

EMPIRICISM AND THE PHILOSOPHY OF MIND

Wilfrid Sellars

Edited in Hypertext by Andrew Chrucky, 1995.

Note: This paper was first presented as the University of London Special Lectures on Philosophy for 1955-56, delivered on March 1, 8, and 15, 1956, under the title "The Myth of the Given: Three Lectures on Empiricism and the Philosophy of Mind."

Reproduced with the permission of the University of Minnesota Press from: Wilfrid Sellars, "Empiricism and the Philosophy of Mind," in Herbert Feigl and Michael Scriven, eds., *Minnesota Studies in the Philosophy of Science, Volume I: The Foundations of Science and the Concepts of Psychology and Psychoanalysis* (University of Minnesota Press, 1956), pp. 253-329. When the essay was reprinted in Wilfrid Sellars, *Science, Perception and Reality* (London: Routledge & Kegan Paul, 1963, pp 127-196), Sellars added a few notes which have been incorporated into the present version. I should also add that in the reprint British spelling was used. Republished as a separate book, *Empiricism and the Philosophy of Mind*, with an introduction by Richard Rorty and a study guide by Robert Brandom (Cambridge, Mass.: Harvard University Press, 1997). Republished in Willem deVries and Timm Triplett, *Knowledge, Mind, and the Given: A Reading of Sellars' "Empiricism and the Philosophy of Mind"* (Indianapolis, IN: Hackett Pub., 2000). French translation *Empirisme et philosophie de l'esprit* (Combas (France): l'Eclat, 1992).

(This version follows the pagination found in Wilfrid Sellars, *Science, Perception and Reality* (London: Routledge & Kegan Paul, 1963, pp.127-196.)

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I. AN AMBIGUITY IN SENSE-DATUM THEORIES

I PRESUME that no philosopher who has attacked the philosophical idea of givenness or, to use the Hegelian term, immediacy has intended to deny that there is a difference between *inferring* that something is the case and, for example, *seeing* it to be the case. If the term "given" referred merely to what is observed as being observed, or, perhaps, to a proper subset of the things we are said to determine by observation, the existence of "data" would be as noncontroversial as the existence of philosophical perplexities. But, of course, this just is not so. The phrase "the given" as a piece of professional -- epistemological -- shoptalk carries a substantial theoretical commitment, and one can deny that there are "data" or that anything is, in this sense, "given" without flying in the face of reason.

Many things have been said to be "given": sense contents, material objects, universals, propositions, real connections, first principles, even givenness itself. And there is, indeed, a certain way of construing the situations which philosophers analyze in these terms which can be said to be the framework of givenness. This framework has been a common feature of most of the major systems of philosophy, including, to use a Kantian turn of phrase, both "dogmatic rationalism" and "skeptical empiricism". It has, indeed, been so pervasive that few, if any, philosophers have been altogether free of it; certainly not Kant, and, I would argue, not even Hegel, that great foe of "immediacy". Often what is attacked under its name are only specific varieties of "given." Intuited first principles and synthetic necessary connections were the first to come under attack. And many who today attack "the whole idea of givenness" -- and they are an increasing number -- are really only attacking sense data. For they transfer to other items, say physical objects or relations of appearing, the characteristic features

of the "given." If, however, I begin my argument with an attack on sense-datum theories, it is only as a first step in a general critique of the entire framework of givenness.

2. Sense-datum theories characteristically distinguish between an act of awareness and, for example, the color patch which is its *object*. The act is usually called *sensing*. Classical exponents of the theory have often characterized these acts as "phenomenologically simple" and "not further analyzable." But other sense-datum theorists -- some of them with an equal claim to be considered "classical exponents" -- have held that sensing is analyzable. And if some philosophers seem to have thought that if sensing is analyzable, then it cannot be an *act*, this has by no means been the general opinion. There are, indeed, deeper roots for the doubt that sensing (if there is such a thing) is an act, roots which can be traced to one of two lines of thought tangled together in classical sense-datum theory. For the moment, however, I shall simply assume that however complex (or simple) the fact that x is sensed may be, it has the form, whatever exactly it may be, by virtue of which for x to be sensed is for it to be the object of an act.

Being a sense datum, or *sensum*, is a relational property of the item that is sensed. To refer to an item which is sensed in a way which does not entail that it is sensed, it is necessary to use some other locution. *Sensibile* has the disadvantage that it implies that sensed items could exist without being sensed, and this is a matter of controversy among sense-datum theorists. *Sense content* is, perhaps, as neutral a term as any.

There appear to be varieties of sensing, referred to by some as *visual sensing*, *tactual sensing*, etc., and by others as *directly seeing*, *directly hearing*, etc. But it is not clear whether these are species of sensing in any full-blooded sense, or whether "x is visually sensed" amounts to no more than "x is a color patch which is sensed," "x is directly heard" than "x is a sound which is sensed" and so on. In the latter case, being a *visual sensing* or a *direct hearing* would be a relational property of an act of sensing, just as being a sense datum is a relational property of a sense content.

3. Now if we bear in mind that the point of the epistemological category of the given is, presumably, to explicate the idea that empirical knowledge rests on a 'foundation' of non-inferential knowledge of matter of fact, we may well experience a feeling of surprise on noting that according to sense-datum theorists, it is *particulars* that are sensed. For what is *known* even in non-inferential knowledge, is *facts* rather than particulars, items of the form *something's being thus-and-so* or *something's standing in a certain relation to something else*. It would seem, then, that the sensing of sense contents *cannot* constitute knowledge, inferential or non-inferential; and if so, we may well ask,

what light does the concept of a sense datum throw on the 'foundations of empirical knowledge?' The sense-datum theorist, it would seem, must choose between saying:

It is *particulars* which are sensed. Sensing is not knowing. The existence of sense data does not *logically* imply the existence of knowledge.

or

Sensing *is* a form of knowing. It is *facts* rather than *particulars* which are sensed.

On alternative (a) the fact that a sense content was sensed would be a *non-epistemic* fact about the sense content. Yet it would be hasty to conclude that this alternative precludes *any* logical connection between the sensing of sense contents and the possession of non-inferential knowledge. For even if the sensing of sense contents did not logically imply the existence of non-inferential knowledge, the converse might well be true. Thus, the non-inferential knowledge of particular matter of fact might logically imply the existence of sense data (for example, *seeing that a certain physical object is red* might logically imply *sensing a red sense content*) even though the sensing of a red sense content were not itself a cognitive fact and did not imply the possession of non-inferential knowledge.

On the second alternative, (b), the sensing of sense contents would logically imply the existence of non-inferential knowledge for the simple reason that it would *be* this knowledge. But, once again, it would be facts rather than particulars which are sensed.

4. Now it might seem that when confronted by this choice, the sense-datum theorist seeks to have his cake and eat it. For he characteristically insists *both* that sensing is a knowing *and* that it is particulars which are sensed. Yet his position is by no means as hopeless as this formulation suggests. For the 'having' and the 'eating' *can* be combined without logical nonsense provided that he uses the word *know* and, correspondingly, the word *given* in two senses. He must say something like the following:

The non-inferential knowing on which our world picture rests is the knowing that certain items, e.g. red sense contents, are of a certain character, e.g. red. When such a fact is non-inferentially known about a sense content, I will say that the sense content is sensed *as being*, e.g. *red*. I will then say that a sense content is *sensed* (full stop) if it is *sensed as being* of a certain character, e.g. red. Finally, I will say of a sense content that it is *known* if it is sensed (full stop), to emphasize that sensing is a *cognitive* or *epistemic* fact.

Notice that, given these stipulations, it is logically necessary that if a sense content be *sensed*, it be *sensed as being of a certain character*, and that if it be *sensed as being of a certain character*, the *fact that it is*

of this character be *non-inferentially known*. Notice also that the being sensed of a sense content would be *knowledge* only in a stipulated sense of *know*. To say of a *sense content* -- a color patch, for example -- that it was 'known' would be to say that *some fact about it* was non-inferentially known, e.g. that it was red. This *stipulated* use of *know* would, however, receive aid and comfort from the fact there is, in ordinary usage, a sense of *know* in which it is followed by a noun or descriptive phrase which refers to a particular, thus

Do you know John?

Do you know the President?

Because these questions are equivalent to "Are you acquainted with John?" and "Are you acquainted with the President?" the phrase "knowledge by acquaintance" recommends itself as a useful metaphor for this stipulated sense of *know* and, like other useful metaphors, has congealed into a technical term.

5. We have seen that the fact that a sense content is a *datum* (if, indeed, there are such facts) will logically imply that someone has non-inferential knowledge *only* if to say that a sense content is given is contextually defined in terms of non-inferential knowledge of a fact about this sense content. If this is not clearly realized or held in mind, sense-datum theorists may come to think of the givenness of sense contents as the *basic* or *primitive* concept of the sense-datum framework, and thus sever the logical connection between sense data and non-inferential knowledge to which the classical form of the theory is committed. This brings us face to face with the fact that in spite of the above considerations, many if not most sense-datum theorists *have* thought of the givenness of sense contents as the basic notion of the sense-datum framework. What, then, of the logical connection in the direction *sensing sense contents* --> *having non-inferential knowledge*? Clearly it is severed by those who think of sensing as a unique and unanalyzable act. Those, on the other hand, who conceive of sensing as an *analyzable* fact, while they have *prima facie* severed this connection (by taking the sensing of sense contents to be the basic concept of the sense-datum framework), will nevertheless, in a sense, have maintained it, if the result they get by analyzing *x is a red sense datum* turns out to be the same as the result they get when they analyze *x is non-inferentially known to be red*. The entailment which was thrown out the front door would have sneaked in by the back.

It is interesting to note, in this connection, that those who, in the classical period of sense-datum theories, say from Moore's "Refutation of Idealism" until about 1938, analyzed or sketched an analysis of sensing, did so in *non-epistemic* terms. Typically it was held that for a sense content to be sensed is for it to be an element in a certain

kind of relational array of sense contents, where the relations which constitute the array are such relations as spatiotemporal juxtaposition (or overlapping), constant conjunction, mnemonic causation -- even real connection and belonging to a self. There is, however, one class of terms which is conspicuous by its absence, namely *cognitive* terms. For these, like the 'sensing' which was under analysis, were taken to belong to a higher level of complexity.

Now the idea that epistemic facts can be analyzed without remainder -- even "in principle" -- into non-epistemic facts, whether phenomenological or behavioral, public or private, with no matter how lavish a sprinkling of subjunctives and hypotheticals is, I believe, a radical mistake -- a mistake of a piece with the so-called "naturalistic fallacy" in ethics. I shall not, however, press this point for the moment, though it will be a central theme in a later stage of my argument. What I do want to stress is that whether classical sense-datum philosophers have conceived of the givenness of sense contents as analyzable in non-epistemic terms, or as constituted by acts which are somehow both irreducible *and* knowings, they have without exception taken them to be fundamental in another sense.

6. For they have taken givenness to be a fact which presupposes no learning, no forming of associations, no setting up of stimulus-response connections. In short, they have tended to equate *sensing sense contents* with *being conscious*, as a person who has been hit on the head is *not* conscious, whereas a new-born babe, alive and kicking, *is* conscious. They would admit, of course, that the ability to know that a *person*, namely oneself, is *now*, at a certain time, feeling a pain, *is* acquired and does presuppose a (complicated) process of concept formation. But, they would insist, to suppose that the simple ability to *feel a pain* or *see a color*, in short, to sense sense contents, is *acquired* and involves a process of concept formation, would be very odd indeed.

But if a sense-datum philosopher takes the ability to sense sense contents to be unacquired, he is clearly precluded from offering an analysis of *x senses a sense content* which presupposes acquired abilities. It follows that he could analyze *x senses red sense content s* as *x non-inferentially knows that s is red* only if he is prepared to admit that the ability to have such non-inferential knowledge as that, for example, a red sense content is red, is itself unacquired. And this brings us face to face with the fact that most empirically minded philosophers are strongly inclined to think all classificatory consciousness, all knowledge *that something is thus-and-so*, or, in logicians' jargon, all subsumption of particulars under universals, involves learning, concept formation, even the use of symbols. It is clear from the above analysis, therefore, that *classical* sense-datum theories -- I

emphasize the adjective, for there are other, 'heterodox,' sense-datum theories to be taken into account -- are confronted by an inconsistent triad made up of the following three propositions:

- A. x senses red sense content s entails x non-inferentially knows that s is red.
- B. The ability to sense sense contents is unacquired.
- C. The ability to know facts of the form x is ϕ is acquired.

A and B together entail not-C; B and C entail not-A; A and C entail not-B.

Once the classical sense-datum theorist faces up to the fact that A, B, and C do form an inconsistent triad, which of them will he choose to abandon?

He can abandon A, in which case the sensing of sense contents becomes a noncognitive fact -- a noncognitive fact, to be sure which may be a necessary condition, even a *logically* necessary condition, of non-inferential knowledge, but a fact, nevertheless, which cannot *constitute* this knowledge.

He can abandon B, in which case he must pay the price of cutting off the concept of a sense datum from its connection with our ordinary talk about sensations, feelings, afterimages, tickles and itches, etc., which are usually thought by sense-datum theorists to be its common sense counterparts.

But to abandon C is to do violence to the predominantly nominalistic proclivities of the empiricist tradition.

7. It certainly begins to look as though the classical concept of a sense datum were a mongrel resulting from a crossbreeding of two ideas:

The idea that there are certain inner episodes -- e.g. sensations of red or C# which can occur to human beings (and brutes) without any prior process of learning or concept formation; and without which it would *in some sense* be impossible to *see*, for example, that the facing surface of a physical object is red and triangular, or *hear* that a certain physical sound is C#.

The idea that there are certain inner episodes which are non-inferential knowings that certain items are, for example, red or C#; and that these episodes are the necessary conditions of empirical knowledge as providing the evidence for all other empirical propositions.

And I think that once we are on the lookout for them, it is quite easy to see how these two ideas came to be blended together in traditional epistemology. The *first* idea clearly arises in the attempt to explain

the facts of sense perception in scientific style. How does it happen that people can have the experience which they describe by saying "It is as though I were seeing a red and triangular physical object" when either there is no physical object there at all, or, if there is, it is neither red nor triangular? The explanation, roughly, posits that in every case in which a person has an experience of this kind, whether veridical or not, he has what is called a 'sensation' or 'impression' of a red triangle.' The core idea is that the proximate cause of such a sensation is *only for the most part* brought about by the presence in the neighborhood of the perceiver of a red and triangular physical object; and that while a baby, say, can have the 'sensation of a red triangle' without either *seeing* or *seeming to see that the facing side of a physical object is red and triangular*, there usually *looks*, to adults, *to be* a physical object with a red and triangular facing surface, when they are caused to have a 'sensation of a red triangle'; while *without* such a sensation, no such experience can be had.

I shall have a great deal more to say about this kind of 'explanation' of perceptual situations in the course of my argument. What I want to emphasize for the moment, however, is that, as far as the above formulation goes, there is no reason to suppose that having the sensation of a red triangle is a *cognitive* or *epistemic* fact. There is, of course, a temptation to assimilate "having a sensation of a red triangle" to "thinking of a celestial city" and to attribute to the former the epistemic character, the 'intentionality' of the latter. But this temptation *could* be resisted, and it *could* be held that having a sensation of a red triangle is a fact *sui generis*, neither epistemic nor physical, having its own logical grammar. Unfortunately, the idea that there are such things as sensations of red triangles -- in itself, as we shall see, quite legitimate, though not without its puzzles -- seems to fit the requirements of another, and less fortunate, line of thought so well that it has almost invariably been distorted to give the latter a reinforcement without which it would long ago have collapsed. This unfortunate, but familiar, line of thought runs as follows:

The seeing that the facing surface of a physical object is red and triangular is a *veridical* member of a class of experiences -- let us call them 'ostensible seeings' -- some of the members of which are non-veridical; and there is no inspectible hallmark which guarantees that *any* such experience is veridical. To suppose that the non-inferential knowledge on which our world picture rests consists of such ostensible seeings, hearings, etc., as *happen* to be veridical is to place empirical knowledge on too precarious a footing -- indeed, to open the door to skepticism by making a mockery of the word *knowledge* in the phrase "empirical knowledge."

Now it is, of course, possible to delimit subclasses of ostensible

seeings, hearings, etc., which are progressively less precarious, i.e. more reliable, by specifying the circumstances in which they occur, and the vigilance of the perceiver. But the possibility that any given ostensible seeing, hearing, etc., is non-veridical can never be entirely eliminated. Therefore, given that the foundation of empirical *knowledge* cannot consist of the veridical members of a class not all the members of which are veridical, and from which the non-veridical members cannot be weeded out by 'inspection,' this foundation cannot consist of such items as *seeing that the facing surface of a physical object is red and triangular*.

Thus baldly put, scarcely anyone would accept this conclusion. Rather they would take the contrapositive of the argument, and reason that *since* the foundation of empirical knowledge *is* the non-inferential knowledge of such facts, it *does* consist of members of a class which contains non-veridical members. But before it is thus baldly put, it gets tangled up with the first line of thought. The idea springs to mind that *sensations of red triangles* have exactly the virtues which *ostensible seeings of red triangular physical surfaces* lack. To begin with, the grammatical similarity of 'sensation of a red triangle' to "thought of a celestial city" is interpreted to mean, or, better, gives rise to the presupposition, that *sensations* belong to the same general pigeonhole as *thoughts* -- in short, are cognitive facts. Then, it is noticed that sensations are *ex hypothesi* far more intimately related to mental processes than external physical objects. It would seem easier to "get at" a red triangle of which we are having a sensation, than to "get at" a red and triangular physical surface. But, above all, it is the fact that it *doesn't make sense* to speak of unveridical sensations which strikes these philosophers, though for it to strike them as it does, they must overlook the fact that if it makes sense to speak of an experience as *veridical* it must correspondingly make sense to speak of it as *unveridical*. Let me emphasize that not *all* sense-datum theorists -- even of the classical type -- have been guilty of *all* these confusions; nor are these *all* the confusions of which sense-datum theorists have been guilty. I shall have more to say on this topic later. But the confusions I have mentioned are central to the tradition, and will serve my present purpose. For the upshot of blending all these ingredients together is the idea that a sensation of a red triangle is the very paradigm of empirical knowledge. And I think that it can readily be seen that this ideal leads straight to the orthodox type of sense-datum theory and accounts for the perplexities which arise when one tries to think it through.

II. ANOTHER LANGUAGE?

8. I shall now examine briefly a heterodox suggestion by, for example, Ayer {1} to the effect that discourse about sense data is, so to speak, another language, a language contrived by the epistemologist, for the situations which the plain man describes by means of such locutions as "Now the book looks green to me" and "There seems to be a red and triangular object over there." The core of this suggestion is the idea that the vocabulary of sense data embodies no increase in the content of descriptive discourse, as over and against the plain man's language of physical objects in Space and Time, and the properties they have and appear to have. For it holds that sentences of the form

X presents S with a f sense datum

are simply *stipulated* to have the same force as sentences of the form

X looks f to S.

Thus "The tomato presents S with a bulgy red sense-datum" would be the contrived counterpart of "The tomato looks red and bulgy to S" and would mean exactly what the latter means for the simple reason that it was stipulated to do so.

As an aid to explicating this suggestion, I am going to make use of a certain picture. I am going to start with the idea of a code, and I am going to enrich this notion until the codes I am talking about are no longer *mere* codes. Whether one wants to call these "enriched codes" codes at all is a matter which I shall not attempt to decide.

Now a code, in the sense in which I shall use the term, is a system of symbols each of which represents a complete sentence. Thus, as we initially view the situation, there are two characteristic features of a code: (1) Each code symbol is a unit; the parts of a code symbol are not themselves code symbols. (2) Such logical relations as obtain among code symbols are completely parasitical; they derive entirely from logical relations among the sentences they represent. Indeed, to speak about logical relations among code symbols is a way of talking which is introduced in terms of the logical relations among the sentences they represent. Thus, if "O" stands for "Everybody on board is sick" and "D" for "Somebody on board is sick", then "D" would follow from "O" in the sense that the sentence represented by "D" follows from the sentence represented by "O."

Let me begin to modify this austere conception of a code. There is no reason why a code symbol might not have parts which, without

{1}. Ayer, A.J. *Foundations of Empirical Knowledge*. London: Macmillan, 1940, and "The Terminology of Sense Data" in *Philosophical Essays*, pp. 66-104. London: Macmillan, 1954. Also in *Mind*, 54, 1945, pp. 289-312.

becoming full-fledged symbols on their own, do play a role in the system. Thus they might play the role of *mnemonic devices* serving to put us in mind of features of the sentences represented by the symbols of which they are parts. For example, the code symbol for "Someone on board is sick" might contain the letter S to remind us of the word "sick," and, perhaps, the reversed letter E to remind those of us who have a background in logic of the word "someone." Thus, the flag for "Someone on board is sick" might be '[reversed E]S.' Now the suggestion at which I am obviously driving is that someone might introduce so-called sense-datum sentences as code symbols or "flags," and introduce the vocables and printables they contain to serve the role of reminding us of certain features of the sentences in ordinary perceptual discourse which the flags as wholes represent. In particular, the role of the vocable or printable "sense datum" would be that of indicating that the symbolized sentence contains the context "...looks ...," the vocable or printable "red" that the correlated sentence contains the context "...looks red..." and so on.

9. Now to take this conception of sense-datum 'sentences' seriously is, of course, to take seriously the idea that there are no independent logical relations between sense-datum 'sentences.' It *looks* as though there were such independent logical relations, for these 'sentences' look like *sentences*, and they have as proper parts vocables or printables which function *in ordinary usage* as *logical words*. Certainly if sense-datum talk is a code, it is a code which is easily mistaken for a language proper. Let me illustrate. At first sight it certainly seems that

A. The tomato presents S with a red sense datum

entails both

B. There are red sense data

and

C. The tomato presents S with a sense datum which has some specific shade of red.

This, however, on the kind of view I am considering, would be a mistake. (B) would follow -- even in the inverted commas sense of 'follows' appropriate to code symbols -- from (A) only because (B) is the flag for b, "Something looks red to somebody," which *does* follow from a, "The tomato looks red to Jones" which is represented in the code by (A). And (C) would 'follow' from (A), in spite of appearances, only if (C) were the flag for a *sentence* which *follows* from a.

I shall have more to say about this example in a moment. The point to be stressed now is that to carry out this view consistently one must

deny to such vocables and printables as "quality," "is," "red," "color," "crimson," "determinable," "determinate," "all," "some," "exists," etc., etc., *as they occur in sense-datum talk*, the full-blooded status of their counterparts in ordinary usage. They are rather *clues* which serve to remind us which sense-datum 'flag' it would be proper to fly along with which other sense-datum 'flags'. Thus, the vocables which make up the two 'flags'

(D) All sense data are red

and

(E) Some sense data are not red

remind us of the genuine logical incompatibility between, for example,

(F) All elephants are grey

and

(G) Some elephants are not grey,

and serve, therefore, as a clue to the impropriety of flying these two 'flags' together. For the sentences they symbolize are, presumably,

(d) Everything looks red to everybody

and

(e) There is a color other than red which something looks to somebody to have,

and these *are* incompatible.

But one would have to be cautious in using these clues. Thus, from the fact that it is proper to infer

(H) Some elephants have a determinate shade of pink

from

(I) Some elephants are pink

it would clearly be a mistake to infer that the right to fly

(K) Some sense data are pink

carries with it the right to fly

(L) Some sense data have a determinate shade of pink.

9. But if sense-datum sentences are really sense-datum 'sentences' -- i.e. code flags -- it follows, of course, that sense-datum talk neither *clarifies* nor *explains* facts of the form *x looks f to S* or *x is f*. That it would appear to do so would be because it would take an almost superhuman effort to keep from taking the vocables and printables

which occur in the code (and let me now add to our earlier list the vocable "directly known") to be *words* which, if homonyms of words in ordinary usage, have their ordinary sense, and which, if invented, have a meaning specified by their relation to the others. One would be constantly tempted, that is, to treat sense-datum flags as though they were sentences in a *theory*, and sense-datum talk as a *language* which gets its use by coordinating sense-datum sentences with sentences in ordinary perception talk, *as molecule talk gets its use by coordinating sentences about populations of molecules with talk about the pressure of gases on the walls of their containers*. After all,

(x looks red to S) \equiv (there is a class of red sense data which belong to x, and are sensed by S)

has at least a superficial resemblance to

(g exerts pressure on w) \equiv (there is a class of molecules which make up g, and which are bouncing off w)

a resemblance which becomes even more striking once it is granted that the former is not an *analysis* of *x looks red to S* in terms of sense-data.

There is, therefore, reason to believe that it is the fact that both codes and theories are contrived systems which are under the control of the language with which they are coordinated, which has given aid and comfort to the idea that sense-datum talk is "another language" for ordinary discourse about perception. Yet although the logical relations between sentences in a theoretical language are, in an important sense, under the control of logical relations between sentences in the observation language, nevertheless, within the framework of this control, the theoretical language has an *autonomy* which contradicts the very idea of a code. If this essential difference between theories and codes is overlooked, one may be tempted to try to eat his cake and have it. By thinking of sense-datum talk as *merely another language*, one draws on the fact that codes have no surplus value. By thinking of sense-datum talk as *illuminating* the "language of appearing" one draws on the fact that theoretic languages, though *contrived*, and depending for their meaningfulness on a coordination with the language of observation, have an explanatory function. Unfortunately, these two characteristics are incompatible; for it is just because theories have "surplus value" that they can provide explanations.

No one, of course, who thinks -- as, for example, does Ayer -- of the existence of sense data as entailing the existence of "direct knowledge," would wish to say that sense *data* are theoretical entities. It could

scarcely be a theoretical fact that I am directly knowing that a certain sense content is red. On the other hand, the idea that sense *contents* are theoretical entities is not *obviously* absurd -- so absurd as to preclude the above interpretation of the plausibility of the "another-language" approach. For even those who introduce the expression "sense content" by means of the context "...is directly known to be..." may fail to keep this fact in mind when putting this expression to use -- for example, by developing the idea that physical objects and persons alike are patterns of sense contents. In such a specific context, it is possible to forget that sense *contents*, thus introduced, are essentially sense *data* and not merely items which exemplify sense qualities. Indeed, one may even lapse into thinking of the *sensing* of sense contents, the givenness of sense *data*, as *non-epistemic* facts.

I think it fair to say that those who offer the "another-language" interpretation of sense data find the illumination it provides to consist primarily in the fact that in the language of sense data, physical objects are patterns of sense contents, so that, viewed in this framework, there is no "iron curtain" between the knowing mind and the physical world. It is to elaborating plausible (if schematic) translations of physical-object statements into statements about sense contents, rather than to spelling out the force of such sentences as "Sense content *s* is directly known to be red," that the greater part of their philosophical ingenuity has been directed.

However this may be, one thing can be said with confidence. If the language of sense data *were* merely a code, a notational device, then the cash value of any philosophical clarification it might provide must lie in its ability to illuminate logical relations *within* ordinary discourse about physical objects and our perception of them. Thus, the fact (if it were a fact) that a code can be constructed for ordinary perception talk which 'speaks' of a "relation of identity" between the components ("sense data") of "minds" and of "things," would presumably have as its cash value the insight that ordinary discourse about physical objects and perceivers could (in principle) be constructed from sentences of the form "There looks to be a physical object with a red and triangular facing surface over there" (the counterpart in ordinary language of the basic expressions of the code). In more traditional terms, the clarification would consist in making manifest the fact that persons and things are alike logical constructions out of *lookings* or *appearings* (*not* appearances!). But any claim to this effect soon runs into insuperable difficulties which become apparent once the role of "looks" or "appears" is understood. And it is to an examination of this role that I now turn.

III. THE LOGIC OF 'LOOKS'

10. Before turning aside to examine the suggestion that the language of sense data is "another language" for the situations described by the so-called "language of appearing," I had concluded that classical sense datum theories, when pressed, reveal themselves to be the result of a mismating of two ideas: (1) The idea that there are certain "inner episodes," e.g. the sensation of a red triangle or of a C# sound, which occur to human beings and brutes without any prior process of learning or concept formation, and without which it would -- in *some* sense -- be impossible to see, for example, that the facing surface of a physical object is red and triangular, or *hear* that a certain physical sound is C#. (2) The idea that there are certain "inner episodes" which are the non-inferential knowings that, for example, a certain item is red and triangular, or, in the case of sounds, C#, which inner episodes are the necessary conditions of empirical knowledge as providing the evidence for all other empirical propositions. If this diagnosis is correct, a reasonable next step would be to examine these two ideas and determine how that which survives criticism in each is properly to be combined with the other. Clearly we would have to come to grips with the idea of *inner episodes*, for this is common to both.

Many who attack the idea of the given seem to have thought that the central mistake embedded in this idea is exactly the idea that there are inner episodes, whether thoughts or so-called "immediate experiences," to which each of us has privileged access. I shall argue that this is just not so, and that the Myth of the Given can be dispelled without resorting to the crude verificationisms or operationalisms characteristic of the more dogmatic forms of recent empiricism. Then there are those who, while they do not reject the idea of inner episodes, find the Myth of the Given to consist in the idea that knowledge of these episodes furnishes *premises* on which empirical knowledge rests as on a foundation. But while this idea has, indeed, been the most widespread form of the Myth, it is far from constituting its essence. Everything hinges on *why* these philosophers reject it. If, for example, it is on the ground that the learning of a language is a *public* process which proceeds in a domain of *public* objects and is governed by *public* sanctions, so that *private* episodes -- with the exception of a mysterious nod in their direction -- must needs escape the net of rational discourse, then, while these philosophers are immune to the form of the myth which has flowered in sense-datum theories, they have no defense against the myth in the form of the givenness of such facts as that *physical object x looks red to person S at time t*, or that *there looks to person S at time t to be a red physical*

object over there. It will be useful to pursue the Myth in this direction for a while before more general issues are raised.

11. Philosophers have found it easy to suppose that such a sentence as "The tomato looks red to Jones" says that a certain triadic relation, *looking* or *appearing*, obtains among a physical object, a person, and a quality. {2} "A looks f to S" is assimilated to "x gives y to z" -- or, better, since giving is, strictly speaking, an action rather than a relation -- to "x is between y and z," and taken to be a case of the general form "R(x,y,z)." Having supposed this, they turn without further ado to the question, "Is this relation analyzable?" Sense-datum theorists have, on the whole, answered "Yes," and claimed that facts of the form *x looks red to X* are to be analyzed in terms of sense data. Some of them, without necessarily rejecting this claim, have argued that facts of this kind are, at the very least, to be *explained* in terms of sense data. Thus, when Broad {3} writes "If, in fact, nothing elliptical is before my mind, it is very hard to understand why the penny should seem *elliptical* rather than of any other shape (p. 240)," he is appealing to sense-data as a means of *explaining* facts of this form. The difference, of course, is that whereas if *x looks f to S* is correctly *analyzed* in terms of sense data, then no one could believe that *x looks f to S* without believing that *S* has sense data, the same need not be true if *x looks f to S* is explained in terms of sense data, for, in the case of some types of explanation, at least, one can believe a fact without believing its explanation.

On the other hand, those philosophers who reject sense-datum theories in favor of so-called theories of appearing have characteristically held that facts of the form *x looks f to S* are ultimate and irreducible, and that sense data are needed neither for their analysis nor for their explanation. If asked, "Doesn't the statement 'x looks red to S' have as part of its meaning the idea that *S* stands in some relation to something that *is* red?" their answer is in the negative, and, I believe, rightly so.

12. I shall begin my examination of "X looks red to S at t" with the simple but fundamental point that the sense of "red" in which things *look* red is, on the face of it, the same as that in which things *are* red. When one glimpses an object and decides that it looks red (to *me, now*, from here) and wonders whether it really *is* red, one is surely wondering whether the color -- red -- which it looks to have is the one it really does have. This point can be obscured by such verbal

{2} A useful discussion of views of this type is to be found in Roderick Chisholm's "The Theory of Appearing," in Max Black (ed.), *Philosophical Analysis*, pp. 102-18. Ithaca: Cornell Univ. Press, 1950 and in H.H. Price's *Perception*. London: Methuen, 1932.

{3} Broad, C.D., *Scientific Thought*, London: Kegan Paul, 1923.

manipulations as hyphenating the words "looks" and "red" and claiming that it is the insoluble unit "looks-red" and not just "looks" which is the relation. Insofar as this dodge is based on insight, it is insight into the fact that *looks* is not a relation between a person, a thing, and a quality. Unfortunately, as we shall see, the reason for this fact is one which gives no comfort at all to the idea that it is *looks-red* rather than *looks* which is the relation.

I have, in effect, been claiming that *being red* is logically prior, is a logically simpler notion, than *looking red*; the function "x is red" to "x looks red to y." In short, that it just won't do to say that *x is red* is analyzable in terms of *x looks red to y*. But what, then, are we to make of the necessary truth -- and it is, of course, a necessary truth -- that

(x is red) \equiv (x would look red to standard observers in standard conditions)?

There is certainly some sense to the idea that this is at least the schema for a definition of *physical redness* in terms of *looking red*. One begins to see the plausibility of the gambit that *looking-red* is an insoluble unity, for the minute one gives "red" (on the right-hand side) an independent status, it becomes what it obviously is, namely "red" as a predicate of physical objects, and the supposed definition becomes an obvious circle.

13. The way out of this troubling situation has two parts. The *second* is to show how "x is red" can be necessarily equivalent to "x would look red to standard observers in standard situations" without this being a definition of "x is red" in terms of "x looks red." But the *first*, and logically prior, step is to show that "x looks red to S" does not assert either an unanalyzable triadic relation to obtain between x, red, and S, or an unanalyzable dyadic relation to obtain between x and S. Not, however, because it asserts an *analyzable* relation to obtain, but because *looks* is not a relation at all. Or, to put the matter in a familiar way, one can say that *looks* is a relation if he likes, for the sentences in which this word appears show some grammatical analogy to sentences built around words which we should not hesitate to classify as relation words; but once one has become aware of certain other features which make them very unlike ordinary relation sentences, he will be less inclined to view his task as that of *finding the answer* to the question "Is looks a relation?"

14. To bring out the essential features of the use of "looks," I shall engage in a little historical fiction. A young man, whom I shall call John, works in a necktie shop. He has learned the use of color words in the usual way, with this exception. I shall suppose that he has never looked at an object in other than standard conditions. As he examines

his stock every evening before closing up shop, he says, "This is red," "That is green," "This is purple," etc., and such of his linguistic peers as happen to be present nod their heads approvingly.

Let us suppose, now, that at this point in the story, electric lighting is invented. His friends and neighbors rapidly adopt this new means of illumination, and wrestle with the problems it presents. John, however, is the last to succumb. Just after it has been installed in his shop, one of his neighbors, Jim, comes in to buy a necktie.

"Here is a handsome green one," says John.

"But it *isn't* green," says Jim, and takes John outside.

"Well," says John, "it was green in there, but now it is blue."

"No," says Jim, "you know that neckties don't change their color merely as a result of being taken from place to place."

"But perhaps electricity changes their color and they change back again in daylight?"

"That would be a queer kind of change, wouldn't it?" says Jim.

"I suppose so," says bewildered John. "But we *saw* that it was green *in there*."

No, we didn't see that it was green in there, because it wasn't green, and you can't see what isn't so!"

"Well, this is a pretty pickle," says John. "*I just don't know what to say*."

The next time John picks up this tie in his shop and someone asks what color it is, his first impulse is to say "It is green." He suppresses this impulse, and remembering what happened before, comes out with "It is blue." He doesn't see that it is blue, nor would he say that he sees it to be blue. What does he see? Let us ask him.

I don't know *what* to say. If I didn't know that the tie is blue -- and the alternative to granting this is odd indeed -- I would swear that I was seeing a green tie and seeing that it is green. It is *as though* I were seeing the necktie to be green."

If we bear in mind that such sentences as "This is green" have both a *fact-stating* and a *reporting* use, we can put the point I have just been making by saying that once John learns to stifle the *report* "This necktie is green" when looking at it in the shop, there is no other *report* about color and the necktie which he knows how to make. To be sure, he now says "This necktie is blue." But he is not making a *reporting* use of this sentence. He uses it as the conclusion of an inference.. {4}

{4} (Added 1963) When John has mastered looks talk he will be able to say not only "The tie looks green" but "The tie looks to be blue," where the latter has the sense of "...looks as blue ties look in these circumstances." The distinction between "looks \emptyset " and "looks to be \emptyset " corresponds to Chisholm's distinction between non-comparative and comparative "appears" -- statements.

15. We return to the shop after an interval, and we find that when John is asked "What is the color of this necktie?" he makes such statements as "It looks green, but take it outside and see." It occurs to us that perhaps in learning to say "This tie *looks* green" when in the shop, he has learned to make a new kind of report. Thus, it might seem as though his linguistic peers have helped him to notice a new kind of *objective* fact, one which, though a relational fact involving a perceiver, is as logically independent of the beliefs, the conceptual framework of the perceiver, as the fact that the necktie is blue; but a *minimal* fact, one which it is safer to report because one is less likely to be mistaken. Such a minimal fact would be the fact that the necktie looks green to John on a certain occasion, and it would be properly reported by using the sentence "This necktie *looks* green." It is this type of account, of course, which I have already rejected.

But what is the alternative? If, that is, we are not going to adopt the sense-datum analysis. Let me begin by noting that there certainly seems to be something to the idea that the sentence "This looks green to me now" has a reporting role. Indeed, it would seem to be essentially a report. But if so, *what* does it report, if not a minimal objective fact, and if what it reports is not to be analyzed in terms of sense data?

16. Let me next call attention to the fact that the experience of having something look green to one at a certain time is, insofar as it is an experience, obviously very much like that of seeing something to be green, insofar as the latter is an experience. But the latter, of course, is not *just* an experience. And this is the heart of the matter. For to say that a certain experience is a *seeing that* something is the case, is to do more than describe the experience. It is to characterize it as, so to speak, making an assertion or claim, and -- which is the point I wish to stress -- to *endorse* that claim. As a matter of fact, as we shall see, it is much more easy to see that the statement "Jones sees that the tree is green" ascribes a propositional claim to Jones' experience and endorses it, than to specify how the statement *describes* Jones' experience.

I realize that by speaking of experiences as containing propositional claims. I may seem to be knocking at closed doors. I ask the reader to bear with me, however, as the justification of this way of talking is one of my major aims. If I am permitted to issue this verbal currency now, I hope to put it on the gold standard before concluding the argument.

16. It is clear that the experience of seeing that something is green is not *merely* the occurrence of the propositional claim 'this is green' -- not even if we add, as we must, that this claim is, so to speak, evoked or wrung from the perceiver by the object perceived. Here Nature -- to turn Kant's simile (which he uses in another context) on

its head -- puts us to the question. The something more is clearly what philosophers have in mind when they speak of "visual impressions" or "immediate visual experiences." What exactly is the logical status of these "impressions" or "immediate experiences" is a problem which will be with us for the remainder of this argument. For the moment it is the propositional claim which concerns us.

I pointed out above that when we use the word "see" as in "S sees that the tree is green" we are not only ascribing a claim to the experience, but endorsing it. It is this endorsement which Ryle has in mind when he refers to *seeing that something is thus and so* as an *achievement*, and to "sees" as an *achievement word*. I prefer to call it a "so it is" or "just so" word, for the root idea is that of *truth*. To characterize S's experience as a *seeing is*, in a suitably broad sense -- which I shall be concerned to explicate -- to apply the semantical concept of truth to that experience.

Now the suggestion I wish to make is, in its simplest terms, that the statement "X looks green to Jones" differs from "Jones sees that x is green" in that whereas the latter both ascribes a propositional claim to Jones' experience *and endorses it*, the former ascribes the claim but does not endorse it. This is the essential difference between the two, for it is clear that two experiences may be identical *as experiences*, and yet one be properly referred to as a *seeing that* something is green, and the other *merely* as a case of something's *looking* green. Of course, if I say "X *merely looks* green to S" I am not only failing to endorse the claim, I am rejecting it.

Thus, when I say "X looks green to me now" I am *reporting* the fact that my experience is, so to speak, intrinsically, *as an experience*, indistinguishable from a veridical one of seeing that x is green. Involved in the report is the ascription to my experience of the claim 'x is green'; and the fact that I make this report rather than the simple report "X is green" indicates that certain considerations have operated to raise, so to speak in a higher court, the question 'to endorse or not to endorse.' I may have reason to think that x may not after all be green.

If I make at one time the report "X looks to be green" -- which is not only a report, but the withholding of an endorsement -- I may later, when the original reasons for withholding endorsement have been rebutted, endorse the original claim by saying "I saw that it was green, though at the time I was only sure that it looked green." Notice that I will only say "I see that x is green" (as opposed to "X is green") when the question "to endorse or not to endorse" has come up. "I see that x is green" belongs, so to speak, on the same level as "X looks green" and "X *merely looks* green."

17. There are many interesting and subtle questions about the

dialectics of "looks talk," into which I do not have the space to enter. Fortunately, the above distinctions suffice for our present purposes. Let us suppose, then, that to say that "X looks green to S at t" is, in effect, to say that S has that kind of experience which, if one were prepared to endorse the propositional claim it involves, one would characterize as *seeing x to be green at t*. Thus, when our friend John learns to use the sentence "This necktie looks green to me" he learns a way of reporting an experience of the kind which, as far as any categories I have yet permitted him to have are concerned, he can only characterize by saying that as an experience it does not differ from seeing something to be green, and that evidence for the proposition 'This necktie is green' is *ipso facto* evidence for the proposition that the experience in question is *seeing that the necktie is green*.

Now one of the chief merits of this account is that it permits a parallel treatment of 'qualitative' and 'existential' seeming or looking. Thus, when I say "The tree looks bent" I am endorsing that part of the claim involved in my experience which concerns the existence of the tree, but withholding endorsement from the rest. On the other hand, when I say "There looks to be a bent tree over there" I am refusing to endorse any but the most general aspect of the claim, namely, that there is an 'over there' as opposed to a 'here.' Another merit of the account is that it explains how a necktie, for example, can look red to S at t, without looking scarlet or crimson or any other determinate shade of red. In short it explains how things can have a *merely generic* look, a fact which would be puzzling indeed if looking red were a *natural* as opposed to [an] *epistemic* fact about objects. The core of the explanation, of course, is that the propositional claim involved in such an experience may be, for example, either the more determinate claim 'This is red' or the more determinate claim 'This is crimson.' The complete story is more complicated, and requires some account of the role in these experiences of the 'impressions' or 'immediate experiences' the logical status of which remains to be determined. But even in the absence of these additional details, we can note the resemblance between the fact that x can look red to S, without it being true of some specific shade of red that x looks to S to be of that shade, and the fact that S can believe that Cleopatra's Needle is tall, without its being true of some determinate number of feet that S believes it to be that number of feet tall.

18. The point I wish to stress at this time, however, is that the concept of *looking green*, the ability to recognize that something *looks green*, presupposes the concept of *being green*, and that the latter concept involves the ability to tell what colors objects have by looking at them -- which, in turn, involves knowing in what circumstances to place an object if one wishes to ascertain its color by looking at it.

Let me develop this latter point. As our friend John becomes more and more sophisticated about his own and other people's visual experiences, he learns under what conditions it is as though one were seeing a necktie to be of one color when in fact it is of another. Suppose someone asks him "Why does this tie look green to me?" John may very well reply "Because it is blue, and blue objects look green in this kind of light." And if someone asks this question when looking at the necktie in plain daylight, John may very well reply "Because the tie is green" -- to which he may add "We are in plain daylight, and in daylight things look what they are." We thus see that

(x is red) \equiv (x looks red to standard observers in standard conditions)

is a necessary truth *not* because the right-hand side is the definition of "x is red," but because "standard conditions" means condition in which things look what they are. And, of course, *which* conditions are standard for a given mode of perception is, at the common-sense level specified by a list of conditions which exhibit the vagueness and open texture characteristic of ordinary discourse. {5}

19. I have arrived at a stage in my argument which is, at least *prima facie*, out of step with the basic presuppositions of logical atomism. Thus, as long as *looking green* is taken to be the notion to which *being green* is reducible, it could be claimed with considerable plausibility that fundamental concepts pertaining to observable fact have that logical independence of one another which is characteristic of the empiricist tradition. Indeed, at first sight the situation is *quite* disquieting, for if the ability to recognize that x looks green presupposes the concept of *being green*, and if this in turn involves knowing in what circumstances to view an object to ascertain its color, then, since one can scarcely determine what the circumstances are without noticing that certain objects have certain perceptible characteristics -- including colors -- it would seem that one couldn't form the concept of *being green*, and, by parity of reasoning, of the other colors, unless he already had them.

Now, it just won't do to reply that to have the concept of green, to know what it is for something to be green, it is sufficient to respond when one is *in point of fact* in standard conditions, to green objects with the vocable "This is green." Not only must the conditions be of a sort that is appropriate for determining the color of an object by

{5} (Added 1963) Standard circumstances are, indeed, the circumstances in which things look as they are. But the non-trivial character of the above formula emerges when we replace "standard circumstances" by the mention of a specific kind of circumstance (e.g. daylight) and add that daylight is the standard circumstance of perception, i.e. the condition in which color words have their primary perceptual use.

looking, the subject must *know* that conditions of this sort *are* appropriate. And while this does not imply that one must have concepts before one has them, it does imply that one can have the concept of green only by having a whole battery of concepts of which it is one element. It implies that while the process of acquiring the concept of green may -- indeed does -- involve a long history of acquiring *piecemeal* habits of response to various objects in various circumstances, there is an important sense in which one has *no* concept pertaining to the observable properties of physical objects in Space and Time unless one has them all -- and, indeed, as we shall see, a great deal more besides. {6}

20. Now, I think it is clear what a logical atomist, supposing that he found any merit at all in the above argument, would say. He would say that I am overlooking the fact that the logical space of physical objects in Space and Time rests on the logical space of sense contents, and he would argue that it is concepts pertaining to sense contents which have the logical independence of one another which is characteristic of traditional empiricism. "After all," he would point out, "concepts pertaining to theoretical entities -- molecules, for example -- have the mutual dependence you have, perhaps rightly, ascribed to concepts pertaining to *physical* fact. But," he would continue, "theoretical concepts have empirical content because they rest on -- are coordinated with -- a more fundamental logical space. Until you have disposed, therefore, of the idea that there is a more fundamental logical space than that of physical objects in Space and Time, or shown that it too is fraught with coherence, your incipient *Meditations Hegeliennes* are premature."

And we can imagine a sense-datum theorist to interject the following complaint: "You have begun to write as though you had shown not only that *physical redness* is not to be analyzed in terms of *looking red* -- which I will grant -- but also that physical redness is not to be analyzed at all, and, in particular, not to be analyzed in terms of the redness of red sense contents. Again, you have begun to write as though you had shown not only that observing that *x looks red* is not more basic than observing that *x is red*, but also that there is *no* form of visual noticing more basic than seeing that *x is red*, such as the sensing of a red sense content. I grant," he continues, "that the tendency of sense-datum theorists has been to claim that the *redness* of physical objects is to be analyzed in terms of *looking red*, and then to

{6} (Added 1963) The argument can admit a distinction in principle between a rudimentary concept of "green" which could be learned without learning the logical space of looks talk, and a richer concept of "green" in which "is green" can be challenged by "merely looks green." The essential point is that even to have the more rudimentary concept presupposes having a battery of other concepts.

claim that *looking red* is itself to be analyzed in terms of *red sense contents*, and that you may have undercut this line of analysis. But what is to prevent the sense-datum theorist from taking the line that the properties of physical objects are *directly* analyzable into the qualities and phenomenal relations of sense contents?"

Very well. But once again we must ask, How does the sense-datum theorist come by the framework of sense contents? and How is he going to convince us that there are such things? For even if *looking red* doesn't enter into the analysis of physical redness, it is by asking us to reflect on the experience of having something look red to us that he hopes to make this framework convincing. And it therefore becomes relevant to note that my analysis of *x looks red to S at t* has not, at least as far as I have pushed it to date, revealed any such items as sense-contents. And it may be relevant to suggest that once we see clearly that physical redness is not to be given a dispositional analysis in terms of *looking red*, the idea that it is to be given *any* kind of dispositional analysis loses a large measure of its plausibility. In any event, the next move must be to press further the above account of qualitative and existential looking.

IV. EXPLAINING LOOKS

21. I have already noted that sense-datum theorists are impressed by the question "How can a physical object look red to S, unless something in that situation *is* red and S is taking account of it? If S isn't experiencing something red, how does it happen that the physical object looks *red*, rather than green or streaky?" There is, I propose to show, *something* to this line of thought, though the story turns out to be a complicated one. And if, in the course of telling the story, I shall be led to make statements which resemble *some* of the things sense-datum theorists have said, this story will amount to a sense-datum theory only in a sense which robs this phrase of an entire dimension of its traditional epistemological force, a dimension which is characteristic of even such heterodox forms of sense-datum theory as the "another language" approach.

Let me begin by formulating the question: "Is the fact that an object looks to S to be red and triangular, or that there looks to S to be a red and triangular object over there, to be explained in terms of the idea that Jones has a sensation -- or impression, or immediate experience -- of a red triangle? One point can be made right away, namely that if these expressions are so understood that, say, the immediate experience of a red triangle implies the existence of something -- not a physical object -- which *is* red and triangular, and if the redness which this item has is the same as the redness which the physical object *looks*

to have, then the suggestion runs up against the objection that the redness physical objects *look* to have is the same as the redness physical objects actually *do* have, so that items which *ex hypothesi* are not physical objects, and which radically, even categorially, differ from physical objects, would have the same redness as physical object. And while this is, perhaps, not entirely out of the question, it certainly provides food for thought. Yet when it is claimed that "obviously" physical objects can't *look* red to one unless one is experiencing something that *is* red, is it not presumed that the redness which the *something* has is the redness which the physical object *looks to have*?

Now there are those who would say that the question "Is the fact that an object looks red and triangular to S to be explained -- as opposed to notationally reformulated -- in terms of the idea that S has an impression of a red triangle?" simply doesn't arise, on the ground that there are perfectly sound explanations of qualitative and existential lookings which make no reference to 'immediate experiences' or other dubious entities. Thus, it is pointed out, it is perfectly proper to answer the question "Why does this object look red?" by saying "Because it is an orange object looked at in such and such circumstances." The explanation is, in principle, a good one, and is typical of the answers we make to such questions in everyday life. But because these explanations are good, it by no means follows that explanations of other kinds might not be equally good, and, perhaps, more searching.

22. On the face of it there are at least two ways in which additional, but equally legitimate explanations *might* be forthcoming for such a fact as that *x looks red*. The first of these is suggested by a simple analogy. Might it not be the case that just as there are two kinds of good explanation of the fact that this balloon has expanded, (a) in terms of the Boyle-Charles laws which relate the empirical concepts of volume, pressure, and temperature pertaining to gases, and (b) in terms of the kinetic theory of gases; so there are two ways of explaining the fact that this object looks red to S: (a) in terms of empirical generalizations relating the colors of objects, the circumstances in which they are seen, and the colors they look to have, and (b) in terms of a theory of perception in which 'immediate experiences' play a role analogous to that of the molecules of the kinetic theory.

Now there is such an air of paradox to the idea that 'immediate experiences' are *mere* theoretical entities -- entities, that is, which are postulated, along with certain fundamental principles concerning them, to explain uniformities pertaining to sense perception, as molecules, along with the principles of molecular motion, are postulated to explain the experimentally determined regularities pertaining

to gases -- that I am going to lay it aside until a more propitious context of thought may make it seem relevant. Certainly, those who have thought that qualitative and existential lookings are to be explained in terms of 'immediate experiences' thought of the latter as the most untheoretical of entities, indeed, as *the observables par excellence*.

Let us therefore turn to a second way in which, at least prima facie, there might be an additional, but equally legitimate explanation of existential and qualitative lookings. According to this second account, when we consider items of this kind, we *find* that they contain as components items which are properly referred to as, for example, 'the immediate experience of a red triangle.' Let us begin our exploration of this suggestion by taking another look at our account of existential and qualitative lookings. It will be remembered that our account of qualitative looking ran, in rough and ready terms, as follows:

'x looks red to S' has the sense of 'S has an experience which involves in a unique way the idea *that x is red* and involves it in such a way that if this idea were true, {7} the experience would correctly be characterized as a seeing that x is red.'

Thus, our account implies that the three situations

- (a) Seeing that x, over there, is red
- (b) Its looking to one that x, over there, is red
- (c) Its looking to one as though there were a red object over there

differ primarily in that (a) is so formulated as to involve an endorsement of the idea that x, over there, is red, whereas in (b) this idea is only partially endorsed, and in (c) not at all. Let us refer to the idea *that x, over there, is red* as the *common propositional content* of these three situations. (This is, of course, not strictly correct, since the propositional content of (c) is *existential*, rather than about a presupposedly designated object x, but it will serve my purpose. Furthermore, the common propositional content of these three experiences is much more complex and determinate than is indicated by the sentence we use to describe our experience to others, and which I am using to represent it. Nevertheless it is clear that, subject to the first of these qualifications, the propositional content of these three experiences *could* be identical.)

The propositional content of these three experiences is, of course, a part of that to which we are logically committed by characterizing them as situations of these three kinds. Of the remainder, as we have seen, part is a matter of the extent to which this propositional content is endorsed. It is the residue with which we are now concerned. Let us call this residue the *descriptive content*. I can then point

{7} (Added 1963)...and if S knew that the circumstances were normal.

out that it is implied by my account that not only the *propositional content*, but also the *descriptive content* of these three experiences may be identical. I shall suppose this to be the case, though that there must be some factual difference in the *total* situations is obvious.

Now, and this is the decisive point, in characterizing these three experiences as, respectively, a *seeing that x, over there, is red, its looking to one as though x, over there, were red*, and *its looking to one as though there were a red object over there*, we do not specify this common *descriptive content* save *indirectly*, by implying that *if the common propositional content were true*,^{8} then all these three situations would be cases of *seeing that x, over there, is red*. Both existential and qualitative lookings are experiences that would be *seeings* if their propositional contents were true.

Thus, the very nature of "looks talk" is such as to raise questions to which it gives no answer: What is the *intrinsic* character of the common descriptive content of these three experiences? and How are they able to have it in spite of the fact that whereas in the case of (a) the perceiver must be in the presence of a red object over there, in (b) the object over there need not be red, while in (c) there need be no object over there at all?

23. Now it is clear that if we were required to give a more direct characterization of the common descriptive content of these experiences, we would begin by trying to do so in terms of the quality *red*. Yet, as I have already pointed out, we can scarcely say that this descriptive content is itself something red unless we can pry the term "red" loose from its prima-facie tie with the category of physical objects. And there is a line of thought which has been one of the standard gambits of perceptual epistemology and which seems to promise exactly this. If successful, it would convince us that *redness* -- in the most basic sense of this term -- is a characteristic of items of the sort we have been calling sense contents. It runs as follows:

While it would, indeed, be a howler to say that we don't see chairs, tables, etc., but only their facing surfaces, nevertheless, although we see a table, say, and although the table has a back as well as a front, we do not see the back of the table as we see its front. Again, although we see the table, and although the table has an 'inside,' we do not see the inside of the table as we see its facing outside. Seeing an object entails seeing its facing surface. If we are seeing that an object is red, this entails seeing that its facing surface is red. A red surface is a two-dimensional red expanse -- two-dimensional in that though it may be *bulgy*, and in *this* sense three-dimensional, it has no *thickness*. As far as the analysis of perceptual consciousness is concerned, a red physical object is one that has a red expanse as its surface.

^{8} (Added 1963)...and if the subject knew that the circumstances were normal.

Now a red expanse is not a physical object, nor does the existence of a red expanse entail the existence of a physical object to which it belongs. (Indeed, there are "wild" expanses which do not belong to any physical object.) The "descriptive content" -- as you put it -- which is common to the three experiences (a), (b) and (c) above, is exactly this sort of thing, a bulgy red expanse.

Spelled out thus baldly, the fallacy is, or should be, obvious; it is a simple equivocation on the phrase "having a red surface." We start out by thinking of the familiar fact that a physical object may be of one color "on the surface" and of another color "inside." We may express this by saying that, for example, the 'surface' of the object is red. but its 'inside' green. But in saying this we are *not* saying that there is a 'surface' in the sense of a bulgy two-dimensional particular, a red 'expanse' which is a component particular in a complex particular which also includes green particulars. The notion of two-dimensional bulgy (or flat) particulars is a product of philosophical (and mathematical) sophistication which can be *related to* our ordinary conceptual framework, but does not belong in an *analysis* of it. I think that in its place it has an important contribution to make. (See below, Section 61, (5)) But this place is in the logical space of an ideal *scientific* picture of the world and not in the logical space of ordinary discourse. It has nothing to do with the logical grammar of our ordinary color words. It is just a mistake to suppose that as the word "red" is actually used, it is ever surfaces in the sense of two-dimensional particulars which are red. The only particular involved when a physical object is "red on the outside, but green inside" is the physical object itself, located in a certain region of Space and enduring over a stretch of Time. The fundamental grammar of the attribute *red* is *physical object x is red at place p and at time t*. Certainly, when we say of an object that it is red, we commit ourselves to no more than that it is red "at the surface." And sometimes it is red at the surface by having what we would not hesitate to call a "part" which is red through and through -- thus, a red table which is red by virtue of a layer of red paint. But the red paint is not itself red by virtue of a component -- a 'surface' or 'expanse'; a particular with no thickness -- which is red. There may, let me repeat, turn out to be some place in the total philosophical picture for the statement that there "really are" such particulars, and that they are elements in perceptual experience. But this place is not to be found by an analysis of ordinary perceptual discourse, any more than Minkowski four-dimensional Space-Time worms are an *analysis* of what we mean when we speak of physical objects in Space and Time.

V. IMPRESSIONS AND IDEAS: A LOGICAL POINT

24. Let me return to beating the neighboring bushes. Notice that a common descriptive component of the three experiences I am considering is itself often referred to (by philosophers, at least) as an *experience* -- as, for example, an *immediate experience*. Here caution is necessary. The notorious "ing-ed" ambiguity of "experience" must be kept in mind. For although *seeing that x, over there, is red* is an *experiencing* -- indeed, a paradigm case of experiencing -- it does not follow that the descriptive content of this experiencing is itself an *experiencing*. Furthermore, because the fact that *x, over there, looks to Jones to be red* would be a *seeing*, on Jones' part, *that x, over there, is red*, if its propositional content were true, and because if it *were* a seeing, it *would be* an experiencing, we must beware of concluding that the fact that *x, over there, looks red to Jones* is itself an *experiencing*. Certainly, the fact that something looks red to me can itself be *experienced*. But it is not itself an experiencing.

All this is not to say that the common descriptive core may not turn out to be an *experiencing*.^{9} though the chances that this is so appear less with each step in my argument. On the other hand, I can say that it is a component in states of affairs which are *experienced*, and it does not seem unreasonable to say that it is itself *experienced*. But what kind of experience (in the sense of *experienced*) is it? If my argument to date is sound, I cannot say that it is a *red* experience, that is, a red experienced item. I could, of course, introduce a new use of "red" according to which to say of an 'immediate experience' that it was red, would be the stipulated equivalent of characterizing it as that which could be the common descriptive component of a *seeing* that something is red, and the corresponding qualitative and existential *lookings*. This would give us a *predicate* by which to describe and report the experience, but we should, of course, be only verbally better off than if we could only refer to this kind of experience as *the kind which* could be the common descriptive component of a *seeing* and a qualitative or existential *looking*. And this makes it clear that one way of putting what we are after is by saying that we want to have a *name* for this kind of experience which is truly a *name*, and not just shorthand for a definite description. Does ordinary usage have a *name* for this kind of experience?

I shall return to this quest in a moment. In the meantime it is important to clear the way of a traditional obstacle to understanding

{9} (Added 1963) The term "experiencing" in the question "Is the common descriptive component an experiencing?" is used in an epistemic sense. In the non-epistemic sense of an "undergoing," the common descriptive component is, of course, an experiencing.

the status of such things as *sensations of red triangles*. Thus, suppose I were to say that while the experience I am examining is not a red experience, it is an experience *of red*. I could expect the immediate challenge: "Is 'sensation of a red triangle' any better off than 'red and triangular experience'? Does not the existence of a sensation of a red triangle entail the existence of a red and triangular item, and hence, *always on the assumption that red is a property of physical objects*, of a red and triangular physical object? Must you not, therefore abandon this assumption, and return to the framework of sense contents which you have so far refused to do?"

One way out of [this] dilemma would be to assimilate "Jones has a sensation of a red triangle" to "Jones believes in a divine Huntress." For the truth of the latter does not, of course, entail the existence of a divine Huntress. Now, I think that most contemporary philosophers are clear that it is possible to attribute to the context

...sensation of...

the *logical* property of being such that "There is a sensation of a red triangle" does not entail "There is a red triangle" without assimilating the context "...sensation of..." to the context "...believes in..." in any closer way. For while mentalistic verbs characteristically provide nonextensional contexts (when they are not "achievement" or "endorsing" words), not all nonextensional contexts are mentalistic. Thus, as far as the purely *logical* point is concerned, there is no reason why "Jones has a sensation of a red triangle" should be assimilated to "Jones believes in a divine Huntress" rather than to "It is possible that the moon is made of green cheese" or to any of the other nonextensional contexts familiar to logicians. Indeed there is no reason why it should be assimilated to any of these. "...sensation of..." or "...impression of..." could be a context which, though sharing with these others the logical property of nonextensionality, was otherwise in a class by itself.

25. Yet there is no doubt but that *historically* the contexts "...sensation of..." and "...impression of..." were assimilated to such mentalistic contexts as "...believes...", "...desires...", "...chooses...", in short to contexts which are either themselves 'propositional attitudes' or involve propositional attitudes in their analysis. This assimilation took the form of classifying sensations with *ideas* or *thoughts*. Thus Descartes uses the word "thought" to cover not only *judgments, inferences, desires, volitions*, and (occurrent) *ideas of abstract qualities*, but also *sensations, feelings, and images*. Locke, in the same spirit, uses the term "idea" with similar scope. The apparatus of Conceptualism, which had its genesis in the controversy over universals, was given a correspondingly wide application. Just as

objects and situations were said to have 'objective being' in our *thoughts*, when we think of them, or judge them to obtain -- as contrasted with the 'subjective' or 'formal being' which they have in the world -- so, when we have a sensation of a red triangle, the red triangle was supposed to have 'objective being' in our sensation.

In elaborating, for a moment, this conceptualistic interpretation of sensation, let me refer to that which has 'objective being' in a *thought* or *idea* as its *content* or *immanent object*. Then I can say that the fundamental difference between occurrent *abstract ideas* and *sensations*, for both Locke and Descartes, lay in the *specificity* and, above all, the *complexity* of the content of the latter. (Indeed, both Descartes and Locke assimilated the contrast between the simple and the complex in ideas to that between the generic and the specific.) Descartes thinks of sensations as confused thoughts of their external cause; Spinoza of sensations and images as confused thoughts of bodily states, and still more confused thoughts of the external causes of these bodily states. And it is interesting to note that the conceptualistic thesis that abstract entities have only *esse intentionale* (their *esse* is *concupi*) is extended by Descartes and, with less awareness of what he is doing, Locke, to include the thesis that colors, sounds, etc., exist "only in the mind" (their *esse* is *percipi*) and by Berkeley to cover all perceptible qualities.

Now, I think we would all agree, today, that this assimilation of sensations to thoughts is a mistake. It is sufficient to note that if "sensation of a red triangle" had the sense of "episode of the kind which is the common descriptive component of those experiences which *would be* cases of seeing that the facing surface of a physical object is red and triangular if an object *were* presenting a red and triangular facing surface" then it would have the nonextensionality the noticing of which led to this mistaken assimilation. But while we have indeed escaped from this blind alley, it is small consolation. For we are no further along in the search for a 'direct' or 'intrinsic' characterization of 'immediate experience.'

VI. IMPRESSIONS AND IDEAS: AN HISTORICAL POINT

26. There are those who will say that although I have spoken of exploring blind alleys, it is really I who am blind. For, they will say, if that which we wish to characterize intrinsically is an *experience*, then there *can* be no puzzle about knowing *what kind* of experience it is, though there may be a problem about how this knowledge is to be communicated to others. And, indeed, it is tempting to suppose that if we *should* happen, at a certain stage of our intellectual development, to be able to classify an experience *only* as *of the kind which*

could be common to a *seeing* and corresponding qualitative and existential *lookings*, all we would have to do to acquire a 'direct designation' for this kind of experience would be to pitch in, 'examine' it, locate the kind which it exemplifies and which satisfies the above description, name it -- say "f" -- and, in full possession of the concept of f, classify such experiences, from now on, as f experiences.

At this point, it is clear, the concept -- or, as I have put it, the myth -- of the given is being invoked to explain the possibility of a direct account of immediate experience. The myth insists that what I have been treating as one problem really subdivides into two, one of which is really no problem at all, while the other may have no solution. These problems are, respectively

How do we become aware of an immediate experience as of one sort, and of a simultaneous immediate experience as of another sort?

How can I know that the labels I attach to the sorts to which my immediate experiences belong, are attached by you to the same sorts? May not the sort I call "red" be the sort you call "green" -- and so on systematically throughout the spectrum?

We shall find that the second question, to be a philosophical perplexity, presupposes a certain answer to the first question -- indeed the answer given by the myth. And it is to this first question that I now turn. Actually there are various forms taken by the myth of the given in this connection, depending on other philosophical commitments. But they all have in common the idea that the awareness of certain *sorts* -- and by "sorts" I have in mind, in the first instance, determinate sense repeatables -- is a primordial, non-problematic feature of 'immediate experience.' In the context of conceptualism, as we have seen, this idea took the form of treating sensations as though they were absolutely specific, and infinitely complicated, *thoughts*. And it is essential to an understanding of the empiricist tradition to realize that whereas the contemporary problem of universals primarily concerns the status of repeatable *determinate* features of particular situations, and the contemporary problem of abstract ideas is at least as much the problem of what it is to be aware of determinate repeatables as of what it is to be aware of determinable repeatables, Locke, Berkeley and, for that matter, Hume saw the problem of abstract ideas as the problem of what it is to be aware of *determinable* repeatables. {10} Thus, an examination of Locke's *Essay* makes it clear that he is thinking of

{10} For a systematic elaboration and defense of the following interpretation of Locke, Berkeley, and Hume, the reader should consult "Berkeley's Critique of Abstract Ideas," a Ph.D. thesis by John Linnell, submitted to the Graduate Faculty of the University of Minnesota, June, 1954.

a sensation of white as the sort of thing that can become an abstract idea (occurrent) of White -- a thought of White "in the Understanding" -- merely by virtue of being separated from the context of other sensations (and images) which accompany it on a particular occasion. In other words, for Locke an abstract (occurrent) idea of the determinate repeatable Whiteness is nothing more than an isolated *image of white*, which, in turn, differs from a *sensation of white* only (to use a modern turn of phrase) by being "centrally aroused."

In short, for Locke, the problem of how we come to be aware of *determinate* sense repeatables is no problem at all. Merely by virtue of having sensations and images we have this awareness. *His* problem of abstract ideas is the problem of how we come to be able to think of generic properties. And, as is clear from the *Essay*, he approaches *this* problem in terms of what might be called an "adjunctive theory of specification," that is, the view that (if we represent the idea of a determinable as *the idea of being A*) the idea of a determinate form of A can be represented as *the idea of being A and B*. It is, of course, notorious that this won't account for the relation of *the idea of being red* to *the idea of being crimson*. By thinking of *conjunction* as the fundamental logical relation involved in building up complex ideas from simple ones, and as the principle of the difference between determinable and determinate ideas, Locke precluded himself from giving even a plausible account of the relation between ideas of determinables and ideas of determinates. It is interesting to speculate what turn his thought might have taken had he admitted *disjunctive* as well as *conjunctive* complex ideas, *the idea of being A or B* alongside *the idea of being A and B*.

27. But my purpose here is not to develop a commentary on the shortcomings of Locke's treatment of abstract ideas, but to emphasize that something which is a problem for us was not a problem for him. And it is therefore important to note that the same is true of Berkeley. His problem was not, as it is often construed, "How do we go from the awareness of *particulars* to ideas of *repeatables*?" but rather "Granted that in immediate experience we are aware of absolutely *specific* sense qualities, how do we come to be conscious of genera pertaining to them, and in what does this consciousness consist?" (This is not the only dimension of "abstraction" that concerned him, but it is the one that is central to our purpose.) And, contrary to the usual interpretation, the essential difference between his account and Locke's consists in the fact that whereas Locke was on the whole^{11} committed to the view that there can be an idea which

{11} I say that Locke was "on the whole" committed to the view that there can be an idea which is *of* the genus without being *of* any of its species, because while he saw that it couldn't be any one of the species to the exclusion of the others,

is *of* the genus without being *of* any of its species, Berkeley insists that we can have an idea *of* a genus only by having an idea *of* the genus *as*, to borrow a useful Scotist term, '*contracted*' into one of its species.

Roughly, Berkeley's contention is that if *being A* entails *being B*, then there can be no such thing as an idea which is *of A* without being *of B*. He infers that since *being triangular* entails *having some determinately triangular shape*, there cannot be an idea which is *of triangle* without being *of some determinately triangular shape*. We can be aware of generic triangularity only by having an idea which is of triangularity as '*contracted*' into one of the specific forms of triangularity. Any of the latter will do; they are all "of the same sort."

28. Now, a careful study of the *Treatise* makes it clear that Hume is in the same boat as Berkeley and Locke, sharing with them the presupposition that we have an unacquired ability to be aware of determinate repeatables. It is often said that whereas he begins the *Treatise* by characterizing 'ideas' in terms which do not distinguish between *images* and *thoughts*, he corrects this deficiency in Book I, Part I, Section vii. What these students of Hume tend to overlook is that what Hume does in this later section is give an account *not* of what it is to think of *repeatables* whether determinable or determinate, but of what it is to think of *determinables*, thus of color as contrasted with particular shades of color. And his account of the consciousness of determinables takes for granted that we have a primordial ability to take account of *determinate* repeatables. Thus, his later account is simply built on, and in no sense a revision of, the account of ideas with which he opens the *Treatise*.

and saw no way of avoiding this except by making it of *none* of the species, he was greatly puzzled by this, for he saw that in some sense the idea *of the genus* must be *of all the species*. We have already noted that if he had admitted disjunction as a principle of compounding ideas, he could have said that the idea *of the genus* is the idea *of the disjunction of all its species*, that the idea of *being triangular* is the idea of *being scalene or isosceles*. As it was, he thought that to be of all the species it would have to be the idea of *being scalene and isosceles*, which is, of course, the idea of an impossibility.

Is interesting to note that if Berkeley had faced up to the implications of the criterion we shall find him to have adopted, this disjunctive conception of the generic idea is the one he would have been led to adopt. For since *being G* -- where 'G' stands for a generic character -- entails being S_1 or S_2 or S_3 ... or S_n , -- where ' S_i ' stands for a specific character falling under G -- Berkeley should have taken as the unit of ideas concerning triangles, the idea of the genus Triangle as differentiated into the set of specific forms of triangularity. But, needless to say, if Berkeley *had* taken this step, he could not have thought of a sensation of crimson as a determinate *thought*.

How, then, does he differ from Berkeley and Locke? The latter two had supposed that there must be such a thing as an *occurrent* thought of a determinable, however much they differed in their account of such thoughts. Hume, on the other hand, assuming that there are occurrent thoughts of *determinate* repeatables, *denies* that there are occurrent thoughts of *determinables*. I shall spare the reader the familiar details of Hume's attempt to give a constructive account of our consciousness of determinables, nor shall I criticize it. For my point is that however much Locke, Berkeley, and Hume differ on the problem of abstract ideas, they all take for granted that the human mind has an innate ability to be aware of certain determinate sorts -- *indeed, that we are aware of them simply by virtue of having sensations and images.*

29. Now, it takes but a small twist of Hume's position to get a radically different view. For suppose that instead of characterizing the initial elements of experience as impressions of, e.g. *red*, Hume had characterized them as *red particulars* (and I would be the last to deny that not only Hume, but perhaps Berkeley and Locke as well, often treat impressions or ideas *of red* as though they were *red particulars*) then Hume's view, expanded to take into account determinates as well as determinables, would become the view that all consciousness of sorts or repeatables rests on an association of *words* (e.g. "red") with classes of resembling particulars.

It clearly makes all the difference in the world how this association is conceived. For if the formation of the association involves not only the occurrence of resembling particulars, but also the occurrence of the awareness *that they are resembling particulars*, then the givenness of determinate kinds or repeatables, say crimson, is merely being replaced by the givenness of *facts* of the form *x resembles y*, and we are back with an unacquired ability to be aware of repeatables, in this case the repeatable *resemblance*. Even more obviously, if the formation of the association involves not only the occurrence of red particulars, but the awareness *that they are red*, then the conceptualistic form of the myth has merely been replaced by a realistic version, as in the classical sense-datum theory.

If, however, the association is not mediated by the awareness of facts either of the form *x resembles y*, or of the form *x is f*, then we have a view of the general type which I will call *psychological nominalism*, according to which *all* awareness of *sorts, resemblances, facts*, etc., in short, all awareness of abstract entities -- indeed, all awareness even of particulars -- is a linguistic affair. According to it, not even the awareness of such sorts, resemblances, and facts as pertain to so-called immediate experience is presupposed by the process of acquiring the use of a language.

Two remarks are immediately relevant:

(1) Although the form of psychological nominalism which one gets by modifying Hume's view along the above lines has the essential merit that it avoids the mistake of supposing that there are pure episodes of being aware of sensory repeatables or sensory facts, and is committed to the view that any event which can be referred to in these terms must be, to use Ryle's expression, a mongrel categorical-hypothetical, in particular, a verbal episode *as being the manifestation of associative connections of the word-object and word-word types*, it nevertheless is impossibly crude and inadequate as an account of the simplest concept.

(2) Once sensations and images have been purged of epistemic aboutness, the primary reason for supposing that the fundamental associative tie between language and the world must be between words and 'immediate experiences' has disappeared, and the way is clear to recognizing that basic word-world associations hold, for example, between "red" and red *physical objects*, rather than between "red" and a supposed class of private red particulars.

The second remark, it should be emphasized, does not imply that private sensations or impressions may not be essential to the formation of these associative connections. For one can certainly admit that the tie between "red" and red physical objects -- which tie makes it possible for "red" to mean the quality red -- is *causally* mediated by sensations of red without being committed to the mistaken idea that it is "really" sensations of red, rather than red physical objects, which are the primary denotation of the word "red."

VII. THE LOGIC OF 'MEANS'

30. There is a source of the Myth of the Given to which even philosophers who are suspicious of the whole idea of *inner episodes* can fall prey. This is the fact that when we picture a child -- or a carrier of slabs -- learning his *first* language, *we*, of course, locate the language learner in a structured logical space in which *we* are at home. Thus, we conceive of him as a person (or, at least, a potential person) in a world of physical objects, colored, producing sounds, existing in Space and Time. But though it is we who are familiar with this logical space, we run the danger, if we are not careful, of picturing the language learner as having *ab initio* some degree of awareness -- "pre-analytic," limited and fragmentary though it may be -- of this same logical space. We picture his state as though it were rather like our own when placed in a strange forest on a dark night. In other words, unless we are careful, we can easily take for granted that the process of teaching a child to use a language is that of teaching it to discriminate elements

within a logical space of particulars, universals, facts, etc., of which it is already indiscriminatingly aware, and to associate these discriminated elements with verbal symbols. And this mistake is in principle the same whether the logical space of which the child is supposed to have this indiscriminating awareness is conceived by *us* to be that of physical objects or of private sense contents.

The real test of a theory of language lies not in its account of what has been called (by H. H. Price) "thinking in absence," but in its account of "thinking in presence" -- that is to say, its account of those occasions on which the fundamental connection of language with nonlinguistic fact is exhibited. And many theories which look like psychological nominalism when one views their account of thinking in absence, turn out to be quite "Augustinian" when the scalpel is turned to their account of thinking in presence.

31. Now, the friendly use I have been making of the phrase "psychological nominalism" may suggest that I am about to *equate* concepts with words, and thinking, in so far as it is episodic, with verbal episodes. I must now hasten to say that I shall do nothing of the sort, or, at least, that if I *do* do *something* of the sort, the view I shall shortly be developing is only in a relatively Pickwickian sense an equation of thinking with the use of language. I wish to emphasize, therefore, that as I am using the term, the primary connotation of "psychological nominalism" is the denial that there is any awareness of logical space prior to, or independent of, the acquisition of a language.

However, although I shall later be distinguishing between *thoughts* and their verbal *expression*, there is a point of fundamental importance which is best made before more subtle distinctions are drawn. To begin with, it is perfectly clear that the word "red" would not be a *predicate* if it didn't have the logical syntax characteristic of predicates. Nor would it be the predicate it is, unless, in certain frames of mind, at least, we tended to respond to red objects in standard circumstances with something having the force of "This is red." And once we have abandoned the idea that learning to use the word "red" involves antecedent episodes of the *awareness of redness* -- not to be confused, of course, with *sensations of red* -- there is a temptation to suppose that the word "red" means the quality *red* by virtue of these two facts: briefly, the fact that it has the *syntax* of a predicate, and the fact that it is a *response* (in certain circumstances) to red objects.

But this account of the meaningfulness of "red," which Price has correctly stigmatized as the "thermometer view," would have little plausibility if it were not reinforced by another line of thought which takes its point of departure from the superficial resemblance of

(In German) "*rot*" means *red*

to such relational statements as

Cowley adjoins Oxford.

For once one assimilates the form

". . ." means - - -

to the form

$x R y$

and thus takes it for granted that meaning is a relation between a word and a nonverbal entity, it is tempting to suppose that the relation in question is that of association.

The truth of the matter, of course, is that statements of the form ". . ." means - - -" are *not* relational statements, and that while it is indeed the case that the word "rot" could not mean the quality *red* unless it were associated with red things, it would be misleading to say that the semantical statement "'Rot' means *red*" says of "rot" that it [is] associated with red things. For this would suggest that the semantical statement is, so to speak definitional shorthand for a longer statement about the associative connections of "rot," which is not the case. The rubric ". . ." means - - -" is a linguistic device for conveying the information that a *mentioned* word, in this case "rot," plays the same role in a certain linguistic economy, in this case the linguistic economy of German-speaking peoples, as does the word "red," which is not *mentioned* but *used* -- used in a unique way; *exhibited*, so to speak -- and which occurs "on the right-hand side" of the semantical statement.

We see, therefore, how the two statements

"Und" means *and*

and

"Rot" means *red*

can tell us quite different things about "und" and "rot," for the first conveys the information that "und" plays the purely formal role of a certain logical connective, the second that "rot" plays in German the role of the observation word "red" -- in spite of the fact that *means* has the same sense in each statement, and without having to say that the first says of "und" that it stands in "the meaning relation" to Conjunction, or the second that "rot" stands in "the meaning relation" to Redness. {12}

{12} For an analysis of the problem of abstract entities built on this interpretation of semantical statements, see my "Empiricism and Abstract Entities" in Paul A. Schlipp (ed.), *The Philosophy of Rudolph Carnap*. Wilmette (Ill.), 1963; also "Abstract Entities," *The Review of Metaphysics*, June, 1963.

These considerations make it clear that nothing whatever can be inferred about the complexity of the role played by the word "red" or about the exact way in which the word "red" is related to red things, from the truth of the semantical statement "'red' means the quality *red*." And no consideration arising from the 'Fido'-Fido aspect of the grammar of "means" precludes one from claiming that the role of the word "red" by virtue of which it can correctly be said to have the meaning it does is a complicated one indeed, and that one cannot understand the meaning of the word "red" -- "know what redness is" -- unless one has a great deal of knowledge which classical empiricism would have held to have a purely contingent relationship with the possession of fundamental empirical concepts.

VIII. DOES EMPIRICAL KNOWLEDGE HAVE A FOUNDATION?

32. One of the forms taken by the Myth of the Given is the idea that there is, indeed *must be*, a structure of particular matter of fact such that (a) each fact can not only be noninferentially known to be the case, but presupposes no other knowledge either of particular matter of fact, or of general truths; and (b) such that the noninferential knowledge of facts belonging to this structure constitutes the ultimate court of appeals for all factual claims -- particular and general -- about the world. It is important to note that I characterized the knowledge of fact belonging to this stratum as not only noninferential, but as presupposing no knowledge of other matter of fact, whether particular or general. It might be thought that this is a redundancy, that knowledge (not belief or conviction, but knowledge) which logically presupposes knowledge of other facts *must be* inferential. This, however, as I hope to show, is itself an episode in the Myth.

Now, the idea of such a privileged stratum of fact is a familiar one, though not without its difficulties. Knowledge pertaining to this level is *noninferential*, yet it is, after all, *knowledge*. It is *ultimate*, yet it has *authority*. The attempt to make a consistent picture of these two requirements has traditionally taken the following form:

Statements pertaining to this level, in order to 'express knowledge' must not only be made, but, so to speak, must be worthy of being made, *credible*, that is, in the sense of worthy of credence. Furthermore, and this is a crucial point, they must be made in a way which *involves* this credibility. For where there is no connection between the making of a statement and its authority, the assertion may express *conviction*, but it can scarcely be said to express knowledge.

The authority -- the credibility -- of statements pertaining to this level cannot exhaustively consist in the fact that they are supported by *other* statements, for in that case all *knowledge* pertaining to this level would have to be inferential, which not only contradicts the hypothesis, but flies

in the face of good sense. The conclusion seems inevitable that if some statements pertaining to this level are to express *noninferential* knowledge, they must have a credibility which is not a matter of being supported by other statements. Now there does seem to be a class of statements which fill at least part of this bill, namely such statements as would be said to *report observations*, thus, "This is red." These statements, candidly made, have authority. Yet they are not expressions of inference. How, then, is this authority to be understood?

Clearly, the argument continues, it springs from the fact that they are made in just the circumstances in which they are made, as is indicated by the fact that they characteristically, though not necessarily or without exception, involve those so-called token-reflexive expressions which, in addition to the tenses of verbs, serve to connect the circumstances in which a statement is made with its sense. (At this point it will be helpful to begin putting the line of thought I am developing in terms of the *fact-stating* and *observation-reporting* roles of certain sentences.) Roughly, two verbal performances which are tokens of a non-token-reflexive sentence can occur in widely different circumstances and yet make the same statement; whereas two tokens of a token-reflexive sentence can make the same statement only if they are uttered in the same circumstances (according to a relevant criterion of sameness). And two tokens of a sentence, whether it contains a token-reflexive expression -- over and above a tensed verb -- or not, can make the same *report* only if, made in all candor, they express the *presence* -- in *some* sense of "presence" -- of the state of affairs that is being reported; if, that is, they stand in that relation to the state of affairs, whatever the relation may be, by virtue of which they can be said to formulate observations of it.

It would appear, then, that there are two ways in which a sentence token can have credibility: (1) The authority may accrue to it, so to speak, from above, that is, as being a token of a sentence type *all* the token of which, in a certain use, have credibility, e.g. "2+2=4". In this case, let us say that token credibility is inherited from type authority. (2) The credibility may accrue to it from the fact that it came to exist in a certain way in a certain set of circumstances, e.g. "This is red." Here token credibility is not derived from type credibility.

Now, the credibility of *some* sentence types appears to be *intrinsic* -- at least in the limited sense that it is *not* derived from other sentences, type or token. This is, or seems to be, the case with certain sentences used to make analytic statements. The credibility of *some* sentence types accrues to them by virtue of their logical relations to other sentence types, thus by virtue of the fact that they are logical consequences of more basic sentences. It would seem obvious, however, that the credibility of empirical sentence types cannot be traced without remainder to the credibility of other sentence types. And since no empirical sentence type appears to have *intrinsic* credibility, this means that credibility must accrue to *some* empirical sentence types by virtue of their logical relations to certain sentence tokens, and, indeed, to sentence tokens the authority of which is not derived, in its turn, from the authority of sentence types.

The picture we get is that of there being two *ultimate* modes of credibility: (1) The intrinsic credibility of analytic sentences, which accrues to tokens as being tokens of such a type; (2) the credibility of such tokens as "express observations," a credibility which flows from tokens to types.

33. Let us explore this picture, which is common to all traditional empiricisms, a bit further. How is the authority of such sentence tokens as "express observational knowledge" to be understood? It has been tempting to suppose that in spite of the obvious differences which exist between "observation reports" and "analytic statements," there is an essential similarity between the ways in which they come by their authority. Thus, it has been claimed, not without plausibility, that whereas *ordinary* empirical statements can be *correctly* made without being *true*, observation reports resemble analytic statements in that being correctly made is a sufficient as well as necessary condition of their truth. And it has been inferred from this -- somewhat hastily, I believe -- that "correctly making" the report "This is green" is a matter of "following the rules for the use of 'this,' 'is' and 'green.'"

Three comments are immediately necessary:

(1) First a brief remark about the term "report." In ordinary usage a report is a report made *by* someone *to* someone. To make a report is to *do* something. In the literature of epistemology, however, the word "report" or "*Konstatierung*" has acquired a technical use in which a sentence token can play a reporting role (a) without being an *overt* verbal performance, and (b) without having the character of being "by someone to someone" -- even oneself. There is, of course, such a thing as "talking to oneself" -- *in foro interno* -- but, as I shall be emphasizing in the closing stages of my argument, it is important not to suppose that all "covert" verbal episodes are of this kind.

(2) My second comment is that while *we* shall not assume that because 'reports' *in the ordinary sense* are *actions*, 'reports' in the sense of *Konstatierungen* are also actions, the line of thought we are considering treats them as such. In other words, it interprets the correctness of *Konstatierungen* as analogous to the rightness of actions. Let me emphasize, however, that not all *ought* is *ought to do*, not all correctness the correctness of *actions*.

(3) My third comment is that if the expression "following a rule" is taken seriously, and is not weakened beyond all recognition into the bare notion of exhibiting a uniformity -- in which case the lightning-thunder sequence would "follow a rule" -- then it is the knowledge or belief that the circumstances are of a certain kind, and not the mere fact that they *are* of this kind, which contributes to bringing about the action.

34. In the light of these remarks it is clear that *if* observation reports are construed as *actions*, *if* their correctness is interpreted as the correctness of an *action*, and *if* the authority of an observation report is construed as the fact that making it is "following a rule" in the proper sense of this phrase, *then* we are face to face with givenness in its most straightforward form. For these stipulations commit one to the idea that the authority of *Konstatierungen* rests on nonverbal episodes of awareness -- awareness *that* something is the case, e.g. *that this is green* -- which nonverbal episodes have an intrinsic authority (they are, so to speak, 'self-authenticating') which the *verbal* performances (the *Konstatierungen*) properly performed "express." One is committed to a stratum of authoritative nonverbal episodes ("awarenesses"), the authority of which accrues to a superstructure of *verbal actions*, provided that the expressions occurring in these actions are properly *used*. These self-authenticating episodes would constitute the tortoise on which stands the elephant on which rests the edifice of empirical knowledge. The essence of the view is the same whether these intrinsically authoritative episodes are such items as the awareness that a certain sense content is green or such items as the awareness that a certain physical object looks to oneself to be green.

35. But what is the alternative? We might begin by trying something like the following: An overt or covert token of "This is green" in the presence of a green item is a *Konstatierung* and expresses observational knowledge if and only if it is a manifestation of a tendency to produce overt or covert tokens of "This is green" -- given a certain set -- if and only if a green object is being looked at in standard conditions. Clearly on this interpretation the occurrence of such tokens of "This is green" would be "following a rule" only in the sense that they are instances of a uniformity, a uniformity differing from the lightning-thunder case in that it is an acquired causal characteristic of the language user. Clearly the above suggestion, which corresponds to the "thermometer view" criticized by Professor Price, and which we have already rejected, won't do as it stands. Let us see, however, if it cannot be revised to fit the criteria I have been using for "expressing observational knowledge."

The first hurdle to be jumped concerns the *authority* which, as I have emphasized, a sentence token must have in order that it may be said to express knowledge. Clearly, on this account the only thing that can remotely be supposed to constitute such authority is the fact that one can infer the presence of a green object from the fact that someone makes this report. As we have already noticed, the correctness of a report does not have to be construed as the rightness of an *action*. A report can be correct as being an instance of a general mode

of behavior which, in a given linguistic community, it is reasonable to sanction and support.

The second hurdle is, however, the decisive one. For we have seen that to be the expression of knowledge, a report must not only have authority, this authority must *in some sense* be recognized by the person whose report it is. And this is a steep hurdle indeed. For if the authority of the report "This is green" lies in the fact that the existence of green items appropriately related to the perceiver can be inferred from the occurrence of such reports, it follows that only a person who is able to draw this inference, and therefore who has not only the concept *green*, but also the concept of uttering "This is green" -- indeed, the concept of certain conditions of perception, those which would correctly be called 'standard conditions' -- could be in a position to token "This is green" in recognition of its authority. In other words, for a *Konstatierung* "This is green" to "express observational knowledge," not only must it be a *symptom* or *sign* of the presence of a green object in standard conditions, but the perceiver must know that tokens of "This is green" *are* symptoms of the presence of green objects in conditions which are standard for visual perception.

36. Now it might be thought that there is something obviously absurd in the idea that before a token uttered by, say, Jones could be the expression of observational knowledge, Jones would have to know that overt verbal episodes of this kind are reliable indicators of the existence, suitably related to the speaker, of green objects. I do not think that it is. Indeed, I think that something very like it is true. The point I wish to make now, however, is that if it *is* true, then it follows, as a matter of simple logic, that one could not have observational knowledge of *any* fact unless one knew many *other* things as well. And let me emphasize that the point is not taken care of by distinguishing between *knowing how* and *knowing that*, and admitting that observational knowledge requires a lot of "know how." For the point is specifically that observational knowledge of any particular fact, e.g. that this is green, presupposes that one knows general facts of the form *X is a reliable symptom of Y*. And to admit this requires an abandonment of the traditional empiricist idea that observational knowledge "stands on its own feet." Indeed, the suggestion would be anathema to traditional empiricists for the obvious reason that by making observational knowledge *presuppose* knowledge of general facts of the form *X is a reliable symptom of Y*, it runs counter to the idea that we come to know general facts of this form only *after* we have come to know by observation a number of particular facts which support the hypothesis that X is a symptom of Y.

And it might be thought that there is an obvious regress in the view we are examining. Does it not tell us that observational knowledge at

time t presupposes knowledge of the form *X is a reliable symptom of Y*, which presupposes *prior* observational knowledge, which presupposes *other* knowledge of the form *X is a reliable symptom of Y*, which presupposes still other, and *prior*, observational knowledge, and so on? This charge, however, rests on too simple, indeed a radically mistaken, conception of what one is saying of Jones when one says that he *knows* that-p. It is not just that the objection supposes that knowing is an *episode*; for clearly there are episodes which we can correctly characterize as knowings, in particular, *observings*. The essential point is that in characterizing an episode or a state as that of *knowing*, we are not giving an empirical description of that episode or state; we are placing it in the logical space of reasons, of justifying and being able to justify what one says.

37. Thus, all that the view I am defending requires is that no tokening by S *now* of "This is green" is to count as "expressing observational knowledge" unless it is also correct to say of S that he *now* knows the appropriate fact of the form *X is a reliable symptom of Y*, namely that (and again I oversimplify) utterances of "This is green" are reliable indicators of the presence of green objects in standard conditions of perception. And while the correctness of this statement about Jones requires that Jones could *now* cite prior particular facts as evidence for the idea that these utterances *are* reliable indicators, it requires only that it is correct to say that Jones *now* knows, thus remembers^{13}, that these particular facts *did* obtain. It does not require that it be correct to say that at the time these facts did obtain he *then knew* them to obtain. And the regress disappears.

Thus, while Jones's ability to give inductive reasons *today* is built on a long history of acquiring and manifesting verbal habits in perceptual situations, and, in particular, the occurrence of verbal episodes, e.g. "This is green," which is superficially like those which are later properly said to express observational knowledge, it does not require that any episode in this prior time be characterizable as expressing knowledge. (At this point, the reader should reread Section 19 above.)

38. The idea that observation "strictly and properly so-called" is constituted by certain self-authenticating nonverbal episodes, the authority of which is transmitted to verbal and quasi-verbal performances when these performances are made "in conformity with the semantical rules of the language," is, of course, the heart of the Myth of the Given. For the *given*, in epistemological tradition, is what is *taken* by these self-authenticating episodes. These 'takings' are, so to speak, the unmoved movers of empirical knowledge, the

{13} (Added 1963) My thought was that one can have direct (non-inferential) knowledge of a past fact which one did not or even (as in the case envisaged) could not conceptualize at the time it was present.

'knowings in presence' which are presupposed by all other knowledge, both the knowledge of general truths and the knowledge 'in absence' of other particular matters of fact. Such is the framework in which traditional empiricism makes its characteristic claim that the perceptually given is the foundation of empirical knowledge.

Let me make it clear, however, that if I reject this framework, it is not because I should deny that observings are *inner* episodes, nor that *strictly speaking* they are *nonverbal* episodes. It will be my contention, however, that the sense in which they are nonverbal -- which is also the sense in which thought episodes are nonverbal is one which gives no aid or comfort to epistemological givenness. In the concluding sections of this paper, I shall attempt to explicate the logic of inner episodes, and show that we can distinguish between observations and thoughts, on the one hand, and their verbal expression on the other, without making the mistakes of traditional dualism. I shall also attempt to explicate the logical status of *impressions* or *immediate experiences*, and thus bring to a successful conclusion the quest with which my argument began.

One final remark before I begin this task. If I reject the framework of traditional empiricism, it is not because I want to say that empirical knowledge has *no* foundation. For to put it this way is to suggest that it is really "empirical knowledge so-called," and to put it in a box with rumors and hoaxes. There is clearly *some* point to the picture of human knowledge as resting on a level of propositions -- observation reports -- which do not rest on other propositions in the same way as other propositions rest on them. On the other hand, I do wish to insist that the metaphor of "foundation" is misleading in that it keeps us from seeing that if there is a logical dimension in which other empirical propositions rest on observation reports, there is another logical dimension in which the latter rest on the former.

Above all, the picture is misleading because of its static character. One seems forced to choose between the picture of an elephant which rests on a tortoise (What supports the tortoise?) and the picture of a great Hegelian serpent of knowledge with its tail in its mouth (Where does it begin?). Neither will do. For empirical knowledge, like its sophisticated extension, science, is rational, not because it has a *foundation* but because it is a self-correcting enterprise which can put *any* claim in jeopardy, though not *all* at once.

IX. SCIENCE AND ORDINARY USAGE

39. There are many strange and exotic specimens in the gardens of philosophy: Epistemology, Ontology, Cosmology, to name but a few. And clearly there is much good sense -- not only rhyme but reason --

to these labels. It is not my purpose, however, to animadvert on the botanizing of philosophies and things philosophical, other than to call attention to a recent addition to the list of philosophical flora and fauna, the Philosophy of Science. Nor shall I attempt to locate this new specialty in a classificatory system. The point I wish to make, however, can be introduced by calling to mind the fact that classificatory schemes, however theoretical their purpose, have practical consequences: nominal causes, so to speak, have real effects. As long as there was no such subject as 'philosophy of science,' all students of philosophy felt obligated to keep at least one eye part of the time on both the methodological and the substantive aspects of the scientific enterprise. And if the result was often a confusion of the task of philosophy with the task of science, and almost equally often a projection of the framework of the latest scientific speculations into the common-sense picture of the world (witness the almost unquestioned assumption, today, that the common-sense world of physical objects in Space and Time must be *analyzable* into spatially and temporally, or even spatiotemporally, related *events*), at least it had the merit of ensuring that reflection on the nature and implications of scientific discourse was an integral and vital part of philosophical thinking generally. But now that philosophy of science has nominal as well as real existence, there has arisen the temptation to leave it to the specialists, and to confuse the sound idea that philosophy is not science with the mistaken idea that philosophy is independent of science.

40. As long as discourse was viewed as a map, subdivided into a side-by-side of sub-maps, each representing a sub-region in a side-by-side of regions making up the total subject matter of discourse, and as long as the task of the philosopher was conceived to be the piecemeal one of analysis in the sense of *definition* -- the task, so to speak, of "making little ones out of big ones" -- one could view with equanimity the existence of philosophical specialists -- specialists in formal and mathematical logic, in perception, in moral philosophy, etc. For if discourse were as represented above, where would be the harm of each man fencing himself off in his own garden? In spite, however, of the persistence of the slogan "philosophy is analysis," we now realize that the atomistic conception of philosophy is a snare and a delusion. For "analysis" no longer connotes the definition of terms, but rather the clarification of the logical structure -- in the broadest sense -- of discourse, and discourse no longer appears as one plane parallel to another, but as a tangle of intersecting dimensions whose relations with one another and with extra-linguistic fact conform to no single or simple pattern. No longer can the philosopher interested in perception say "let him who is interested in prescriptive discourse

analyze its concepts and leave me in peace." Most if not all philosophically interesting concepts are caught up in more than one dimension of discourse, and while the atomism of early analysis has a healthy successor in the contemporary stress on journeyman tactics, the grand strategy of the philosophical enterprise is once again directed toward that articulated and integrated vision of man-in-the-universe -- or, shall I say discourse-about-man-in-all-discourse -- which has traditionally been its goal.

But the moral I wish specifically to draw is that no longer can one smugly say "Let the person who is interested in scientific discourse analyze scientific discourse and let the person who is interested in ordinary discourse analyze ordinary discourse." Let me not be misunderstood. I am not saying that in order to discern the logic -- the polydimensional logic -- of ordinary discourse, it is necessary to make use of the results or the methods of the sciences. Nor even that, within limits, such a division of labor is not a sound corollary of the journeyman's approach. My point is rather that what we call the scientific enterprise is the flowering of a dimension of discourse which already exists in what historians call the "prescientific stage," and that failure to understand this type of discourse "writ large" -- in science -- may lead, indeed has often led to a failure to appreciate its role in "ordinary usage," and, as a result, to a failure to understand the full logic of even the most fundamental, the "simplest" empirical terms.

41. Another point of equal importance. The procedures of philosophical analysis as such may make no use of the methods or results of the sciences. But familiarity with the trend of scientific thought is essential to the *appraisal* of the framework categories of the common-sense picture of the world. For if the line of thought embodied in the preceding paragraphs is sound, if, that is to say, scientific discourse is but a continuation of a dimension of discourse which has been present in human discourse from the very beginning, then one would expect there to be a sense in which the scientific picture of the world *replaces* the common-sense picture; a sense in which the scientific account of "what there is" *supersedes* the descriptive ontology of everyday life.

Here one must be cautious. For there is a right way and a wrong way to make this point. Many years ago it used to be confidently said that science has shown, for example, that physical objects aren't really colored. Later it was pointed out that if this is interpreted as the claim that the sentence "Physical objects have colors" expresses an empirical proposition which, though widely believed by common sense, has been shown by science to be false, then, of course, this claim is absurd. The idea that physical objects aren't colored can make sense only as the (misleading) expression of one aspect of a

philosophical critique of the very framework of physical objects located in Space and enduring through Time. In short, "Physical objects aren't really colored" makes sense only as a clumsy expression of the idea that there are no such things as the colored physical objects of the common-sense world, where this is interpreted, not as an empirical proposition -- like "There are no nonhuman featherless bipeds" -- *within* the common-sense frame, but as the expression of a rejection (in *some* sense) of this very framework itself, in favor of another built around different, if not unrelated, categories. This rejection need not, of course, be a *practical* rejection. It need not, that is, carry with it a proposal to brain-wash existing populations and train them to speak differently. And, of course, as long as the existing framework is used, it will be *incorrect* to say -- otherwise than to make a philosophical point *about the framework* -- that no object is really colored, or is located in Space, or endures through Time. But, *speaking as a philosopher*, I am quite prepared to say that the common-sense world of physical objects in Space and Time is unreal -- that is, that there are no such things. Or, to put it less paradoxically, that in the dimension of describing and explaining the world, science is the measure of all things, of what is that it is, and of what is not that it is not.

43. There is a widespread impression that reflection on how we learn the language in which, in everyday life, we describe the world, leads to the conclusion that the categories of the common-sense picture of the world have, so to speak, an unchallengeable authenticity. There are, of course, different conceptions of just what this fundamental categorial framework is. For some it is sense contents and phenomenal relations between them; for others physical objects, persons, and processes in Space and Time. But whatever their points of difference, the philosophers I have in mind are united in the conviction that what is called the "ostensive tie" between our fundamental descriptive vocabulary and the world rules out of court as utterly absurd any notion that there are no such thing as this framework talks about.

An integral part of this conviction is what I shall call (in an extended sense) the *positivistic conception of science*, the idea that the framework of theoretical objects (molecules, electromagnetic fields, etc.) and their relationships is, so to speak, an *auxiliary* framework. In its most explicit form, it is the idea that theoretical objects and propositions concerning them are "calculational devices," the value and status of which consist in their systematizing and heuristic role with respect to confirmable generalizations formulated in the framework of terms which enjoy a direct ostensive link with the world. One is tempted to put this by saying that according to these philosophers,

the objects of ostensibly linked discourse behave *as if* and *only as if* they were bound up with or consisted of scientific entities. But, of course, these philosophers would hasten to point out (and rightly so) that

X behaves as if it consisted of Y's
makes sense only by contrast with

X behaves as it does because it *does* consist of Y's
whereas their contention is exactly that where the Y's are *scientific* objects,
no such contrast makes sense.

The point I am making is that as long as one thinks that there is a framework, whether of physical objects or of sense contents, the absolute authenticity of which is guaranteed by the fact that the learning of this framework involves an "ostensive step," so long one will be tempted to think of the authority of theoretical discourse as entirely derivative, that of a calculational auxiliary, an effective heuristic device. It is one of my prime purposes, in the following sections, to convince the reader that this interpretation of the status of the scientific picture of the world rests on two mistakes: (1) a misunderstanding (which I have already exposed) of the ostensive element in the learning and use of a language -- the Myth of the Given; (2) a reification of the *methodological* distinction between theoretical and non-theoretical discourse into a *substantive* distinction between theoretical and non-theoretical existence.

44. One way of summing up what I have been saying above is by saying that there is a widespread impression abroad, aided and abetted by a naive interpretation of concept formation, that philosophers of science deal with a mode of discourse which is, so to speak, a peninsular offshoot from the mainland of ordinary discourse. The study of scientific discourse is conceived to be a worthy employment for those who have the background and motivation to keep track of it, but an employment which is fundamentally a hobby divorced from the perplexities of the mainland. But, of course, this summing up won't quite do. For all philosophers would agree that no philosophy would be complete unless it resolved the perplexities which arise when one attempts to think through the relationship of the framework of modern science to ordinary discourse. My point, however, is not that any one would reject the idea that this is a proper task for philosophy, but that, by approaching the language in which the plain man describes and explains empirical fact with the presuppositions of *givenness*, they are led to a "resolution" of these perplexities along the lines of what I have called the positivistic or peninsular conception of scientific discourse -- a "resolution" which, I believe, is not only superficial, but positively mistaken.

X. PRIVATE EPISODES: THE PROBLEM

45. Let us now return, after a long absence, to the problem of how the similarity among the experiences of *seeing that an object over there is red*, *its looking to one that an object over there is red* (when in point of fact it is *not* red) and *its looking to one as though there were a red object over there* (when in fact there is *nothing* over there at all) is to be understood. Part of this similarity, we saw, consists in the fact that they all involve the idea -- the proposition, if you please -- that the object over there is red. But over and above this there is, of course, the aspect which many philosophers have attempted to clarify by the notion of *impressions* or *immediate experience*.

It was pointed out in Sections 21 ff. above that there are *prima facie* two ways in which facts of the form *x merely looks red* might be explained, in addition to the kind of explanation which is based on empirical generalizations relating the color of objects, the circumstances in which they are seen, and the colors they look to have. These two ways are (a) the introduction of impressions or immediate experiences as theoretical entities; and (b) the *discovery*, on scrutinizing these situations, that they contain impressions or immediate experiences as components. I called attention to the paradoxical character of the first of these alternatives, and refused, at that time, to take it seriously. But in the meantime the second alternative, involving as it does the Myth of the Given, has turned out to be no more satisfactory.

For, in the first place, how are these impressions to be described, if not by using such words as "red" and "triangular." Yet, if my argument, to date, is sound, physical objects alone can be literally red and triangular. Thus, in the cases I am considering, there is nothing to be red and triangular. It would seem to follow that "impression of a red triangle" could mean nothing more than "impression of *the sort which* is common to those experiences in which we either see that something is red and triangular, or something merely looks red and triangular, or there merely looks to be a red and triangular object over there." And if we can never characterize "impressions" intrinsically, but only by what is logically a definite description, i.e., as *the kind of entity which* is common to such situations, then we would scarcely seem to be any better off than if we maintained that talk about "impressions" is a notational convenience, a code, for the language in which we speak of how things look and what there looks to be.

And this line of thought is reinforced by the consideration that once we give up the idea that we begin our sojourn in this world with any -- even a vague, fragmentary, and indiscriminating -- awareness of the logical space of particulars, kinds, facts, and resemblances, and

recognize that even such "simple" concepts as those of colors are the fruit of a long process of publicly reinforced responses to public objects (including verbal performances) in public situations, we may well be puzzled as to how, even if there are such things as impressions or sensations, we could come to know that there are, and to know what sort of thing they are. *For we now recognize that instead of coming to have a concept of something because we have noticed that sort of thing, to have the ability to notice a sort of thing is already to have the concept of that sort of thing, and cannot account for it.*

Indeed, once we think this line of reasoning through, we are struck by the fact that if it is sound, we are faced not only with the question "How could we come to have the idea of an 'impression' or 'sensation?'" but by the question "How could we come to have the idea of something's looking red to us," or, to get to the crux of the matter, "of seeing that something is red?" In short, we are brought face to face with the general problem of understanding how there can be *inner episodes* -- episodes, that is, which somehow combine *privacy*, in that each of us has privileged access to his own, with *intersubjectivity*, in that each of us can, in principle, know about the other's. We might try to put this more linguistically as the problem of how there can be a sentence (e.g. "S has a toothache") of which it is *logically* true that whereas *anybody* can use it to state a fact, only *one* person, namely S himself, can use it to make a report. But while this is a useful formulation, it does not do justice to the supposedly *episodic* character of the items in question. And that this is the heart of the puzzle is shown by the fact that many philosophers who would not deny that there are short-term hypothetical and mongrel hypothetical-categorical facts about behavior which others can ascribe to us on behavioral evidence, but which only *we* can *report*, have found it to be logical nonsense to speak of non-behavioral *episodes* of which this is true. Thus, it has been claimed by Ryle^{14} that the very idea that there are such episodes is a category mistake, while others have argued that though there are such episodes, they cannot be characterized in intersubjective discourse, learned as it is in a context of public objects and in the 'academy' of one's linguistic peers. It is my purpose to argue that both these contentions are quite mistaken, and that not only are inner episodes *not* category mistakes, they are quite "effable" in intersubjective discourse. And it is my purpose to show, positively, *how* this can be the case. I am particularly concerned to make this point in connection with such inner episodes as sensations and feelings, in short, with what has -- unfortunately, I think -- been called immediate experience." For such an account is necessary to round off this

{14} Ryle, Gilbert, *The Concept of Mind*. London: Hutchinson's University Library, 1949.

examination of the Myth of the Given. But before I can come to grips with these topics, the way must be prepared by a discussion of inner episodes of quite another kind, namely *thoughts*.

XI. THOUGHTS: THE CLASSICAL VIEW

46. Recent empiricism has been of two minds about the status of *thoughts*. On the one hand, it has resonated to the idea that insofar as there are *episodes* which are thoughts, they are *verbal* or *linguistic* episodes. Clearly, however, even if candid overt verbal behaviors by people who had learned a language *were* thoughts, there are not nearly enough of them to account for all the cases in which it would be argued that a person was thinking. Nor can we plausibly suppose that the remainder is accounted for by those inner episodes which are often very clumsily lumped together under the heading "verbal imagery."

On the other hand, they have been tempted to suppose that the *episodes* which are referred to by verbs pertaining to thinking include all forms of "intelligent behavior," verbal as well as nonverbal, and that the "thought episodes" which are supposed to be manifested by these behaviors are not really episodes at all, but rather hypothetical and mongrel hypothetical-categorical facts about these and still other behaviors. This, however, runs into the difficulty that whenever we try to explain what we mean by calling a piece of *nonhabitual* behavior intelligent, we seem to find it necessary to do so in terms of *thinking*. The uncomfortable feeling will not be downed that the dispositional account of thoughts in terms of intelligent behavior is covertly circular.

47. Now the classical tradition claimed that there is a family of episodes, neither overt verbal behavior nor verbal imagery, which are *thoughts*, and that both overt verbal behavior and verbal imagery owe their meaningfulness to the fact that they stand to these *thoughts* in the unique relation of "expressing" them. These episodes are introspectable. Indeed, it was usually believed that they could not occur without being known to occur. But this can be traced to a number of confusions, perhaps the most important of which was the idea that *thoughts* belong in the same general category as sensations, images, tickles, itches, etc. This mis-assimilation of thoughts to sensations and feelings was equally, as we saw in Sections 26 ff. above, a mis-assimilation of sensations and feelings to thoughts, and a falsification of both. The assumption that if there are thought episodes, they must be immediate experiences is common both to those who propounded the classical view and to those who reject it, saying that they "find no such experiences." If we purge the classical tradition of these

confusions, it becomes the idea that to each of us belongs a stream of episodes, not themselves immediate experiences, to which we have privileged, but by no means either invariable or infallible, access. These episodes can occur without being "expressed" by overt verbal behavior, though verbal behavior is -- in an important sense -- their natural fruition. Again, we can "hear ourselves think," but the verbal imagery which enables us to do this is no more the thinking itself than is the overt verbal behavior by which it is expressed and communicated to others. It is a mistake to suppose that we must be having verbal imagery -- indeed, any imagery -- when we "know what we are thinking" -- in short, to suppose that "privileged access" must be construed on a perceptual or quasi-perceptual model.

Now, it is my purpose to defend such a revised classical analysis of our common-sense conception of thoughts, and in the course of doing so I shall develop distinctions which will later contribute to a resolution, in principle, of the puzzle of *immediate experience*. But before I continue, let me hasten to add that it will turn out that the view I am about to expound could, with equal appropriateness, be represented as a modified form of the view that thoughts are *linguistic* episodes.

XII. OUR RYLEAN ANCESTORS

48. But, the reader may well ask, in what sense can these episodes be "inner" if they are not immediate experiences? and in what sense can they be "linguistic" if they are neither overt linguistic performances nor verbal imagery "*in foro interno*"? I am going to answer these and the other questions I have been raising by making a myth of my own, or, to give it an air of up-to-date respectability, by writing a piece of science fiction -- anthropological science fiction. Imagine a stage in pre-history in which humans are limited to what I shall call a Rylean language, a language of which the fundamental descriptive vocabulary speaks of public properties of public objects located in Space and enduring through Time. Let me hasten to add that it is also Rylean in that although its basic resources are limited (how limited I shall be discussing in a moment), its total expressive power is very great. For it makes subtle use not only of the elementary logical operations of conjunction, disjunction, negation, and quantification, but especially of the subjunctive conditional. Furthermore, I shall suppose it to be characterized by the presence of the looser logical relations typical of ordinary discourse which are referred to by philosophers under the heading "vagueness" and "open texture."

I am beginning my myth *in medias res* with humans who have already mastered a Rylean language, because the philosophical situation it is designed to clarify is one in which we are not puzzled by how

people acquire a language for referring to public properties of public objects, but are very puzzled indeed about how we learn to speak of inner episodes and immediate experiences.

There are, I suppose, still some philosophers who are inclined to think that by allowing these mythical ancestors of ours the use *ad libitum* of subjunctive conditionals, we have, in effect, enabled them to say anything that *we* can say when we speak of *thoughts*, *experiences* (seeing, hearing, etc.), and *immediate experiences*. I doubt that there are many. In any case, the story I am telling is designed to show exactly *how* the idea that an intersubjective language *must* be Rylean rests on too simple a picture of the relation of intersubjective discourse to public objects.

49. The questions I am, in effect, raising are "What resources would have to be added to the Rylean language of these talking animals in order that they might come to recognize each other and themselves as animals that *think*, *observe*, and have *feelings* and *sensations*, as we use these terms?" and "How could the addition of these resources be construed as reasonable?" In the first place, the language would have to be enriched with the fundamental resources of semantical discourse -- that is to say, the resources necessary for making such characteristically semantical statements as "'Rot' means red," and "'Der Mond ist rund' is true if and only if the moon is round." It is sometimes said, e.g., by Carnap{15}, that these resources can be constructed out of the vocabulary of formal logic, and that they would therefore already be contained, in principle, in our Rylean language. I have criticized this idea in another place{16} and shall not discuss it here. In any event, a decision on this point is not essential to the argument.

Let it be granted, then, that these mythical ancestors of ours are able to characterize each other's verbal behavior in semantical terms; that, in other words, they not only can talk about each other's predictions as causes and effects, and as indicators (with greater or less reliability) of other verbal and nonverbal states of affairs, but can also say of these verbal productions that they *mean* thus and so, that they say *that* such and such, that they are true, false, etc. And let me emphasize, as was pointed out in Section 31 above, that to make a semantical statement about a verbal event is not a shorthand way of talking about its causes and effects, although there is a sense of "imply" in which semantical statements about verbal productions do imply information about the causes and effects of these productions.

{15} Carnap, Rudolph, *Introduction to Semantics*. Chicago: University of Chicago Press, 1942.

{16} See "Truth and Correspondence," Part I; also "Empiricism and Abstract Entities" in Paul A. Schilpp (ed.) *The Philosophy of Rudolph Carnap*. Library of Living Philosophers Evanston (Ill.), 1963. (Available in mimeograph from the author.)

Thus, when I say "'*Es regnet*' means it is raining," my statement "implies" that the causes and effects of utterances of "*Es regnet*" beyond the Rhine parallel the causes and effects of utterances of "It is raining" by myself and other members of the English-speaking community. And if it didn't imply this, it couldn't perform its role. But this is not to say that semantical statements are definitional shorthand for statements about the causes and effects of verbal performances.

50. With the resources of semantical discourse, the language of our fictional ancestors has acquired a dimension which gives considerably more plausibility to the claim that they are in a position to talk about *thoughts* just as we are. For characteristic of thoughts is their *intentionality*, *reference*, or *aboutness*, and it is clear that semantical talk about the meaning or reference of verbal expressions has the same structure as mentalistic discourse concerning what thoughts are about. It is therefore all the more tempting to suppose that the intentionality of *thoughts* can be traced to the application of semantical categories to overt verbal performances, and to suggest a modified Rylean account according to which talk about so-called "thoughts" is shorthand for hypothetical and mongrel categorical-hypothetical statements about overt verbal and nonverbal behavior, *and* that talk about the *intentionality* of these "episodes" is correspondingly reducible to semantical talk about the verbal components.

What is the alternative? Classically it has been the idea that not only are there overt verbal episodes which can be characterized in semantical terms, but, *over and above these*, there are certain inner episodes which are properly characterized by the traditional vocabulary of *intentionality*. And, of course, the classical scheme includes the idea that semantical discourse about overt verbal performances is to be analyzed in terms of talk about the intentionality of the mental episodes which are "expressed" by these overt performances. My immediate problem is to see if I can reconcile the classical idea of thoughts as inner episodes which are neither overt behavior nor verbal imagery and which are properly referred to in terms of the vocabulary of intentionality, with the idea that the categories of intentionality are, at bottom, semantical categories pertaining to overt verbal performances. {17}

{17} An earlier attempt along these lines is to be found in "Mind, Meaning and Behavior" in *Philosophical Studies*, 3, pp. 83-94 (1952), and "A Semantical Solution to the Mind-Body Problem" in *Methodos*, 5, pp. 45-84 (1953).

XIII. THEORIES AND MODELS

51. But what might these episodes be? And, in terms of our science fiction, how might our ancestors have come to recognize their existence? The answer to these questions is surprisingly straightforward, once the logical space of our discussion is enlarged to include a distinction, central to the philosophy of science, between the language of *theory* and the language of *observation*. Although this distinction is a familiar one, I shall take a few paragraphs to highlight those aspects of the distinction which are of greatest relevance to our problem.

Informally, to construct a theory is, in its most developed or sophisticated form, to postulate a domain of entities which behave in certain ways set down by the fundamental principles of the theory, and to correlate -- perhaps, in a certain sense to identify -- complexes of these theoretical entities with certain non-theoretical objects or situations; that is to say, with objects or situations which are either matters of observable fact or, in principle at least, describable in observational terms. This "correlation" or "identification" of theoretical with observational states of affairs is a tentative one "until further notice," and amounts, so to speak, to erecting temporary bridges which permit the passage from sentences in observational discourse to sentences in the theory, and vice versa. Thus, for example, in the kinetic theory of gases, empirical statements of the form "Gas *g* at such and such a place and time has such and such a volume, pressure, and temperature" are correlated with theoretical statements specifying certain statistical measures of populations of molecules. These temporary bridges are so set up that inductively established laws pertaining to gases, formulated in the language of observable fact, are correlated with derived propositions or theorems in the language of the theory, and that no proposition in the theory is correlated with a falsified empirical generalization. Thus, a good theory (at least of the type we are considering) "explains" established empirical laws by deriving theoretical counterparts of these laws from a small set of postulates relating to unobserved entities.

These remarks, of course, barely scratch the surface of the problem of the status of theories in scientific discourse. And no sooner have I made them, than I must hasten to qualify them -- almost beyond recognition. For while this by now classical account of the nature of theories (one of the earlier formulations of which is due to Norman Campbell, {18} and which is to be found more recently in the writings

{18} Campbell, Norman, *Physics: The Element*. Cambridge: Cambridge University Press, 1920.

of Carnap,{19} Reichenbach,{20} Hempel,{21} and Braithwaite{22}) does throw light on the logical status of theories, it emphasizes certain features at the expense of others. By speaking of the construction of a theory as the elaboration of a postulate system which is tentatively correlated with observational discourse, it gives a highly artificial and unrealistic picture of what scientists have actually done in the process of constructing theories. I don't wish to deny that logically sophisticated scientists today *might* and perhaps, on occasion, *do* proceed in true logistical style. I do, however, wish to emphasize two points:

(1) The first is that the fundamental assumptions of a theory are usually developed not by constructing uninterpreted calculi which might correlate in the desired manner with observational discourse, but rather by attempting to find a *model*, i.e. to describe a domain of familiar objects behaving in familiar ways such that we can see how the phenomena to be explained would arise if they consisted of this sort of thing. The essential thing about a model is that it is accompanied, so to speak, by a commentary which *qualifies* or *limits* -- but not precisely nor in all respects -- the analogy between the familiar objects and the entities which are being introduced by the theory. It is the descriptions of the fundamental ways in which the objects in the model domain, thus qualified, behave, which, transferred to the theoretical entities, correspond to the postulates of the logistical picture of theory construction.

(2) But even more important for our purposes is the fact that the logistical picture of theory construction obscures the most important thing of all, namely that the process of devising "theoretical" explanations of observable phenomena did not spring full-blown from the head of modern science. In particular, it obscures the fact that not all common-sense inductive inferences are of the form

All observed A's have been B, *therefore (probably)* all A's are B.
or its statistical counterparts, and leads one mistakenly to suppose that so-called "hypothetic-deductive" explanation is limited to the sophisticated stages of science. The truth of the matter, as I shall shortly be illustrating, is that science is continuous with common

{19} Carnap, Rudolph, "The Interpretation of Physics," in H. Feigl and M. Brodbeck (eds.), *Readings in the Philosophy of Science*, pp. 309-18. New York: Appleton-Century-Crofts, 1953. This selection consists of pp. 59-69 of his *Foundations of Logic and Mathematics*. Chicago: University of Chicago Press, 1939.

{20} Reichenbach, H., *Philosophie der Raum-Zeit-Lehre*. Berlin: de Gruyter, 1928, and *Experience and Prediction*. Chicago: University of Chicago Press, 1939.

{21} Hempel, C.G., *Fundamentals of Concept Formation in Empirical Science*. Chicago: University of Chicago Press, 1952.

{22} Braithwaite, R.B., *Scientific Explanation*. Cambridge: Cambridge University Press, 1920.

sense, and the ways in which the scientist seeks to explain empirical phenomena are refinements of the ways in which plain men, however crudely and schematically, have attempted to understand their environment and their fellow men since the dawn of intelligence. It is this point which I wish to stress at the present time, for I am going to argue that the distinction between theoretical and observational discourse is involved in the logic of concepts pertaining to inner episodes. I say "involved in" for it would be paradoxical and, indeed, incorrect, to say that these concepts *are* theoretical concepts.

52. Now I think it fair to say that some light has already been thrown on the expression "inner episodes"; for while it would indeed be a category mistake to suppose that the inflammability of a piece of wood is, so to speak, a hidden burning which becomes overt or manifest when the wood is placed on the fire, not all the unobservable episodes we suppose to go on in the world are the offspring of category mistakes. Clearly it is by no means an illegitimate use of "in" -- though it is a use which has its own logical grammar -- to say, for example, that "in" the air around us there are innumerable molecules which, in spite of the observable stodginess of the air, are participating in a veritable turmoil of episodes. Clearly, the sense in which these episodes are "in" the air is to be explicated in terms of the sense in which the air "is" a population of molecules, and this, in turn, in terms of the logic of the relation between theoretical and observational discourse.

I shall have more to say on this topic in a moment. In the meantime, let us return to our mythical ancestors. It will not surprise my readers to learn that the second stage in the enrichment of their Rylean language is the addition of theoretical discourse. Thus we may suppose these language-using animals to elaborate, without methodological sophistication, crude, sketchy, and vague theories to explain why things which are similar in their observable properties differ in their causal properties, and things which are similar in their causal properties differ in their observable properties.

XIV. METHODOLOGICAL VERSUS PHILOSOPHICAL BEHAVIORISM

53. But we are approaching the time for the central episode in our myth. I want you to suppose that in this Neo-Rylean culture there now appears a genius -- let us call him Jones -- who is an unsung forerunner of the movement in psychology, once revolutionary, now commonplace, known as Behaviorism. Let me emphasize that what I have in mind is Behaviorism as a methodological thesis, which I shall be concerned to formulate. For the central and guiding theme

in the historical complex known by this term has been a certain conception, or family of conceptions, of how to go about building a science of psychology.

Philosophers have sometimes supposed that Behaviorists are, as such committed to the idea that our ordinary mentalistic concepts are *analyzable* in terms of overt behavior. But although behaviorism has often been characterized by a certain, metaphysical bias, it is not a thesis about the *analysis* of *existing* psychological concepts, but one which concerns the construction of new concepts. As a methodological thesis, it involves no commitment whatever concerning the logical analysis of common-sense mentalistic discourse, nor does it involve a denial that each of us has a privileged access to our state of mind, nor that these states of mind can properly be described in terms of such common-sense concepts as believing, wondering, doubting, intending, wishing, inferring, etc. If we permit ourselves to speak of this privileged access to our states of mind as "introspection," avoiding the implication that there is a "means" whereby we "see" what is going on "inside," as we see external circumstances by the eye, then we can say that Behaviorism, as I shall use the term, does not deny that there is such a thing as introspection, nor that it is, on some topics, at least, quite reliable. The essential point about 'introspection' from the standpoint of Behaviorism is that *we introspect in terms of common sense mentalistic concepts*. And while the Behaviorist admits, as anyone must, that much knowledge is embodied in common-sense mentalistic discourse, and that still more can be gained in the future by formulating and testing hypotheses in terms of them, and while he admits that it is perfectly legitimate to call such a psychology "scientific," he proposes, for his own part, to make no more than a heuristic use of mentalistic discourse, and to construct his concepts "from scratch" in the course of developing his own scientific account of the observable behavior of human organisms.

54. But while it is quite clear that scientific Behaviorism is not the thesis that common-sense psychological concepts are *analyzable* into concepts pertaining to overt behavior -- a thesis which has been maintained by some philosophers and which may be called 'analytical' or 'philosophical' Behaviorism -- it is often thought that Behaviorism is committed to the idea that the concepts of a behavioristic psychology must be so analyzable, or, to put things right side up, that properly introduced behavioristic concepts must be built by explicit definition -- in the broadest sense -- from a basic vocabulary pertaining to overt behavior. The Behaviorist would thus be saying "Whether or not the mentalistic concepts of everyday life are definable in terms of overt behavior, I shall ensure that this is true of the concepts that I shall employ." And it must be confessed that

many behavioristically oriented psychologists have believed themselves committed to this austere program of concept formation.

Now I think it reasonable to say that, *thus conceived*, the behavioristic program would be unduly restrictive. Certainly, nothing in the nature of sound scientific procedure requires this self-denial. Physics, the methodological sophistication of which has so impressed -- indeed, overly impressed -- the other sciences, does not lay down a corresponding restriction on its concepts, nor has chemistry been built in terms of concepts explicitly definable in terms of the observable properties and behavior of chemical substances. The point I am making should now be clear. The behavioristic requirement that all concepts should be *introduced* in terms of a basic vocabulary pertaining to overt behavior is compatible with the idea that some behavioristic concepts are to be introduced as *theoretical* concepts.

55. It is essential to note that the theoretical terms of a behavioristic psychology are *not* only not defined in terms of overt behavior, they are also *not* defined in terms of nerves, synapses, neural impulses, etc., etc. A behavioristic theory of behavior is not, as such, a physiological explanation of behavior. The ability of a framework of theoretical concepts and propositions successfully to explain behavioral phenomena is logically independent of the identification of these theoretical concepts with concepts of neurophysiology. What is true -- and this is a logical point -- is that each special science dealing with some aspect of the human organism operates within the frame of a certain regulative ideal, the ideal of a coherent system in which the achievements of each have an intelligible place. Thus, it is part of the Behaviorist's business to keep an eye on the total picture of the human organism which is beginning to emerge. And if the tendency to premature identification is held in check, there may be considerable heuristic value in speculative attempts at integration; though, until recently, at least, neurophysiological speculations in behavior theory have not been particularly fruitful. And while it is, I suppose, noncontroversial that when the total scientific picture of man and his behavior is in, it will involve *some* identification of concepts in behavior theory with concepts pertaining to the functioning of anatomical structures, it should not be assumed that behavior theory is committed *ab initio* to a physiological identification of *all* its concepts, -- that its concepts are, so to speak, physiological from the start.

We have, in effect, been distinguishing between two dimensions of the logic (or 'methodologic') of theoretical terms: (a) their role in explaining the selected phenomena of which the theory is the theory; (b) their role as candidates for integration in what we have called the "total picture." These roles are equally part of the logic, and hence the

"meaning," of theoretical terms. Thus, at any one time the terms in a theory will carry with them as part of their logical force that which it is reasonable to envisage -- whether schematically or determinately -- as the manner of their integration. However, for the purposes of my argument, it will be useful to refer to these two roles as though it were a matter of a distinction between what I shall call *pure theoretical concepts*, and hypotheses concerning the relation of these concepts to concepts in other specialties. What we *can* say is that the less a scientist is in a position to conjecture about the way in which a certain theory can be expected to integrate with other specialties, the more the concepts of his theory approximate to the status of pure theoretical concepts. To illustrate: We can imagine that Chemistry developed a sophisticated and successful theory to explain chemical phenomena before either electrical or magnetic phenomena were noticed; and that chemists developed as pure theoretical concepts, certain concepts which it later became reasonable to identify with concepts belonging the framework of electromagnetic theory.

XV. THE LOGIC OF PRIVATE EPISODES: THOUGHTS

56. With these all too sketchy remarks on Methodological Behaviorism under our belts, let us return once again to our fictional ancestors. We are now in a position to characterize the original Rylean language in which they described themselves and their fellows as not only a *behavioristic* language, but a behavioristic language which is restricted to the *non-theoretical* vocabulary of a behavioristic psychology. Suppose, now, that in the attempt to account for the fact that his fellow men behave intelligently not only when their conduct is threaded on a string of overt verbal episodes -- that is to say, as we would put it when they "think out loud" -- but also when no detectable verbal output is present, Jones develops a *theory* according to which overt utterances are but the culmination of a process which begins with certain inner episodes. *And let us suppose that his model for these episodes* which initiate the events which culminate in overt verbal behavior *is that of overt verbal behavior itself. In other words, using the language of the model, the theory is to the effect that overt verbal behavior is the culmination of a process which begins with "inner speech."*

It is essential to bear in mind that what Jones means by "inner speech" is not to be confused with *verbal imagery*. As a matter of fact, Jones, like his fellows, does not as yet even have the concept of an image.

It is easy to see the general lines a Jonesean theory will take. According to it the true cause of intelligent nonhabitual behavior is

"inner speech." Thus, even when a hungry person overtly says "Here is an edible object" and proceeds to eat it, the true -- theoretical -- cause of his eating, given his hunger, is not the overt utterance, but the "inner utterance of this sentence."

57. The first thing to note about the Jonesean theory is that, as built on the model of speech episodes, *it carries over to these inner episodes the applicability of semantical categories*. Thus, just as Jones has, like his fellows, been speaking of overt utterances as *meaning* this or that, or being *about* this or that, so he now speaks of these inner episodes as *meaning* this or that, or being *about* this or that.

The second point to remember is that although Jones' theory involves a *model*, it is not identical with it. Like all theories formulated in terms of a model, it also includes a *commentary* on the model; a commentary which places more or less sharply drawn restrictions on the analogy between the theoretical entities and the entities of the model. Thus, while his theory talks of "inner speech," the commentary hastens to add that, of course, the episodes in question are not the wagging of a hidden tongue, nor are any sounds produced by this "inner speech."

58. The general drift of my story should now be clear. I shall therefore proceed to make the essential points quite briefly:

(1) What we must suppose Jones to have developed is the germ of a theory which permits many different developments. We must not pin it down to any of the more sophisticated forms it takes in the hands of classical philosophers. Thus, the theory need not be given a Socratic or Cartesian form, according to which this "inner speech" is a function of a separate substance; though primitive peoples may have had good reason to suppose that humans consist of two separate things.

(2) Let us suppose Jones to have called these discursive entities *thoughts*. We can admit at once that the framework of thoughts he has introduced is a framework of "unobserved," "nonempirical," "inner" episodes. For we can point out immediately that in these respects they are no worse off than the particles and episodes of physical theory. For these episodes are "in" language-using animals as molecular impacts are "in" gases, not as "ghosts" are in "machines." They are "nonempirical" in the simple sense that they are *theoretical* -- not definable in observational terms. Nor does the fact that they are, *as introduced*, unobserved entities imply that Jones could not have good reason for supposing them to exist. Their "purity" is not a *metaphysical* purity, but so to speak, a *methodological* purity. As we have seen, the fact that they are not introduced as physiological entities does not preclude the possibility that at a later methodological stage, they may, so to speak, "turn out" to be such. Thus, there are many

who would say that it is already reasonable to suppose that these *thoughts* are to be "identified" with complex events in the cerebral cortex functioning along the lines of a calculating machine. Jones, of course, has no such idea.

(3) Although the theory postulates that overt discourse is the culmination of a process which begins with "inner discourse," this should not be taken to mean that overt discourse stands to "inner discourse" *as voluntary movements stand to intentions and motives*. True, overt linguistic events can be produced as means to ends. But serious errors creep into the interpretation of both language and thought if one interprets the idea that overt linguistic episodes *express* thoughts, on the model of the use of an instrument. Thus, it should be noted that Jones' theory, as I have sketched it, is perfectly compatible with the idea that the ability to have thoughts is acquired in the process of acquiring overt speech and that only after overt speech is well established, can "inner speech" occur without its overt culmination.

(4) Although the occurrence of overt speech episodes which are characterizable in semantical terms is explained by the theory in terms of *thoughts* which are *also* characterized in semantical terms, this does not mean that the idea that overt speech "has meaning" is being *analyzed* in terms of the intentionality of thoughts. It must not be forgotten that *the semantical characterization of overt verbal episodes is the primary use of semantical terms, and that overt linguistic events as semantically characterized are the model for the inner episodes introduced by the theory*.

(5) One final point before we come to the dénouement of the first episode in the saga of Jones. It cannot be emphasized too much that although these theoretical discursive episodes or *thoughts* are introduced as *inner* episodes -- which is merely to repeat that they are introduced as *theoretical* episodes -- they are *not* introduced as *immediate experiences*. Let me remind the reader that Jones, like his Neo-Rylean contemporaries, does not as yet have this concept. And even when he, and they, acquire it, by a process which will be the second episode in my myth, it will only be the philosophers among them who will suppose that the inner episodes introduced for one theoretical purpose--thoughts--must be a subset of immediate experiences, inner episodes introduced for another theoretical purpose.

59. Here, then, is the *dénouement*. I have suggested a number of times that although it would be most misleading to say that concepts pertaining to thinking are theoretical concepts, yet their status might be illuminated by means of the contrast between theoretical and non-theoretical discourse. We are now in a position to see exactly why this is so. For once our fictitious ancestor, Jones, has developed the theory that overt verbal behavior is the expression of thoughts, and

taught his compatriots to make use of the theory in interpreting each other's behavior, it is but a short step to the use of this language in self-description. Thus, when Tom, watching Dick, has behavioral evidence which warrants the use of the sentence (in the language of the theory) "Dick is thinking 'p'" (or "Dick is thinking that p"), Dick, using the same behavioral evidence, can say, in the language of the theory, "I am thinking 'p'" (or "I am thinking that p.") And it now turns out -- need it have? -- that Dick can be trained to give reasonably reliable self-descriptions, using the language of the theory, without having to observe his overt behavior. Jones brings this about, roughly by applauding utterances by Dick of "I am thinking that p" when the behavioral evidence strongly supports the theoretical statement "Dick is thinking that p"; and by frowning on utterances of "I am thinking that p", when the evidence does not support this theoretical statement. Our ancestors begin to speak of the privileged access each of us has to his own thoughts. *What began as a language with a purely theoretical use has gained a reporting role*.

As I see it, this story helps us understand that concepts pertaining to such inner episodes as thoughts are primarily and essentially *intersubjective*, as intersubjective as the concept of a positron, and that the reporting role of these concepts -- the fact that each of us has a privileged access to his thoughts -- constitutes a dimension of the use of these concepts which is *built on* and *presupposes* this intersubjective status. My myth has shown that the fact that language is essentially an *intersubjective* achievement, and is learned in intersubjective contexts -- a fact rightly stressed in modern psychologies of language, thus by B.F. Skinner, {23} and by certain philosophers, e.g. Carnap, {24} Wittgenstein, {25} -- is compatible with the "privacy" of "inner episodes." It also makes clear that this privacy is not an "absolute privacy." For if it recognizes that these concepts have a reporting use in which one is not drawing inferences from behavioral evidence, it nevertheless insists that the fact that overt behavior *is* evidence for these episodes *is built into the very logic of these concepts*, just as the fact that the observable behavior of gases is evidence for molecular episodes is built into the very logic of molecule talk.

{23} Skinner, B.F., "The Operational Analysis of Psychological Terms," *Psychological Review*, 52 (1945):270-77. Reprinted in H. Feigl and M. Brodbeck (eds.), *Readings in the Philosophy of Science*. New York: Appleton-Century-Crofts, 1953: pp. 585-94.

{24} Carnap, Rudolph, "Psychologie in Physicalischer Sprache," *Erkenntnis*, 3 (1933): 107-42.

{25} Wittgenstein, Ludwig, *Philosophical Investigations*. London: Macmillan, 1953

XVI. THE LOGIC OF PRIVATE EPISODES: IMPRESSIONS

60. We are now ready for the problem of the status of concepts pertaining to immediate experience. The first step is to remind ourselves that among the inner episodes which belong to the framework of thoughts will be perceptions, that is to say, seeing that the table is brown, hearing that the piano is out of tune, etc. Until Jones introduced this framework, the only concepts our fictitious ancestors had of perceptual episodes were those of overt verbal reports, made, for example, in the context of looking at an object in standard conditions. Seeing that something is the case is an inner episode in the Jonesean theory which has as its model reporting on looking that something is the case. It will be remembered from an earlier section that just as when I say that Dick reported that the table is green, I commit myself to the truth of what he reported, so to say of Dick that he saw that the table is green is, in part, to ascribe to Dick the idea 'this table is green' and to endorse this idea. The reader might refer back to Sections 16 ff. for an elaboration of this point.

With the enrichment of the originally Rylean framework to include inner perceptual episodes, I have established contact with my original formulation of the problem of inner experience (Sections 22 ff.). For I can readily reconstruct in this framework my earlier account of the *language of appearing*, both *qualitative* and *existential*. Let us turn, therefore to the final chapter of our historical novel. By now our ancestors speak a quite un-Rylean language. But it still contains no reference to such things as impressions, sensations, or feelings -- in short, to the items which philosophers lump together under the heading "immediate experiences." It will be remembered that we had reached a point at which, as far as we could see, the phrase "impression of a red triangle" could only mean something like "that state of a perceiver -- over and above the idea that there is a red and triangular physical object over there -- which is common to those situations in which

he sees that the object over there is red and triangular;

the object over there looks to him to be red and triangular;

there looks to him to be a red and triangular physical object over there."

Our problem was that, on the one hand, it seemed absurd to say that impressions, for example, are theoretical entities, while, on the other, the interpretation of impressions as theoretical entities seemed to provide the only hope of accounting for the positive content and explanatory power that the idea that there are such entities appears to have, and of enabling us to understand how we could have arrived at

this idea. The account I have just been giving of *thoughts* suggests how this apparent dilemma can be resolved.

For we continue the myth by supposing that Jones develops, in crude and sketchy form, of course, a theory of sense perception. Jones' theory does not have to be either well-articulated or precise in order to be the first effective step in the development of a mode of discourse which today, in the case of some sense-modalities at least, is extraordinarily subtle and complex. We need, therefore, attribute to this mythical theory only those minimal features which enable it to throw light on the logic of our ordinary language about immediate experiences. From this standpoint it is sufficient to suppose that the hero of my myth postulates a class of inner -- theoretical -- episodes which he calls, say, *impressions*, and which are the end results of the impingement of physical objects and processes on various parts of the body, and, in particular, to follow up the specific form in which I have posed our problem, the eye.

61. A number of points can be made right away:

(1) The entities introduced by the theory are *states* of the perceiving subject, *not a class of particulars*. It cannot be emphasized too strongly that the particulars of the common-sense world are such things as books, pages, turnips, dogs, persons, noises, flashes, etc., and the Space and Time -- Kant's *Undinge* -- in which they come to be. What is likely to make us suppose that *impressions* are introduced as particulars is that as in the case of thoughts, this ur-theory is formulated in terms of a *model*. This time the model is the idea of a domain of "inner replicas" which, when brought about in standard conditions, share the perceptible characteristics of their physical source. It is important to see that the model is the occurrence "in" perceivers of *replicas*, not of *perceivings of replicas*. Thus, the model for an impression of a red triangle is a *red and triangular replica*, not a *seeing of a red and triangular replica*. The latter alternative would have the merit of recognizing that impressions are not particulars. But, by misunderstanding the role of models in the formulation of a theory, it mistakenly assumes that if the entities of the model are particulars, the theoretical entities which are introduced by means of the model must themselves be particulars -- thus overlooking the role of the commentary. And by taking the model to be *seeing a red and triangular replica*, it smuggles into the language of impressions the logic of the language of thoughts. For seeing is a *cognitive* episode which involves the framework of thoughts, and to take it as the model is to give aid and comfort to the assimilation of impressions to thoughts, and thoughts to impressions which, as I have already pointed out, is responsible for many of the confusions of the classical account of both thoughts and impressions.

(2) The fact that *impressions* are theoretical entities enables us to understand how they can be *intrinsically* characterized -- that is to say, characterized by something more than a *definite description*, such as "entity of *the kind which* has as its standard cause looking at a red and triangular physical object in such and such circumstances" or "entity of *the kind which* is common to the situations in which there looks to be a red and triangular physical object." For although the predicates of a theory owe their meaningfulness to the fact that they are logically related to predicates which apply to the observable phenomena which the theory explains, the predicates of a theory are not shorthand for definite descriptions of properties in terms of these observation predicates. When the kinetic theory of gases speaks of molecules as having *mass*, the term "mass" is not the abbreviation of a definite description of the form "the property which..." Thus, "impression of a red triangle" does not simply mean "impression such as is caused by red and triangular physical objects in standard conditions," though it is true -- *logically* true -- of impressions of red triangles that they are of that sort which is caused by red and triangular objects in standard conditions.

(3) If the theory of impressions were developed in true logistical style, we could say that the intrinsic properties of impressions are "implicitly defined" by the postulates of the theory, as we can say that the intrinsic properties of subatomic particles are "implicitly defined" by the fundamental principles of subatomic theory. For this would be just another way of saying that one knows the meaning of a theoretical term when one knows (a) how it is related to other theoretical terms, and (b) how the theoretical system as a whole is tied to the observation language. But, as I have pointed out, our ur-behaviorist does not formulate his theory in textbook style. He formulates it in terms of a model.

Now the model entities are entities which *do* have intrinsic properties. They are, for example, red and triangular wafers. It might therefore seem that the theory specifies the intrinsic characteristics of impressions to be the familiar perceptible qualities of physical objects and processes. If this were so, of course, the theory would be ultimately incoherent, for it would attribute to impressions -- which are clearly not physical objects -- characteristics which, if our argument to date is sound, only physical objects can have. Fortunately, this line of thought overlooks what we have called the commentary on the model, which qualifies, restricts and interprets the analogy between the familiar entities of the model and the theoretical entities which are being introduced. Thus, it would be a mistake to suppose that since the *model* for the impression of a red triangle is a red and triangular wafer, the impression itself is a red and triangular wafer.

What can be said is that the impression of a red triangle is *analogous*, to an extent which is by no means neatly and tidily specified, to a red and triangular wafer. The *essential* feature of the analogy is that visual impressions stand to one another in a system of ways of resembling and differing which is structurally similar to the ways in which the colors and shapes of visible objects resemble and differ.

(4) It might be concluded from this last point that the concept of the impression of a red triangle is a "purely formal" concept, the concept of a "logical form" which can acquire a "content" only by means of "ostensive definition." One can see why a philosopher might want to say this, and why he might conclude that in so far as concepts pertaining to immediate experiences are *intersubjective*, they are "purely structural," the "content" of immediate experience being incommunicable. Yet this line of thought is but another expression of the Myth of the Given. For the theoretical concept of the impression of a red triangle would be no more and no less "without content" than *any* theoretical concept. And while, like these, it must belong to a framework which is logically connected with the language of observable fact, the logical relation between a theoretical language and the language of observable fact has nothing to do with the epistemological fiction of an "ostensive definition."

(5) The impressions of Jones' theory are, as was pointed out above, states of the perceiver, rather than particulars. If we remind ourselves that these states are not introduced as physiological states (see Section 55), a number of interesting questions arise which tie in with the reflections on the status of the scientific picture of the world (Sections 39-44 above) but which, unfortunately, there is space only to adumbrate. Thus, some philosophers have thought it obvious that we can expect that in the development of science it will become reasonable to identify *all* the concepts of behavior theory with definable terms in neurophysiological theory, and these, in turn, with definable terms in theoretical physics. It is important to realize that the second step of this prediction, at least, is either a *truism* or a *mistake*. It is a truism if it involves a tacit redefinition of "physical theory" to mean "theory adequate to account for the observable behavior of any object (including animals and persons) which has physical properties." While if "physical theory" is taken in its ordinary sense of "theory adequate to explain the observable behavior of physical objects," it is, I believe, mistaken.

To ask how *impressions* fit together with *electromagnetic fields*, for example, is to ask a mistaken question. It is to mix the framework of *molar* behavior theory with the framework of the *micro*-theory of physical objects. The proper question is, rather, "What would correspond in a *micro*-theory of sentient organisms to *molar* concepts

pertaining to impressions?" And it is, I believe, in answer to this question that one would come upon the *particulars* which sense-datum theorists profess to find (by analysis) in the common-sense universe of discourse (cf. Section 23). Furthermore, I believe that in characterizing these particulars, the micro-behaviorist would be led to say something like the following: "It is such particulars which (from the standpoint of the theory) are being responded to by the organism when it looks to a *person* as though there were a red and triangular physical object over there." It would, of course, be incorrect to say that, in the ordinary sense, such a particular is red or triangular. What *could* be said, {26} however, is that whereas in the common-sense picture physical objects are red and triangular but the impression "of" a red triangle is neither red nor triangular, in the framework of this micro-theory, the theoretical counterparts of sentient organisms are Space-Time worms characterized by two kinds of variables: (a) variables which also characterize the theoretical counterparts of *merely* material objects; (b) variables peculiar to sentient things; and that these latter variables are the counterparts in this new framework of the perceptible qualities of the physical objects of the common-sense framework. It is statements such as these which would be the cash value of the idea that "physical objects aren't really colored; colors exist only in the perceiver," and that "to see that the facing surface of a physical object is red and triangular is to *mistake* a red and triangular sense content for a physical object with a red and triangular facing side." Both these ideas clearly treat what is really a speculative philosophical critique (see Section 41) of the common-sense framework of physical objects and the perception of physical objects in the light of an envisaged ideal scientific framework, as though it were a matter of distinctions which can be drawn *within* the common-sense framework itself.

62. This brings me to the final chapter of my story. Let us suppose that as his final service to mankind before he vanishes without a trace, Jones teaches his theory of perception to his fellows. As before in the case of *thoughts*, they begin by using the language of impressions to draw theoretical conclusions from appropriate premises. (Notice that the evidence for theoretical statements in the language of impressions will include such introspectible inner episodes as *its looking to one as though there were a red and triangular physical object over there*, as well as overt behavior.) Finally he succeeds in training them to make a *reporting* use of this language. He trains them, that is, to say "I have

{26} For a discussion of some logical points pertaining to this framework, the reader should consult the essay, "The Concept of Emergence," by Paul E. Meehl and Wilfrid Sellars, in Volume I of the *Minnesota Studies in the Philosophy of Science*, edited by Herbert Feigl and Michael Scriven. Minneapolis: University of Minnesota Press, 1956: pp. 239-52.

the impression of a red triangle" when, and only when, according to the theory, they are indeed having the impression of a red triangle.

Once again the myth helps us to understand that concepts pertaining to certain inner episodes -- in this case *impressions* -- can be primarily and essentially *intersubjective*, without being resolvable into overt behavioral symptoms, and that the reporting role of these concepts, their role in introspection, the fact that each of us has a privileged access to his impressions, constitutes a dimension of these concepts which is *built on* and *presupposes* their role in intersubjective discourse. It also makes clear why the "privacy" of these episodes is not the "absolute privacy" of the traditional puzzles. For, as in the case of thoughts, the fact that overt behavior is evidence for these episodes is built into the very logic of these concepts as the fact that the observable behavior of gases is evidence for molecular episodes is built into the very logic of molecule talk.

Notice that what our "ancestors" have acquired under the guidance of Jones is not just another language" -- a "notational convenience" or "code" -- which merely enables them to say what they can already say in the language of qualitative and existential looking. They have acquired another language, indeed, but it is one which, though it rests on a framework of discourse about public objects in Space and Time, has an autonomous logical structure, and contains an *explanation of*, not just a *code for*, such facts as that *there looks to me to be a red and triangular physical object over there*. And notice that while our "ancestors" came to notice impressions, and the language of impressions embodies a "discovery" that there are such things, the language of impressions was no more tailored to fit *antecedent* noticings of these entities than the language of molecules was tailored to fit antecedent noticings of molecules.

And the spirit of Jones is not yet dead. For it is the particulars of the micro-theory discussed in Section 61 (5) which are the solid core of the sense contents and sense fields of the sense-datum theorist. Envisaging the general lines of that framework, even sketching some of its regions, he has taught himself to play with it (in his study) as a report language. Unfortunately, he mislocates the truth of these conceptions, and, with a modesty forgivable in any but a philosopher, confuses his own creative enrichment of the framework of empirical knowledge, with an analysis of knowledge as it was. He construes as *data* the particulars and arrays of particulars which he has come to be able to observe, and believes them to be antecedent objects of knowledge which have somehow been in the framework from the beginning. It is in the very act of *taking* that he speaks of the *given*.

63. I have used a myth to kill a myth -- the Myth of the Given. But

is my myth really a myth? Or does the reader not recognize Jones as Man himself in the middle of his journey from the grunts and groans of the cave to the subtle and polydimensional discourse of the drawing room, the laboratory, and the study, the language of Henry and William James, of Einstein and of the philosophers who, in their efforts to break out of discourse to an *arche* beyond discourse, have provided the most curious dimension of all.