. I have argued that such judgements may be verified and established as doubt-free. Therefore with respect to doubt an M-statement is not necessarily inferior to an S-statement. But it may be held to be inferior in that it requires verification and therefore M-statements are less convenient than S-statements. Thus Ayer says, "At best it [sense data terminology] enables us only to refer to familiar facts in a clearer and more convenient way."

Take for example the pen that is in my hand right now or the paper that is on the table before me. How inconvenient is it to verify that an M-statement about them is true? Certainly one might suggest that I am dreaming or hallucinating
or that the paper may be a reflection or the pen may be made of wax. But how long does it take to verify that these are not the case and that I have a pen in my hand and some paper before me? In such cases I believe we usually say we can tell at a glance that there is nothing doubtful about our judgement. If I doubt anything it is that the pen in my hand is made of wax or that the paper before me is really only a reflection. I know something about reflections; this isn't one. I am sure I am not the victim of a hallucination.

If I am not sure now then I never will be sure. And if I never can be sure then the word 'hallucination' has neither sense nor function.

The point is that most of our perception judgements are neither doubtful nor difficult to verify supposing they are questioned. There seem to be two sorts of perceptual judgements which may reasonably be claimed to be verified only with some difficulty. The first is where we are at some distance from the object or where we cannot move around it. The second is where conditions, for example of illumination, make verification difficult. However as I have remarked above, in the latter case we are likely to temper our judgement as conditions demand. Under conditions where verification is difficult we are likely to consider that categorical judgement is risky and are very likely to hedge our judgement. Even with regard to the former case we ought to consider the ways in which our judgement could go wrong. How could a
judgement that I see an object at a distance go wrong? First there is always the possibility that I am dreaming or hallucinating. But this possibility is no stronger with regard to objects at a distance than it is with regard to objects close at hand. Second they may be, as Price has suggested with respect to the tomato, reflections. But this possibility is somewhat diminished as being unrealistic. Could the car I see across the street be a reflection? It seems unrealistic to suggest that it can. At any rate we do recognize that distance itself has a tempering influence on our judgements. The extent to which we make our judgements categorical matches the extent to which we think they can be verified. Distance is often a factor in causing us to say, 'That looks like x', instead of 'I see x.'

I conclude that for most of our verifiable perceptual judgements it is nowhere near as difficult actually to verify them as many sense datists suggest. Compared to sense data language with respect to convenience of verification, object language cannot be said to be badly inferior. Indeed there are other convenience criteria than ease of verification and these may tip the balance in favor of object language. We shall consider these in a later section.

Finally let us consider the question of ambiguity. Many sense datists, such as Ayer, have suggested that words like 'see' and 'touch' are often ambiguous. And this ambiguity is alleged to arise out of two uses of 'see', one that entails
that what is seen exists and one which does not so entail.
Let us consider the matter with reference to Price's argument.
If I say, 'I see a tomato' where what I see is actually a
wax replica of a tomato, is my statement ambiguous? (First
let us assume we mean that we see a real tomato). The answer
is no it is not ambiguous, it is false. Now consider a case
where I hallucinate a tomato. I say 'I see a tomato.' Is
my statement ambiguous? Or is it false? There is a great
temptation to say it is false on the grounds that one cannot
see a tomato if there is no tomato present. On the other
hand there is a great temptation to say that it is ambiguous
because I believe that I did see something.

Let us therefore consider the logic of the word 'see.'
The statement 'I see a tomato' is, under normal circumstances,
a quite unambiguous one. The use of such statements presupposes
that certain (and normal) conditions obtain. One of the con­
ditions is that there is a tomato present. This presupposition
is what gives such statements their utility, what makes them
public statements. It is what makes it possible for Smith to
act on Jones' remarks that he saw tomatoes in the market, that
he sees the bus coming, that he will see the signal, etc.
It is the knowledge that such statements as, 'I see a tomato'
are either true or false and are generally true and the assump­
tion that Jones' statement, 'I see a tomato' in particular is
true, that allows Smith to act, to ask for the tomato, for a
description of it, for a bite of it, etc. It justifies his
annoyance when he finds out Jones didn't see a tomato but was mistaken or fooling or dreaming. What in fact makes it possible to mislead people, to lie, deceive, etc. is just the fact that under normal conditions such statements are unambiguous and are either true or false.

Now whenever 'see' is used where conditions are not normal, where for example we are hallucinating or referring to the content of dreams or hallucinations or where we refer by intention solely to how things seem visually regardless of how they are, then we are bound to mislead unless we indicate that conditions are not normal. We are, by linguistic convention, proscribed from using 'see' where conditions are aberrant, say in referring to dreams or seeing ghosts or hallucinated objects, unless we indicate that conditions are not normal. Once we have indicated that we are speaking about such special cases as hallucinations then we may properly use 'see.' What this reveals is not that 'see' is an ambiguous word but that although its use presupposes that conditions are normal it may be used with reference to other conditions providing that we signal that conditions are special. The statements, 'I see a tomato', 'I saw my father last night' and 'I see two lights' are not ambiguous statements yet they would surely mislead us if we did not know that they were spoken respectively by a man having a hallucination, by Hamlet, and by a man being examined by an oculist. In short I would express my conclusion in the following form. There is no onus
on us to assume conditions are normal; the use of the word 'see' implies they are so. It would be misleading to claim we make or should make any such assumption. We are not required to assume. But there is, on the other hand, an onus on us to indicate that conditions are off-standard where there is any possibility of ambiguity. Ambiguity lies solely in the failure to signal the presence of non-standard conditions.

At any rate, should anyone insist, unreasonably I think, that the above constitutes ambiguity of perception verbs, we could counter that such words as 'see' are not inescapably ambiguous. We can, with reference to conditions, discover what is meant. The case for saying 'I see a tomato" is ambiguous is, if anything, less strong than Price's case that I may doubt my judgement that I see a tomato because of the possibility of dreams. In each case the judgement may be verified; doubt and ambiguity may in principle be dispelled with reference to conditions.

Again the comparison with sense data language will center not on any inescapable defect of ordinary language but on the question of convenience. Price has not shown that ordinary language cannot be precise or that M-statements cannot be verified. With respect to factual doubt he has just brought out some of the factors that we take into consideration in verifying them.
FOOTNOTES - CHAPTER TWO

11 I think however that Austin was mistaken calling 'real' simply an adjuster. As Forrest and Coval have shown (*Which Word Wears the Trousers*, Mind, Vol. LXXXVI, no. 301, 1967) 'real' is better described as a re-adjuster. It puts us back to standard.
CHAPTER THREE

ON INDubITABILITY AND THE ARGUMENT FROM ILLUSION

I. The Introduction of the Indubitable Element, Sense Data

Whereas Price and Russell suggest there are many things we may in fact doubt when we see tomatoes and tables and other such objects, and many things we must allow are formally dubitable, they do claim there are some elements of our perceptual experience which are not dubitable.

As Price says,

One thing however I cannot doubt; that there exists a real patch of a round and somewhat bulgy shape, standing out from a background of other colour-patches, and having a certain visual depth, and that this whole field of colour is directly present to my consciousness. What the red patch is, whether a substance, or a state of a substance, or an event, whether it is physical or psychical or neither are questions that we may doubt about. But that something is red and round, then and there I cannot doubt...that which is thus present is called a datum. The corresponding mental attitude is called acquaintance, intuitive apprehension, or sometimes having. Data of this special sort are called sense data.

What this means I think is that Price believes that an essential condition of seeing tomatoes is that certain colored shapes be present to consciousness. It would be difficult indeed to deny this. But let us pause for a moment to examine some implications of his argument.
Ordinarily when we say we see tomatoes the use of the word 'see' presupposes that several conditions obtain. One of the conditions, to be sure, is that certain visual shapes be present to consciousness. But it is important to recognize that this is only one of a number of conditions. Let us here consider what are the necessary and sufficient conditions of seeing tomatoes. There is of course the presence to consciousness of the requisite shapes. There is also the presence of a tomato. We must be looking at the tomato under sufficient illumination, we must not be hallucinating, and in short the tomato must play a (or the) causal role in our awareness. (It is very tempting simply to say that we must in fact see a tomato.)

Similarly the necessary and sufficient conditions of seeing a wax replica must involve not only the presence to consciousness of the same sort of visual shapes as above but also the presence of a wax tomato under sufficient illumination. To see a reflection of a tomato there must not only be certain shapes present to consciousness but the condition that our awareness of these shapes must come not from looking directly at a tomato but from looking at a medium which is reflecting light from the tomato.

On the other hand the conditions of hallucinating a tomato may just be that we are aware of certain shapes present to consciousness where a real tomato does not play a causal role.
What Price has done then is to introduce as indubitable a factor common to all four possibilities. What he has done, in effect, has been to analyse each possibility into its components. That component which is common to all possibilities is the indubitable sense datum.

Now the point is that the sense datum Price describes is only a partial analysis. We can readily admit that the presence to consciousness of certain shapes is a necessary condition of seeing tomatoes, seeing replicas, seeing reflections of tomatoes and of hallucinating tomatoes. But it is a necessary and sufficient condition perhaps of only one of them, hallucinating tomatoes. (Actually I think it cannot be a necessary and sufficient condition even of this because we must stipulate with regard to hallucinating that a tomato isn't causing the shapes. I may be hallucinating a tomato in the presence of a real tomato.)

There are two points I would like to raise about this. The first is that Price's introduction of sense data doesn't accomplish anything that cannot be done by ordinary language. If conditions are such as to make me doubt that what I see is a tomato then I ordinarily hedge my claim by saying one of the following,

'I think I see a tomato'
'I think that is a tomato'
'That looks like a tomato'
'Unless I'm wrong that's a tomato'
"If I'm not seeing things that's a tomato."

Notice that implied by all these claims is knowledge of what seeing a tomato actually is. Seeing a tomato is the standard. These claims set us in relation to the standard; they compare our present experience with the standard. They suggest that our experience is in at least one way — the visual appearance — like the standard. They suggest that what we aren't sure about is whether present experience is like the standard in other ways. So what we are saying is, in effect, that regardless of what our experience is of, we cannot doubt that it is like seeing a tomato. In utilizing the notion of a standard case we ordinarily have reference to a common denominator.

The second point I would like to make is that supposing there is any doubt about what our experience is of (is it of a tomato, a replica, a reflection, a hallucination?) the introduction of sense data doesn't help to dispel the doubt one bit. If it is a practical problem to distinguish seeing a tomato from dreaming that we see a tomato then just giving a description of our visual content certainly won't dispel any doubts we have. If it is a practical problem to distinguish between seeing a tomato and seeing a wax copy then it will be no easier to solve this problem by considering only the visual sense datum than it will by judging that what we see looks like a tomato. In each case we avoid the problem rather than solve it. I concede that just by looking
at the object I may not be able to tell whether it is real or wax. If I cannot make other tests then admittedly I cannot be doubt free when I say, 'That is a tomato', or 'That is a wax tomato.' Under those conditions, where I cannot move or touch it, my M-statement, if categorical, will be dubitable. (I have argued that under such circumstances I wouldn't make a categorical judgement.) Thus if I have a practical problem, if I must distinguish between them, and I am not allowed a decision process, then my M-judgement will be doubtful.

What has not been noticed however is that the sense datist is in no privileged position to solve the practical problem. The family of sense data identified with tomatoes differs from the family of sense data identified with wax tomatoes. Without a decision process the sense datist is not going to be able to identify the sense datum he has as to its family. In giving a description of his sense datum he may give an S-statement that is indubitable. But the price of its indubitability is its utility. His sense datum is indubitable because it takes no risk. It describes a sense datum but does not identify it as to family (or pattern, or cause, or material object counterpart). A simple continuous description of sense content, without interpretation in the form of an identification of families, would be singularly inutile. But identifying sense data as to families involves a decision process. It is, by the way, the same sort of decision process as required for M-judgements. It I want to
know whether the tomato I see is real or wax I touch it. If I want to identify the sense datum as to its family I correlate visual data with tactile data (ie. I touch it). This is why we cannot allow the sense datist to use a decision procedure which has been disallowed to his M-language counterpart. And if we do allow it to M-judgements then the M-judgements may be verified, established as doubt-free, and we have no reason to follow Price's proposal to introduce sense data.

What Price has suggested is that with respect to the same perceptual experience there is an asymmetry between the M-statement, 'I see a tomato' and the S-statement, 'I have a sense datum of a round, bulgy shape, etc.' We can certainly admit this. There is an obvious asymmetry between the judgement that we have identified the cause of our experience from a range of four possibilities (always dubitable) and the judgement that we have experienced a sense datum common to all four possibilities but which we haven't identified with any of them (always indubitable). The judgements are asymmetrical because although they refer to the same experience, they don't mean the same thing. The M-statement identified the experience. The S-statement describes sense content but is non-committal as to identifying the family to which it belongs (or the physical cause, or physical counterpart, of the datum).

Thus it is obvious that the S-statement achieves its indubitability by not taking any risk. We could formulate
an M-statement along the same lines. We could formulate a risk-free M-statement by giving a disjunction of all the possibilities. For example we could say 'I see a tomato, or a replica, or a reflection, or I'm hallucinating a tomato, etc.' But we ought to ask what use a risk-free M-statement could have. And we ought as well to ask what use Price's risk-free S-statement could have.

Now certainly Price does not intend to stop his sense data program with the introduction of sense data. But his next step must surely be to identify sense data according to the family to which they belong. This will involve distinguishing between, or identifying, the sense data associated with seeing tomatoes, and those with seeing replicas, seeing reflections, and hallucinated tomatoes. Even a sense datist must face the problem of distinguishing between the sense data identified with a tomato and those identified with a wax copy. Even a sense datist must allow for the fact that people dream. He must therefore have some way of identifying dreams.

There can be no asymmetry between the object language judgement that we identify our experience as one of four possibilities (ie. as that we see a tomato and not a replica, etc.) and the sense data language judgement that we identify our sense data as belonging to one family or pattern and not another (ie. that my sense data are part of the family that has a tomato as its physical counterpart and not a wax replica).
Therefore the difficulties that Price has alleged to beset the first sort of judgement must beset the second. Sense data theory escapes them only by being non-committal.

One might put the point this way. We have in most cases a greater interest in the differences than in the similarities of our perceptual experiences. I argue that we have an overwhelming pragmatic interest in distinguishing between perceptual experiences, in distinguishing seeing tomatoes from hallucinating tomatoes or from seeing wax tomatoes. We must attempt to distinguish them. We must make minimally hedged claims.

Ordinary language reflects our interest in real tomatoes by taking as a standard the case of seeing a real tomato and hedging doubtful cases by comparing them to the standard case. (ie. 'This looks like a tomato' compares our present experience to that of a standard case of seeing a tomato.)

Any useful sense data program must reflect our practical interest in a similar way. The argument Price has presented argues our ordinary judgement to be dubitable. But such indubitability as has been achieved by his introduction of sense data derives from ignoring our practical interest and refusing to take any risk. Price certainly plans to complete a sense data program that will reflect our practical interest. He will want to cash our physical object concepts in terms of families of sense data. But the argument which I have quoted cashes several physical object concepts in terms of one sense datum. This is the source of alleged indubitability but it is a
cul de sac from which he cannot escape without encountering the original problem of dubitability. Identifying families of sense data will be as risky as identifying objects. To say that objects are logical constructions out of sense data doesn't achieve indubitability; we can incorrectly construct. The point is, essentially that sense data language is confronted by the same sorts of doubts as object language. And this is because we want it to do the same sorts of things. As I have said before, speech is intentional action of a conventionalized sort. Sense data language will have to take our intentions into consideration. It must reflect such intentions as that I inform you that, say, a train is coming. M-language reflects this in the statement, 'I see a train.' Sense data language if it is to reflect such intentions must say something like, 'I have a sense datum of the following description which I identify with the following pattern', or something of the like. To be intentional, for language, is to be informative. To be informative sense data language must identify sense data according to families.

Russell produces a rather different argument which he feels is conclusive in establishing that having certain sense data is a necessary and sufficient condition of perceiving an object, in his case a table. His argument is essentially that touching tables just is experiencing sense data. Let us examine his argument. As we have seen he has considered several aspects of the table (its shape, color, texture)
and with respect to each he claimed to find that "our confidence in our senses deserts us." Then he considered the sense of touch and noted that although the table "always gives us sensation of hardness, and we feel that it resists pressure... the sensation we obtain depends upon how hard we press and also upon what part of the body we press with."

This, he thinks, forces us to the following conclusion,

the various sensations due to various pressures of various parts of the body cannot be supposed to reveal directly any definite property of the table, but at most to be signs of some property which causes all the sensations but is not actually apparent in any of them. And the same applies still more obviously to the sounds which can be elicited by rapping on the table.

Thus 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, if there is one, is not immediately known. Hence two very different questions at one arise; namely (1) is there a real table at all? (2) If so what sort of an object is it?

He goes on to define and clarify some terminology.

Let us give the name of 'sense-data' to the things that, are immediately known in sensation; such things as colours, sounds, smells, hardnesses, roughnesses, and so on. We shall give the name 'sensations' to the experience of being immediately aware of these things...it is plain that if we are to know anything about the table it must be by means of the sense-data ---brown colour, oblong shape, smoothness, etc.; but for reasons which have already been given we cannot say the table is the sense-data, or even that the sense-data are directly properties of the table. Thus a problem arises as to the relation of the sense-data to the real table, supposing there is such a thing.
Now clearly Russell feels that his examination of the various aspects of the table has sufficiently discredited our naive common sense notions about the table to introduce mediate elements in our perception. We ought, he thinks, to conclude that we do not directly perceive objects. We directly perceive sense data and we know objects only by means of sense data. In fact, claims Russell, we infer them from sense data. Our inferences can go awry, can be doubted, but the primitive data are, he claims, indubitable. As he says later in his chapter on knowledge by acquaintance and knowledge by description, "We have seen that it is possible, without absurdity, to doubt whether there is a table at all, whereas it is not possible to doubt the sense data."4

I think the first cautious step in a critical examination of Russell's argument is to note what seems to be an asymmetry in his presentation of it. By this I mean his turn from talking of the shape, color, and texture of the table (things we think of as properties of the table) to talking of our 'sense of touch' (which we generally think of as being a faculty by which we became aware of some properties of the table). Since Russell ultimately considers the properties of the table to be simply objects of our sensory faculties and gives all such objects the same status, sense data, we can't suppose that he thinks his move is of much import. But he has to show by independent argument that properties of tables are sensations or sense data or constructs from them.
He seems to be begging the question. We ought not to let him build his case on un-articulated presuppositions. It is the overhasty ignoring of such subtle shifts of focus that often inculcates the pseudo-simplicity of many philosophical programs.

What, I think, this little shift does is to allow Russell to introduce 'sensations', (or as he later amends, 'sense data') into his examination of seeing the table. He has not mentioned 'sensations' in his examination of the color, shape or texture of the table but they are casually intruded into the account of the sense of touch. We are not at first inclined to object, being I think somewhat lulled by the word 'sense.' That the 'sense of touch' gives us 'sensations' doesn't particularly jar us.

The account of the sense of touch is meant to be decisive, to be the account in which Russell's conclusions are explicitly drawn. Let us examine his argument again.

(1) "The table always gives us a sensation of hardness."

(2) "The sensation we obtain depends on how hard we press...and what part of the body we press with."

(3) "Thus the various sensations due to various pressures on various parts of the body cannot be supposed to reveal directly any definite property of the table but at most to be signs of some property which causes them."

(4) "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 all."
A question of paramount importance is how much of the conclusion is implied by the first premise? If we are going to consider perceiving the table only in such terms as that "the table always gives us sensations," then we have, I think, given the case away. For 'sensations' just are in Russell's view directly perceived, immediately known to us, and intermediate as between us and the table. They belong, in principle, to the person who senses them. They never could be properties of tables; at best they could be caused by tables.

We ought as well to examine the term that forms the crux of the conclusion, the term 'what we immediately experience by sight, or touch or hearing.' Now obviously if 'immediately experience' means awareness of sensations, if it refers only to having sensations then ex hypothesi the only answer to 'what we immediately experience' is 'sensations' and "the real table is not immediately known to us at all." This applies as well to the expression 'to reveal directly.' If only sensations can 'reveal directly' then we cannot be directly aware of the table. But if these expressions need not refer solely to 'sensations', but are compatible with M-judgements, then Russell's conclusion is invalid and probably false.

His argument seems doubly circular. Obviously if we can only legitimately talk about perceiving the table in terms of experiencing sensations, then it follows that what we immediately experience are sensations. And conversely if we can only legitimately talk about 'immediately experiencing'
in terms of sensations then it follows that what we imme-
diately experience when we perceive the table are sensations.

Now first of all Russell hasn't established that we
can only *legitimately* talk about perceiving the table solely
in terms of experiencing sensations. He has not shown that
there is any overwhelming difficulty in saying, 'The table
feels hard.' The tenor of his arguments, as they pertain to
seeing the shape and color and texture, would indicate that
his argument, had he not turned to a 'sensations' account,
would be something like as follows: under some conditions
the table feels hard, under other conditions it feels dif-

erent; therefore we do not feel (but infer) the 'real' table
(or its 'real' hardness). As I have shown his use of 'real'
is mistaken. His argument to the contrary, we expect a real
table to feel differently under different conditions (and a
hallucinated table perhaps to feel the same).

Let us see what happens if we re-cast Russell's argument
without using 'sensations.' He has given an S-statement
account of perceiving the table; let us give an M-statement
account. Instead of choosing to talk of 'obtaining sensations'
let us talk of 'feeling the table.' Russell's first premise
(1) can easily be translated as, 'The table always feels
hard.'

Translating the second premise (2) brings out some
difficulties. The expression, 'the table feels hard' seems
to do a double duty, to refer to our interaction with the table.
It may be construed as reporting on a property of the table. But it may be used to make a lesser claim about the table than that it is hard; it may be construed as reporting on our subject we experience (while not necessarily denying the role of the table nor any property it may have). The first construal will be consistent with an M-statement account. Thus we shall say for premise two, 'Our assessment of the hardness of the table will come in part from how hard we press and what part of the body we press with.'

But now, if we attempt to translate the conclusion (3) by, 'Feeling the table with different parts of the body or with different pressures cannot be supposed to reveal directly any definite property of the table but at most to be giving us signs of some property which causes us to feel as we do', then the conclusion is obviously counter-intuitive. Of course, we wish to say, we discover how hard it is, what its texture is, how rough, how smooth, etc. Suppose someone were to offer us a piece of fruit of a type with which we are unfamiliar, let us say a persimmon or a pomolo. Surely we wish to say that we discover its properties by feeling it, peeling it, eating it. Shouldn't we also wish to say that we directly discover them?

Let us now consider the use of the word 'directly.' In brief I shall argue that like 'real' it is an adjuster. 'Directly' serves mainly to exclude ways of indirectly doing something. There is no one way of doing something directly.
We don't usually see any need of using 'directly' in statements about discovering properties except to distinguish from some way of indirectly discovering them. Seeing Smith, who likes sweet things and dislikes tart fruits, relish a piece of fruit may be indirectly discovering that it is sweet. But, then, tasting it ourselves will be directly discovering it. We don't usually feel called upon to say we 'directly discover' unless it is to distinguish our procedure from some adjusted case. There is a strong and misleading suggestion in Russell's argument that 'directly' has a positive function that is supportive only of experiencing sensations.

Finally let us re-cast the rest of the conclusion (4) as, 'The real table is not the same as what we feel. The real table is not felt at all.' Again the result is counter-intuitive. What sort of a table do I feel if I don't feel the real one? It seems to make perfectly good sense to say I feel the real table but I admit that the context in which it makes sense is, by the account I have given of 'real', the context in which we want to distinguish some possible way of being not real. Russell's account, as I have argued earlier, rests on a misconception about 'real' such that it has an almost Platonic sense, ie. We can't feel the real table because the real table isn't the sort of thing that it is possible to feel (or for that matter, see). And this again is in virtue of his introduction of 'sensations' as what we (really) discover, perceive or immediately experience.
Now I would like to make it clear at this point that I am in sympathy with a great deal of what is positive in Russell's account. We look at tables, we feel them, etc., and we also have various sensory experiences which are connected with these exploratory activities. I believe it may be of considerable philosophic virtue if not to say interest to introduce the concept of sense data to analyze these personal experiences, for example which we describe by saying 'from here it looks silvery and diamond shaped.'

What I object to is the negative aspect of Russell's account. His argument as I have quoted it above is quite negative; its conclusions are negatively expressed. Thus the existence of the 'real' table is questioned. 'The real table ...is not immediately known to us at all.' The main thrust of his argument seems to be against our ordinary account that we see (real) tables, discover their properties, and can precisely describe them. I think his program is to establish his sense data analysis and then claim that objects ('real' objects) are logical constructs out of sense data. This is in line with the Russellian maxim that wherever possible logical constructions ought to replace inferred entities. I object here only that his argument hasn't supported his negative conclusions. The 'ordinary' account of objects and their properties hasn't been demolished. It certainly hasn't been established that these things are just inferences in need of replacement. I shall talk about inferences shortly.
I argue with respect to Russell's argument, quoted above, that if the premises are S-statements (which I think they are), then it simply does not follow that we can conclude anything destructive of an M-statement account of perceiving the table; not, any any rate, without the further premise that S-statements are all we are ever justified in using with respect to our perceptual experience of the table. And since this last is what we are trying to demonstrate, we can't include it as a premise. I have demonstrated my contention by substituting M-statements for S-statements in the premises and thus showing the conclusion to be not only invalid but false.

What is at issue is the relative status and utility of M-statement and S-statement accounts of a given perceptual experience. If one begs the question and assumes that we perceive (or 'immediately experience' or 'immediately know') only sensations, then, sensations being subjective, it follows that the existence of an objective table would be in question and we could rightly say that the properties of the 'real' table are not directly revealed to us. On this account, which I think is the course Russell has taken, one simply ignores perception verbs that figure in the M-statement account, until a secure beachhead has been established for sense data. Then one retrospectively interprets such verbs according to the sense data model. That is one would simply ignore the M-statement, 'I feel a table' until he felt he had established a sense data account such that 'what we immediately experience
by touch' are sense data. Then one would argue that 'feeling a table' must be interpreted as involving something constructed from sense data, i.e. 'feeling a table' becomes simply having certain sense data in a certain context.

I think that a basic flaw in sense data programs and particularly Russell's, is to attempt to subsume all the ways we are aware of the external world under one generic term and all the things of which we are aware under a corresponding generic term. Thus 'we perceive only sense data', or 'we immediately experience only sense data.' But this argument from generic terms can not be established by reference to facts; it is essentially a programmatic matter. 'Perceive' is a generic term for all sorts of verbs connected with sensing or with becoming aware by means of the senses. Some of these verbs refer to objects, some refer to objects or sensations. We 'touch' objects but not sensations. We 'feel' objects and we 'feel' sensations. Most important is to note that there is no one way to perceive anything nor any one thing we perceive. There is no one way to immediately experience things nor only one thing we immediately experience. The different verbs and sorts of judgements we make about the world with them may very well have different and separate sorts of logical status. Statements reflecting some of these judgements, say M-judgements, need not be equivalent to the truth-functions of other sorts of statements, say S-statements. Indeed, since no conjunction of S-statements entails the existence or non-existence of a
material object, then I cannot see how S-statements and M-statements could be equivalent. At any rate the attempt to lump them together under generic terms is quite specious. Even though we were to grant that whenever we perceive we are sensorily aware and what we are sensorily aware of are sensations, this would only imply that there is a correspondence between M-j judgements and S-j judgements. It is the case that when we perceive objects we also perceive sensations. But this statement is true only because we have used the generic term 'perceive.' It is not true if we substitute just any perception verb or combination of verbs for 'perceive.' eg. It is true if we substitute 'touch' and 'feel', or 'feel' and 'feel', as in, 'When we touch objects we feel sensations', or 'When we feel objects we feel sensations.' But it is not true if we substitute 'touch' and 'touch.' eg. as in, 'When we touch objects we touch sensations.' There can be no one thing we perceive because 'perceive' is by definition a generic term standing for many verbs which take many sorts of nouns as their objects. Sense data theory has been motivated by a search for simples in our language and in our judgements, a search for epistemological foundations. Arguments like Russell's which depend upon the use of generic terms beg the question. They make too free use of the terms 'perceive' and 'immediately experience.' A piecemeal analysis shows that the subspecies of the generic families show at least two sorts of judgements each with separate logical status.
Let us now consider the matter of inference. Russell says we infer the real table and its qualities from glimpses of it. And of course, in accordance with his maxim, 'Wherever possible logical constructions are to be substituted for inferred entities', he wants us to analyze our M-language object names in terms of logical constructions from sense data. But do we infer objects and their qualities? Let us go over Russell's argument yet another time. The table looks as if it had four $90^\circ$ angles if seen from directly above or below; it looks as if it had two acute and two obtuse angles from all but other points of view. Therefore we infer its (real) shape.

First as I have suggested before we must deny that we should say the table looks as if the table had two acute and two obtuse angles. A two-dimensional representation does. Perhaps a sense datum, if considered as a two-dimensional mapping, does. But the table does not. And sense data have not yet even been introduced in Russell's argument!

Furthermore there is considerable strain on the word 'infer' if every case of perceiving objects or their qualities is to be called inferring. We usually think of inferences as being particular. eg. From the fact that the table is ten feet long I infer that it won't fit in the room. We usually say we learn the shapes of objects and infer things from our knowledge. I think it is at least as plausible to say that implicit in the notion of being an object is the
fact that it has other sides, a three dimensional shape, a color, etc. as to say that implicit in the notion of an object is the inference that it has other sides, etc. I for one take it that the fact that something is a table and not a reflection or a hallucination, or a picture or a dream, implies that it is three dimensional solid, etc.

Yet further if to infer is to derive by reasoning, then I am certainly not aware of inferring when I see objects. I cannot think of what chain of reasoning I actually go through. I recognize objects and this implies that I must know something about objects. One of the things I know is that they are three dimensional, solid, colored, etc.

But finally, it is not necessary even on Russell's account that we infer the qualities of the table. If the table looks smooth now and looks rough under a magnifying glass, I may just choose to call it smooth until it becomes relevant to call it rough or to say it looks rough. But I need not make any inference. Again much of the work in Russell's argument is done by 'real.' He wants to know the 'real' texture; this question is obviated by the adjuster analysis of 'real.' Similarly with shape. I call the table rectangular. If it seems relevant I will say it looks diamond-shaped; if it doesn't I won't. I choose to say the table is brown; I may choose to call it shiny or another color. But choosing isn't inferring. There is no one way of being a real quality of an object nor one way of being precise in our description of an
object's (real) quality. It seems to me that sometimes we
take qualities as data and sometimes we take objects them­
selves as data. I see no reason to say that objects are always
inferred from more primitive data. 'Object' may itself be
primitive, in that we learn about objects at the same time
as we learn about qualities.

The question of which sort of data to take as basic
makes it appear as though there are two conflicting accounts
of perception. That is, that there is one account which has
it that sense data are basic and that our notion of objects
are either inferred or constructed from them (ie. we perceive
redness, roundness, softness, smoothness, juciness, etc., and
we identify these sense data as belonging to one pattern and
we call this series of sense data tomato). And there is another
account which holds that our notion of objects is basic and
holds a foundational place in ordinary language such that
we ascribe sense data or qualities to them (or as something
causd by them), ie. The tomato is red, round, soft, etc.,
etc. We teach what red is by ostention, by pointing to tomatoes.

If we conclude that what Price and Russell have done
is not to have established a fact about the world, that what
we perceive is one sort of thing, sense data, but to have
outlined an account of perception alternate to the one we
ordinarily use, then the question is can this alternative
account do something ordinary language cannot do? Can it
avoid mistakes. To answer this we must examine closely the
alleged indubitability of sense data.
II. Some Doubts About Indubitability

Sense data, for example the visual experience that I indisputably have when I either see or think I see a tomato or when I look at a table from different points of view, were introduced by Price and Russell as indubitable elements of perception, (eg. Price: "One thing however I cannot doubt; that there exists a real [sic] patch, etc., etc."). If we wish, for certain philosophic reasons, to make incorrigible statements about our perceptual experience of the world, we must, they argue, restrict our discourse to statements about the indubitable elements of perception. I have criticized their claim that ordinary, or object, judgements are inherently doubtful. Let me here criticize the alleged indubitability of sense data. First there is the question of the datum itself. Is a description of the datum in fact indubitable? May I doubt that Price intuits a round, red, patch? May he, contrary to his claim, doubt it? I think these questions concern a vital matter, namely whether descriptions of sense data are simple, unhedgeable statements or whether they must be hedged with reference to some standard. This point will be brought out by considering whether, and if so how, descriptions of sense data are ever subject to verification. The second major question with regard to indubitability concerns the function of the data. Supposing the data themselves to be indubitable, what sorts of things are we going to do with the data? How are we going to organize or interpret
the data; what are we going to construct with the data? We must ask if any of these things are open to doubt. And finally there is the question of precision. Russell has said that with respect to describing objects, "as soon as we try to be ... precise our troubles begin." His examples, and Price's, of sense data seem rather simplistic. Are there any troubles regarding precision to be met with in giving sense data descriptions? Let us turn to these matters and see if and how these questions can be answered.

First I shall note that if we are to take as hard a line on doubt as the sense datist seems to want us to take, then we would have to conclude that strictly speaking what is indubitable about perception is only that which is presently perceived. Since memory is notoriously fallible, the fact that I think that I perceived a table a minute ago does not necessarily mean either that I did perceive a table or even that I hallucinated or dreamed, etc. a table. It is I admit, somewhat difficult to see how this is possible, i.e. how I could think that I sensed some sense data without having sensed them. But unless we expressly rule out (and I don't think we can) the possibility of present hallucinations or misjudgements that at a particular point in past time I sensed a table sense datum, then we must allow that statements about past sensory perception are subject to doubt. We may even argue that they are subject to an essentially stronger doubt than anything the sense datist has suggested about statements.
about object perception. The reason is as follows. If I say, 'I saw a tomato on the table', someone might be able to show me that what I thought was a tomato was a wax replica or a reflection. On the other hand, perhaps he might validate my claim by showing me that there was indeed a tomato there. But if I say 'I saw a round, bulgy shape, etc.', then the only way someone else could verify this statement is with reference to an object (ie. by saying that I must have had this sense datum because there was a tomato there). He could not falsify the statement. The statement isn't self-verifying and given the fallibility of memory I cannot myself verify it without reference to public or object judgements.

This point is illustrative of a general difficulty with sense data unforeseen by their proponents. Disputes about objects are publicly decidable because claims about them are publicly verifiable or falsifiable. Claims about sense data are only verifiable or falsifiable with reference to public objects. Let me put the case in terms of corrigibility or incorrigibility of statements. If I say 'I see a tomato' my statement is held to be corrigible because evidence could be adduced to show that I am mistaken. Now I have argued earlier that to show a judgement can be mistaken is to entail that we know how it can be correct. We must have a doubt-free or standard case. The standard case is where statements are no longer hedged but are categorical. I may hedge this or that perceptual judgement that what I see is a
tomato but to do so I must know what a tomato is. To know this is to know the conditions under which 'This is a tomato' is true and therefore *ex hypothesi* unhedged.

If I say 'I sense a red, bulgy shape', then my statement seems incorrigible because there is no evidence anyone can present that would counter my claim. But on the other hand the only reason I can give to justify my describing my sense datum as 'red', (and the only way I can explain what 'red' means supposing you are ignorant of the term) is to refer to a standard case, to point to something red and say that what I saw resembles it. What I must do is say that my sense datum was or is like a standard case of red in the essential respect. I justify describing my sense datum as red by comparing it to a standard. And this is tantamount to saying that I hedge my sense datum description with reference to a statement that is itself unhedged, ie. 'I say my sense datum is red because it is like this and this is red.' We can, therefore, in principle, doubt that someone is using language correctly when he describes his sense datum as 'red.' We must after all **judge** that a given sense datum is red. Therefore obviously the sense data program has not escaped the judgemental aspect of perception. We justify judgements only with reference to a standard. Sense data judgements are not indubitable.

The sense datist assumes the condition that we always accurately describe our sense data. But he can give no criteria
for determining what accuracy is unless it is with reference to something public, doubt-free, standard. I may mis-describe a tomato by saying that it is red when it is pink or green. In this case you can show me that I have mis-described it. But I can also mis-describe my sense datum. There is nothing which logically prevents me from erring by saying that the sense datum I have is red when it is pink or green. But in this latter case one could only show I had made a mistake if he ascertained with reference to a standard that I commonly misused the word 'red.'

Furthermore we ought not to suppose that descriptions of sense data involve any built-in precision that descriptions of objects do not have. For one thing in the latter cases we have ways of testing descriptions, in the former we do not. Often, for example, we are not sure that our descriptions of objects are precise enough for our purposes. How red are tomatoes? Often they seem more orangey or pinky than red. Sometimes we speak of 'tomato' as the name of a color. It is pre-supposed that we can all look at tomatoes to see for ourselves what color they are. We amend our claims in the light of public examination. Suppose I describe the nap of my carpet as 'rough' or 'looking rough.' This isn't a very precise description of the surface of the carpet because we don't have precise standards of what is smooth or rough for carpets. But the description might be useful under some circumstances. (eg. 'This carpet is no good for practicing
putting; the nap is too rough.'

The point is that it is no easier to be precise in describing sense data than objects. I may always describe my sense datum as red when it is more orange or pink than red. I may describe the nap of my carpet sense datum as rough. But I may not be convinced 'rough' is the right word. On the other hand I may not think it is the wrong word. I argue that it is a mistake to consider descriptions of sense data in vacuo for there are many things to be considered in describing. Purpose and context, for example, play a large part in deciding whether such words as 'rough' apply to carpets.

Let us consider some of the difficulties in describing sounds. Suppose that I hear a violin sound that is very much like a cello sound. I may doubt that what I hear is a violin sound. It may be indisputable that I experience something. But how can I give an indubitable description of my sense datum? I may, as Price would be quick to point out, be mistaken about the source of the sound and about the pitch and timbre of the sound. But how would I describe my sense datum such that it is indubitable? My ordinary judgement, that I hear a violin sound, may certainly be doubted. But what is the indubitable sense datum judgement which I would contrast to it? With respect to the visual case, Price says, "When I see a tomato there is much I can doubt....One thing however I cannot doubt; that there exists a real patch of a round and bulgy shape...That something is red and round, then and there
I cannot doubt." Let us compare the audial case. 'When I hear a violin there is much I can doubt. One thing I cannot doubt; that something is....' How shall I fill in this description? I can say that a sound is present to my consciousness perhaps. But how shall I describe the sound? And be precise?

I conclude that the only way the sense data program could work with respect to sounds would be with reference to a standard. This amounts to hedging our claim by saying it is like the standard case. Thus the point I have argued concerning visual sense datum statement is more strongly exemplified with regard to audial sense data, i.e. Even the sort of exchange as follows,

'I sense red.'

'How do you know it's red?'

'Because it matches that.' (pointing to tomato, sunset, etc.) is impossible with regard to sound because we cannot fill in what we sense: i.e. 'I sense...what? a violin?, a string instrument?, the note F#'? None of these is properly a sense datum description. Certainly none is indubitable.

Now even if we ostensively define for ourselves the features of audial events and so establish a private standard, we could always doubt whether we were accurately matching present experiences to the standard.

There are similar difficulties with reference to shapes. Most of the examples of visual sense data that we usually
encounter in arguments from illusion are roughly geometric in shape, eg. 'looks elliptical', 'round, red, bulgy', 'looks as if it has two acute and two obtuse angles', etc. Now bearing in mind Ayer's remarks previously quoted that sense data terminology 'enables us to refer to familiar facts in a clearer and more convenient way', is intended 'to eliminate problems which arise out of the ambiguous use of words like 'touch' and 'see', and has the advantage of 'enabling us to refer to the contents of our sense-experiences, without referring to material things', we must contend that this alleged clarity and convenience etc. does not apply to irregular shapes. It would be most difficult to describe clearly, conveniently, and precisely, the visual sense data associated with for example a cat.

The difficulty applies to Price's argument as well. Let me substitute a black cat for a tomato in his argument. 'When I see a black cat there is much I can doubt....One thing however I cannot doubt; there is a black shape present to consciousness....' But how would we fill in a description of this shape (without of course saying it 'looks like a cat')? How could we communicate the content of our visual experience? It would seem indubitable that we have sense data of cats but it seems impossible to give precise, convenient descriptions of this indubitable data. This seems to go against the grain: what is indubitable ought to be clearly describable. It does not help to say that sense data are that which is experientially
encountered. This begs the question for we can always say that what is experientially encountered is a cat, or a hallucination of a cat.

Notice that some of the points Russell makes in his argument about the table cannot be made about the cat. We cannot say that the fact that the cat looks longer seen from the side than from the front ought to convince us that we infer its shape. Cats are longer than they are wide. Cats do move and change shape. How can we describe, and furthermore precisely describe, our sense data in this case? Russell has said we run into troubles being precise about the real shapes of objects. It turns out we have the same sort of trouble being precise about the apparent shape as well. Russell has it that we 'construct' the real from the apparent, the object from the sense data. But in the absence of any clear or precise way of characterizing the sense data, it seems at least as plausible to say that we give sense to the notion of sense data only by referring to a public object or physical cause. Sense data are meant to be basic, unhedged, foundational data. But if we are unable to describe them precisely (except of course with reference to objects which we see from different points of view) then it becomes moot whether they can be foundational. Russell's account does seem strikingly appropriate to the phenomenon of the animated film. The animator makes a series of carefully drawn two-dimensional figures, beginning, say, with a square and going through a series of
figures having two acute and two obtuse angles. He photographs these drawings in series and projects them on a screen. The 'reality' is a projected series of two-dimensional drawings. But we are likely to infer that what we are seeing is a table top or a film of a table top. Similarly we infer the real shapes of Donald Duck and Mickey Mouse from the series of two-dimensional drawings made at the Disney Studios. As the French film director, Jean Luc Godard said, 'Reality is twenty four frames per second.' But Godard was referring to reality in the cinema. Russell wants to make the same point about the external world.

My rebuttal is that the case of the film is parasitic upon our notion of objects, not vice versa. Thus seeing objects in animated films may validly be called cases of inferring: Donald Duck's shape is to a real object's shape as the still drawings are to glimpses of an object. But sense data are not two dimensional drawings. Reality (or objectivity) is not twenty-four sense data per second. Objects are the paradigm. We learn the shapes of objects and infer the shapes of filmed objects. To liken sense data to drawings begs the question. We may say they are real glimpses of real objects (or dreams or hallucinations of real objects). And our tendency to do so hasn't at all been weakened by Russell's argument.

If there are difficulties in describing sense data there is a certain philosophical risk identifying the family to which they belong. Let me quote Russell from The Philosophy
Phantoms and hallucinations, considered in themselves, are...on exactly the same level as ordinary sense data. They differ from ordinary sense-data only in the fact that they do not have the usual correlations with other things....

The things that we call real, like tables...are systems, series of classes of particulars and the particulars are the real things, the particulars being sense data...A table...will be a series of classes of particulars and therefore a logical fiction...

A chair presents at each moment a number of different appearances. All the appearances that it is presenting at a given moment make up a certain class. All those sets...vary from time to time....

And so when you go and buy a chair, you buy not only the appearance which it presents to you at that moment but also all those other appearances that it is going to present when it gets home. If it were a phantom chair, it would not present any appearances when it got home, and would not be the sort of thing you would want to buy. The sort one calls real is one of a whole correlated system, whereas the sort you call hallucinations are not.

Now obviously there may occur times when we wrongly identify the 'systems or series of classes of particulars' just as we may be mistaken in our judgements that what we see is a tomato. We may buy phantom chairs. It is then a strange and quixotic sort of indubitability that sense data have.

If Russell recognizes this, what virtue does he think sense data have? As he says,
One thing our technique does is to give us a means of constructing a given body of symbolic propositions with the minimum of apparatus, and every diminution in apparatus diminishes the risk of error. When I spoke about the desk and said I was not going to assume the existence of a persistent substance underlying its appearances, it is an example of the case in point. You have anyhow the successive appearances, and if you can get on without assuming the metaphysical and constant desk, you have a smaller risk of error than you had before. You would not necessarily have a smaller risk of error if you were tied down to denying the metaphysical desk.

Now I think there are several things problematic in this. First I am not convinced that built into ordinary or object language is a metaphysical assumption about substance at least in the way Russell thinks. My reservations stem partly from the analysis of the word 'real' which Russell seems to think has positive and substantial implications and which Austin has shown to be in fact negative and an excluder or adjuster. But what is perhaps more to the point is whether such metaphysical assumptions as there are in ordinary language are really any more risky or contentious than assumptions about systems of sense data and their correlations with other systems.

Perhaps most ordinary men believe in substance. But is this a necessary adjunct to speaking ordinary language? Do object terms necessarily imply substance? I am not at all convinced they do. I am sure there are a great many presuppositions built into ordinary language but I suspect they mainly concern the notion of paradigms, of the sorts of situations in which terms are to be used, of what constitutes
standard conditions for the use of terms. We teach object
terms by ostention. Our definitions never mention substance
but refer to situations and correlations with other objects.
Objects are not defined with reference to substance but vice
versa. Contrary to what might be expected object terms are
logically prior to the term substance. This would indicate
that substance just is wherever we choose to stop defining one
object or property in terms of another. Thus substance isn't
a thing but a logical stopping point. At any rate the assump­
tion that the chair I bought yesterday will go on presenting
me with the same appearances is no less metaphysical than that
the object I bought yesterday will persist in its same state
until acted upon. And finally we may argue that 'substance'
is itself a quite un-ordinary term rarely found in everyday
language.

Russell set himself the task of analyzing statements
about objects in the external world into indubitable statements
about sense data and thereby giving an account of what we
legitimately mean by the object statements minus any logically
speaking illicit or dubitable elements that we infer but cannot
verify. I argue that a fatal objection to this program is that
ordinary language has a logic of its own and it is far from
evident that this necessarily implies the illegitimate notions
Russell claims. Certainly in his argument from illusion quoted
from Problems In Philosophy he has not demonstrated the case.
FOOTNOTES - CHAPTER THREE


I. The Argument From Illusion

Ayer, Price, and Russell have claimed that the argument from illusion demonstrates that judgements about perception expressed in ordinary language are ambiguous, inconvenient, doubtful, imprecise, or embody illegitimate inferences. They concomitantly claim that sense data terminology or sense data analysis obviates all these difficulties.

I contend that they have not successfully made their case. And this is because the argument from illusion is predicated on a howler; namely that while the argument claims to show ordinary language is inadequate to some logical or philosophical requirements (often left vague as in Ayer's case where he says "I regard the alternative language of sense-data as being more suitable for my purpose," without making it clear exactly what his purpose is), in arguing from illusion or doubt or ambiguity it only shows occasions where it is contingently inadequate to its own requirements and where it might contingently be amended to meet those requirements.
Let us examine the cases one by one. First as to the alleged ambiguity of verbs like 'see' and 'touch', we note that there is no inherent or intrinsic ambiguity about 'see.' The only ambiguity arises when it is used under aberrant or non-standard conditions, say with reference to dreams, hallucinations, after images, eye examinations, optical illusions, mirrors, hypnotism, eye damage, etc., where these conditions are not specified. If we attend to conditions we may eliminate any ambiguity. The question of ambiguity arises because the use of the word 'see' implies that conditions are normal. Only if this presupposition is subverted (something we may take pains to avoid) is there any possibility of ambiguity. The case is even less strong for an alleged ambiguity of 'touch' for 'touch' is a 'public' and 'spatial' verb. It may be verified with reference to position. Either one is touching something or he is not. There is no ambiguity here. Macbeth may say he sees and touches the dagger. We may for a moment, not know what to make of 'sees' because we too must look around, look in the distance, look behind us, look where he is looking before we decide that he must be hallucinating. But we can tell at a glance that Macbeth isn't touching a dagger. His hand is nowhere near a dagger. There is no ambiguity here. His claim is false; obviously the poor man is hallucinating.

Let us consider doubt. Our perceptual judgements may be doubted. But again this is because we suspect conditions
are awry. We may hedge our judgement or we may verify conditions and allay doubt. Doubt makes sense only against a standard or doubt-free case.

There is the claim that we will run into trouble being precise in our description of, say, a table. But 'precise' is an adjuster; there is no one way of being precise. We can be as precise as we need. We run into no practical difficulties in describing objects and qualities because we tailor our descriptions and our judgement to conditions. 'I think it is a tomato,' 'It looks smooth and shiny from here.'

There is the claim that ordinary perceptual judgements will not tell us what the 'real' qualities of the table are. But this is because the word 'real' is misused in such questions as 'what is the real shape, etc.' 'Real' adjusts or re-adjusts according to some standard.

It has been suggested that we infer the shapes of objects. This strains the word 'infer.' We learn that objects have shapes. We make particular inferences about particular objects. What is implied by saying something is an object and not a dream, hallucination, picture, or reflection, is that it has a regular three-dimensional shape. At any rate we could as easily claim that we do not infer when we say 'The object is round' but make a testable claim.

The problem is that what the argument from illusion shows to be ambiguous, doubtful, imprecise, inferential about ordinary language, a careful examination of the 'illusion'
in question can clear up. The argument from illusion must logically contain the seeds of its own refutation. The difficulty may be likened to a difficulty in teaching languages. If I am bilingual and you are monolingual I can teach you my second language in two ways. I can do so by ostention, by giving you examples. Or I can teach you by giving you translations from our common language. If I choose, or am forced, to take the latter course then no matter how rich in vocabulary the second language is or how much finer its distinctions are, I will not be able to teach you anything that cannot be said in our common language. We would be forever bound by the limitations of our common language. So it is with the argument from illusion. It is forever bound by its own limitations. There cannot be doubt without doubt-free cases, there cannot be illusion without veridicality, there cannot be ambiguity without clarity, illegitimate inferences without legitimate inferences, etc., etc.

The argument from illusion is dependent upon the construction of a causal chain involving the presence of replicas, reflections, hallucinations, isolated glimpses, and upon keeping us in the dark about part of the chain (i.e. dependent upon keeping us ignorant of the fact that we are looking in a mirror, at a wax replica, that we have been hypnotized, are hallucinating, etc.). The argument is parasitic upon the notion of a veridical state of affairs about which we may be mistaken. Therefore the most the argument
can show is that under some conditions we may be mistaken. But it must argue essentially from analogy that just as we know what it is to be mistaken under some conditions, perhaps we might be mistaken under present conditions. As an argument from analogy it is invalid without independent evidence.

Let us consider again Russell's argument about the supposedly delusive 'real' shape of the table. We have a scientific explanation, in terms of geometrical optics, that accounts, in part, for the phenomenon of seeing a table. Geometrical optics as a theory of physics allows us to formulate questions and hypotheses about optical phenomena. It gives an explanation, under the usual scientific rubric of principles, observations, hypotheses, predictions, etc., etc., of how and why we do not receive the same visual appearance when we look at a table from different points of view. Assuming the table has a shape and that light travels in a straight line we can explain why the table does not present us with the same visual appearance no matter where we stand when we look at it. We can predict what the sensabilia caused by the table will be like. We can, then, hardly argue from the fact that it does present us with different appearances is destructive of the assumption that it has a 'real' shape. Russell I think would be quick to argue that the assumption that the table has a 'real' shape is legitimate only when considered as a logical construction of the appearances we receive. But this doesn't necessarily follow. It is no more
likely than that the appearances of the table logically result only from the shape of the table and the principles of geometrical optics. Certainly the argument from illusion does nothing to support Russell's conclusion because the argument is wholly consistent with the physical theory of an object and geometrical optics. The argument from illusion cannot get 'outside' physics to damage physical explanations. Suppose for example I take a series of photographs of my table from different positions about the room. The pictures when I develop them will be consistent with the theory of geometrical optics. If I scissor around the outline of the surface of the table I will be left with a number of incongruently trapezoidal shapes. But I cannot from this fact argue that we do not see the real shape of the table.

The argument from illusion creates no problems for ordinary language that ordinary language, if full attention is paid to all its conventions and presuppositions, cannot solve. The mere fact that we may be mistaken in our ordinary expression of perceptual judgements does not rule out ordinary language as useful for 'philosophizing about perception.' It does illustrate that, since we may be mistaken, we ought to take special care either to ensure we are not, in the case at hand, mistaken, or if we cannot handily ensure it to hedge our claim.
II. The Foundations of Empirical Knowledge

This concluding section may seem a case of the poacher turned gamekeeper. I have been very critical of the sense data programs that I have considered but only because I do not feel the argument from illusion supports these programs or even provides good motivation for them.

I have argued that the argument from illusion is essentially an argument from doubt and from corrigibility. It attempts to show that perceptual judgements can be doubted and hence that statements embodying judgements about perception are corrigible. However, it also holds that there is something which is indubitable about perceptual judgements. It attempts to move us from doubtful ground to safe, indubitable ground, from risky, corrigible statements to safe, incorrigible ones.

I have been critical of this argument largely on the grounds that it requires some fixed point on which to base its essential doubt. I have argued that ordinary language, in presupposing standard cases and standard conditions, supplies the fixed point necessary for the argument from illusion. My conclusion is that since ordinary language embodies a necessary step in the argument, then it would be crudely illogical to maintain that the argument demonstrates that ordinary language is unsatisfactory for philosophical purposes.

The notion of standard conditions is central to my argument. But I do not believe that it is essential that
any particular conditions form the standard conditions.
I have argued that the logical structure of the language entails that conditions be taken as standard. But it does not stipulate which conditions we shall take. Our ordinary language reflects the conditions of our perceptual apparatus, of the external conditions which act as causal factors in our perception, and our interests and needs, in the choice of conditions we presently take as standard. But what, I now wish to ask, would occur if any of these factors suffered significant change? Our perceptual judgements and our language would accommodate themselves to the world there is no doubt. But what would be common to the accommodation that our perceptual judgements and language presently make to the world and to the accommodation it might make if conditions of the world changed? What would be foundational to empirical knowledge under both conditions? I argue that there is a good case for taking sense data as foundational. Let me make the case.

What do we understand by the term 'empirical knowledge'? I think we usually understand by it the awareness that certain propositional expressions of facts about the world are true. To put it another way we are in possession of empirical knowledge when we know that certain empirical statements, by nature contingent, are in fact true. Empirical statements are contingent statements about the world. They may be particular, 'The water is boiling,' or universal,
'Water boils at 212° F, at sea level.' Put concisely empirical knowledge consists of believing empirical statements to be true when they are true and we have evidence of their truth.

Our knowledge about, for example, tomatoes is empirical knowledge. We know that they are a fruit of South American origin. We know their size, color, texture, taste; we know they are edible, how to cook them, how to preserve them; we know their growing conditions, what soil, temperature, amounts of water they require; we know what adverse conditions affect them and how; we know that there are different species and we know their characteristics. We are in possession of a great deal of knowledge about tomatoes and it is for the most part empirical knowledge.

Now what are we to understand by the term 'foundations of empirical knowledge'? It might be thought that this is a question easily answered; there are objects, there is behavior, there are hypotheses to be formed and tested about the two. There are tomatoes, and there are the hypotheses botanists and gardeners and cooks have formed and tested about them. But in a general way all these factors are the matter of considerable philosophic dispute.

Probably the most basic dispute concerns the language of perception. Botanists and gardeners and cooks have named tomatoes and refer to them by name. They have observed them growing or cooking and they have formulated some hypotheses and arrived at conclusions about them. They express facts
about tomatoes in sentences and they use sentences in our language to convey information about tomatoes. Now considering the large body of information we have about tomatoes we naturally suppose our language to be adequate to our needs. And, we may note, botanists, gardeners, and cooks are generally unconcerned about the analysis of object words, of perceptual claims, of the relation of predicates to objects, etc., etc.

Philosophers however have been concerned to give an analysis of object terms such as 'tomato' primarily because they have noticed that certain predicates normally ascribed to tomatoes, 'red', 'round', 'sweet', etc., seem to be dependent upon the conditions under which the tomato is perceived or upon conditions of the sensory apparatus of the perceiver. Thus, although we describe tomatoes as red, if we were to alter light conditions or sensory conditions we would describe them as something else. We describe them as tasty or edible but if our taste buds were altered in a certain way so that tomatoes nauseated us or made us gag, we would describe them as vile or inedible. This sort of argument can be applied to all the predicates normally ascribed to tomatoes.

Now the conclusion some philosophers have drawn is this that although we claim to have empirical knowledge about tomatoes under our present conditions (ie. that they are red, sweet, etc.) and we would claim to have empirical knowledge about them if conditions of perception were changed in some uniform way (eg. that red light rays are filtered out or our
taste buds are altered so that we would describe tomatoes as, say, blue and sour) we cannot take as foundational to either instance of knowledge anything but the description of our sense content. That is, the foundation of our present empirical knowledge about tomatoes is simply the calculus of our sense content when and if we perceive tomatoes. However if conditions of perception were to change in some uniform way that would allow us to make a significant number of true propositional statements about tomatoes, then the foundations of our altered empirical knowledge about tomatoes would be the calculus of our sense content when and if we perceive tomatoes under the altered conditions.

At present I know tomatoes are red. In part at least this means that the statement 'tomatoes are red' is a true statement. It is true because the word 'red' is the name given to one aspect of my sense content when and if I perceive tomatoes. Indeed, the word 'red' is taught by pointing at such things as tomatoes and saying 'red' making sure our pupil understands that we mean the color, not the shape or the texture, or that he understands we aren't naming the object. Under altered conditions of perception, say if red light waves disappeared from the spectrum, tomatoes might look blue. We might, for a short while, say 'Tomatoes are red but they look blue now.' But it would only be for a very short while. (We would probably use the expression only as a hedge against conditions changing again, red light waves re-appearing).
We would, if conditions did not undergo any further change, soon say that tomatoes were blue. The statement 'Tomatoes are blue' would be true if the word 'blue' was the name given to the color aspect of our sense content if and when we perceived tomatoes. It would take a very short while for us to discover, by ostention, that our collective sense content was the same. Thus the foundations of empirical knowledge are the content of our sensory experience and the names we have given to different aspects of that content (shape, color, taste, etc.) under certain conditions taken as standard.

Now it will be noted that this conclusion has been reached without reference to any supposed illusion inherent in perception. It has been reached without taking particular conditions as standard. It does not suggest that qualities of objects or objects themselves are 'unreal.' It does not rely on qualitative indistinguishability of veridical and delusive cases. The argument is more akin to a phenomenological reduction than the argument from illusion. It simply attends to the names we give to our sensory content when we perceive things in the world. As conditions of perception (internal or external) differ the names we give to our sensory content will differ. Consequently our empirical knowledge will differ as well. We will be able to make true empirical statements about things in the world. But they are not the same true statements as would be made under other conditions of perception.
One of the consequences of this notion that the foundations of empirical knowledge are intimately connected with the conditions of perception is that none of the distinctions we make within our language necessarily disappears.

Tomatoes presently are red but may look blue under some condition. However if there should be some change in the way light rays affect us we might well come to call tomatoes blue. We might well find ourselves in a condition whereby we should say that tomatoes are blue but they look red under some conditions.

The use of locutions such as 'looks', 'seems', 'appears', implies that we have a standard by which we judge other cases. We know what a standard case of red is, we say something looks red when it resembles the standard case but we aren't sure if it is a standard case, when something has led us to hedge our claim.

The question of which case to take as standard is, on my account, a contingent one.

The upshot of my argument is that there is a valid foundational sense data program. The point, however, is that it has little utility. Ordinary language is intimately linked to conditions that now obtain, to our actual interests. It does its job admirably well. A sense data program cannot be made at the expense of ordinary language. But a phenomenological examination of perceptual judgement may indicate that we need not necessarily maintain that our ordinary perceptual
judgements give us the last word in perceptual philosophy. We are of course philosophically interested in the logical structure of our language. And we are empirically interested in the perceptual conditions that presently obtain and the judgements that we do make. But the foundational sense data program I have outlined may have the philosophic virtue of forcing us to admit that our overriding philosophical concern ought to be with linguistic mechanisms, such as the presuppositions of standard conditions or the mechanism of standard and adjusted case, and not with any particular instance of the mechanism, any particular condition. Our empirical interest is with the structure of the world as we perceive it. Our philosophical interest is with the logical structure of the world. I conclude that all the problems of perceptual philosophy can be handled by ordinary language. And this leaves sense data in an anomalous position. They have no work to do. They constitute the foundations of empirical knowledge. But particular empirical knowledge will be expressed with respect to particular conditions. The sense data program is somewhat akin to saying that although we now speak English, we could, if historical conditions had been different, be speaking French. While this is true enough, it is of little significance, for if we actually want to say anything we use one language or the other and our real concern will be with the syntax of the language we use.
Ultimately then I conclude that a sense data program however valid is unnecessary for the purpose its proponents have suggested.
FOOTNOTES - CHAPTER FOUR

BIBLIOGRAPHY


