

## Foundations for a Metaphysics of Pure Process:

### The Carus Lectures of Wilfrid Sellars

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#### I. THE LEVER OF ARCHIMEDES

1. The lever in question is, of course, that with which, provided that an appropriate fulcrum could be found, Archimedes could move the world. In the analogy I have in mind, the fulcrum is the given, by virtue of which the mind gets leverage on the world of knowledge.

2. I have argued at great length and on many occasions that construed as it has been classically construed, this fulcrum no more exists than the phantom which Archimedes desired.

3. In lectures given some twenty years ago, I explored various forms taken by what I called the "myth" of the given. As the years have passed I have had, of course, second and third thoughts on this matter. The views I expressed are so central to my way of thinking that if they were to fall apart the result would be a shambles. Fortunately for my peace of mind -- if nothing else -- these afterthoughts invariably turned out to be variations on the original theme.

4. Yet I have become increasingly aware that as first presented the argument was not without flaws. Relevant distinctions were either not drawn at all, or drawn poorly. Some formulations were at the very least misleading, and, in general, the scope of the concept of the given was ill-defined.

5. In any event, I propose, in this opening lecture, to reformulate and defend some of the characteristic features of my views on the given.

6. Otherwise put, I shall be concerned with a number of issues which lie at the heart of recent controversies over foundationalism in the theory of knowledge. My ultimate aim will be to formulate more clearly than I have hitherto been able to do, the complex interplay in empirical knowledge of the two dimensions which epistemologists have sought to capture by the concepts of the given on the one hand, and of coherence on the other.

7. I shall take as my point of departure a text from Roderick Firth's important paper "[Coherence, Certainty and Epistemic Priority.](#)"<sup>1</sup> It poses with great clarity and distinctness the issues I wish to discuss, and takes a stand which is so eminently sensible that to disagree with it can only be to place it in a larger context which relocates the truth it contains. I have already discussed it on a previous occasion, but my treatment was not sufficiently perceptive. I was puzzled by things which should not have puzzled me, and, in general, failed to put an excellent opportunity to good use. I shall try to make amends.

8. Firth was concerned to explore the contrast between those epistemological theories which stress the "given" and those which stress "coherence." He begins by pointing out that in the context of epistemology a "coherence theory" is either a theory of truth, or of concepts, or of justification, or some blend of these.

9. His central concern is to be with coherence theories of justification. He does, however, pause to comment briefly on what he calls "the coherence theory of concepts." The latter, he notes,<sup>2</sup> "might seem at first sight" to be "incompatible with Lewis's analysis of the 'sense meaning' of statements about physical objects," and even with "the more moderate view of Locke and many other philosophers that some material object predicates (e.g., 'red') can be analyzed by means of simpler predicates (e.g., 'looks red') which we use to describe sense experiences."

10. According to Firth, these philosophers are "assuming that looks red is prior to 'is red', i.e., that it is at least logically possible to have the concept 'looks red' before we acquire the concept 'is red'." He comments that

. . . if the coherence theory of concepts is correct and we can not fully understand "looks red" unless we possess the contrasting concept "is red," then it would seem that it is *not* logically possible to have the concept "looks red" before we have the concept "is red." (P. 547.)

11. Firth refers to the consequent of this conditional as a "paradox," and writes that it "might even lead us to wonder . . . whether the conceptual interdependence of 'looks' and 'is' is enough to undermine Lewis's basic assumption that we can make 'expressive judgments' (e.g., 'I seem to see a doorknob' or 'It looks to me as if I were seeing something red') without at the same time asserting something about 'objective reality'." He points out that

It is these expressive judgments, according to Lewis, that enable us to escape the coherence theory of justification; and if it should turn out that these judgments all make some covert reference to physical objects, then -- depending on the kind of

"covert reference" -- it might no longer be possible to make the epistemological distinction which Lewis requires. (P. 547.)

12. As Firth sees it, however, the above "paradox" is "easily resolved, if we do not confuse concepts with the words used to express them." He argues that the child has a "primitive form of the concept 'looks red'," and that when the child "calls" things 'red', or "applies" the word 'red' to things in the course of learning grown up vocabulary, it is this primitive concept which he is expressing. This primitive concept does not contrast with the concept 'is red', for as yet the child draws no such distinction.

It is [he tells us] a genetic fact, but a fact with philosophical implications, that when a child begins to use the word 'red' with any consistency, he applies it to things which *look* red to him, whether these things are, as we should say, "really red" or whether they are merely made to appear red by abnormal conditions of observation. (P. 547.)

13. Subsequently the child acquires a new concept of 'looks red' which does contrast with 'is red'. We are not, however, to suppose that on doing so he loses the old, or, as I shall put it, ur-concept of 'looks red'. The *expression* 'looks red', indeed, stands for A the new concept, but we can use this expression to "baptize" the "sense experiences" which were (and still are) conceptualizable by the ur-concept.

14. In his previous state the child "consistently identified things that looked red to him," but followed the "semantical rule" of saying "red" when something looked red to him. *Now* he identifies the same situation but can join us in using *language* which involves the contrast between 'it looks red' and 'it is red', and between 'I see a red object' and 'I seem to see a red object', to refer to them.

If [he continues] we do not confuse baptismal rules with semantical rules (e.g., the semantical rule followed by the child who says "red" when something looks red to him) the coherence theory of concepts would not seem to be incompatible with Lewis's theory of meaning and knowledge. (P. 547.)

15. Now these brief Firthian remarks need some unpacking if we are to find out exactly what is going on. I shall therefore attempt a sympathetic exegesis.

16. To begin with, exactly *what* does the child conceive to be the case when he "calls" something red or "applies" the word 'red' to something? One thing seems to be clear. The child has an experience and is conceptually responding to it.

17. The situations in which such "sense experiences" occur are situations which grownups would describe by saying that an object looks red to somebody. The

grownup's language expresses concepts which distinguish between cases in which the object is *really* red and cases in which it *merely* looks red, and between *normal* and *abnormal* circumstances.

18. Grownups use this language to describe the child's perceptual state. Thus, when they say

O *looks red* to Junior

or

Junior has a *something-looks-red-to-him* experience

they are "baptizing" Junior's experience by using phrases which express concepts which Junior does not have, e.g., the concept of looking red which involves the distinctions drawn above. Junior does not yet conceptualize his own experience in these terms. Yet he does make use of some related, if more primitive, concepts.

19. Which? Because of the brevity of Firth's remarks it is not easy to determine exactly what he has in mind. But supplementing what he does say with what he has had to say on other occasions, and taking into consideration the ground he is trying to secure, I believe him to be making something like the following claim:

The child has an ur-concept of an experience of red.

The child has an ur-concept of an object's being responsible for an experience of red.

20. Notice that this claim ascribes *two* ur-concepts to the child. Of these the latter can with some plausibility be characterized as an *ur-concept* of an object's looking red, if we think of the concept which the *grownup* has, and which is expressed by the *grownup* use of the phrase 'looks red', as the concept *is responsible for an experience of red in circumstances which are either normal or abnormal*.

21. For the child would have the concept expressed by *the first part* of the italicized phrase, and hence a concept which would only need to be supplemented by the conceptual distinction between normal and abnormal circumstances to generate the full-fledged adult concept.

22. Now to have the first of the above ur-concepts, i.e., that of an experience of red, obviously requires having *a* concept of red. Furthermore, to have the concept of an experience of red obviously requires having *a* concept of experience. Unfortunately, the word 'experience' is notoriously ambiguous in ways which touch upon the essence of our problem. The same is also true of the genitive phrase 'of red'. I shall not, however, pause to botanize the alternatives these ambiguities make available. Instead, I shall move directly to the one I believe Firth has in mind. Thus, I believe we are to

think of the child as conceiving of *red* as the character of an experience. The child's ur-concept of an expanse of red is the ur-concept of a red experience.<sup>3</sup>

23. To take this line would be to flesh out the child's primitive conceptual apparatus as follows:

The child has an ur-concept of a red experience.

The child has an ur-concept of an object being responsible for a red experience, i.e., of an object's looking red.

24. Having these concepts, the child, in Firth's phrase, "follows the semantical rule" of saying "red" when he believes an object to be responsible for his red experience.

25. Notice that the child's ur-concept of an object's looking red could also be regarded as an ur-concept of an object's *being* red -- that is, if we think of the *adult* concept of *being red* as the concept

would be responsible for an experience of red *whenever looked at in standard conditions*.

As in the previous case, the child's ur-concept would develop into this adult concept when the child acquires the conceptual distinction between normal and abnormal circumstances.

26. It is of particular importance to notice that the child's ur-concept [of an object's being red], i.e., the concept of an object's being responsible for an experience of red, would not, unlike the above adult concept of *being red*, contain a *predictive* component.

27. Yet if Junior's environment is appropriately stable, he can come to believe, to change our example, that if an object is responsible now for an experience of white, it will continue to be so. Thus we can imagine the child to form a richer ur-concept of an object's *being white*, i.e., the concept

would be responsible for an experience of white *whenever looked at*.

28. This concept *would* contain a predictive component, and would be a useful concept provided that white objects continued to present Junior with experiences of white when looked at, or that when they failed to do so, he was able to correlate what he conceives to be a *change of color* (e.g., from being white to being red) with an 'intrinsic physical change, such as that of being covered with red paint, or ripening, as

in the case of apples. Objects would change their color in intelligible ways. A problematic situation would have been resolved.

29. Suppose, however, that instead of this comfortable environment, Junior is perversely exposed to white objects which are successively and randomly illuminated by red, white, blue, etc., lights. With the *original* ur-concept of an object's *being* of a certain color, C, Junior could without puzzlement think of the object as now red (as responsible for an experience of red) and now white (as responsible for an experience of white), etc.

30. But with the *predictive* ur-concept of an object's being C defined in paragraph [27](#), such a sequence of exposures might indeed generate puzzlement. This puzzlement might in its turn be resolved along the lines of paragraph [28](#), if, noticing the change in lighting, the child comes to believe that a change in illumination changes an object's color.

31. Needless to say, this belief would not be without problems of its own. But without pausing to consider them, let us turn our attention to a radically different source of puzzlement. Suppose that Junior has come to "follow the semantical rule" of saying 'C' when he believes that an object is presenting him with a C experience. He will certainly be puzzled if, when the illumination changes from white to red and he now says 'red' the adult says "No! Not *red*, it's still *white*!" The child wouldn't know what to say.

32. The adult suggests "It merely *looks* red; it still *is* white." Obviously, to acquire this new way of talking Junior must learn, as before, the relevance of the changes in lighting. In the previous case we supposed Junior to resolve his puzzlement by coming to think, on his own hook, that a change in lighting brings about a change in an object's color. In the present case, however, the adult has blocked this path.

33. Given the concepts he has available, what can he come to believe about the object which would fit with what his betters have to say? He believes that the object is presenting him with, say, a red experience. He also believes that if the object were white, it would present him with an experience of white. It is the latter belief which must somehow be modified.

34. But surely, we might be inclined to say, Junior has both the resources and the occasion to form the adult concepts *looks C*, *is (really) C*, and *merely looks C*, along the following lines:

O presents me with a C experience. (O looks C.)

O would present me with a C experience, if looked at in white light. (O is really C.)

O presents me with a C experience, but would present me with an experience of another color if looked at in white light. (O merely looks C.)

35. To which we might add that if Junior does indeed form these concepts he is surely within shooting distance of being able to wear the clothes of grownup color talk.

36. Now I think that something like the above account of the child's garden of concepts is lurking in Firth's claim that although the *phrases* '[object] is red', and '[object] looks red' form a *contrastive pair*, each member of which depends for its meaning on its relation to the other, there is a primitive concept of *looks red* which is independent of the concept *is red*.

37. Notice that I implied, in the previous paragraphs but one, that Firth is thinking of the adult's contrastive concepts *is red* and *looks red* as though they were the concepts *is (really) red* and *(merely) looks red*, for he clearly thinks that the adult *also* has a *noncontrastive* concept of O *looks red (to S, at t)* which is essentially the same as the child's ur-concept of an object's looking red. The latter or more primitive concept continues to exist in the richer milieu of adult concepts of the perceptual world. After all, what Firth has been trying to do is to explain how we might overlook this fact.

## II

38. It will be remembered that the purpose of Firth's excursus into child psychology was to defend the idea that we have available a concept pertaining to experiences of red which is independent of the concept of an object's being red. For, he has granted, unless there is such a concept, Lewis's attempt to analyze concepts pertaining to perceptible objects in terms of phenomenal experiences can not get off the ground.

39. Against this, I want to argue that while there is, indeed, a concept pertaining to red which is prior to the pair of contrastive concepts, it is a concept of *is red*. It is not the concept of a *kind* of experience or a *manner* of experiencing, but of something which is an *object*<sup>4</sup> of experience.

40. Furthermore, I want to argue that there is a legitimate sense in which this concept of *is red* is "prior" to the concept of a *physical object's* being red, without being the concept of something *other than* a physical object being red.

41. But before I embark on this enterprise, let me remind you that the Firthian account of the child's conceptual garden hinged on the idea that the child's ur-concept

pertaining to *red* was that of an experience of red, where this was taken to be an item which is (a) an experience, (b) red. We briefly considered the possibility that 'experience' was to be taken in the sense of *experiencing*, so that to have a red experience would be to experience in the red manner, i.e., in the currently fashionable terminology, to sense redly.

42. But why should the child's conceptualization of his sense experience be thought to have the form

[subject] [verb] [verb modifier]

rather than the form of adjectival or, say, sortal predication? The construal of 'red' as an adverb is so obviously a sophisticated theoretical maneuver -- a rational reconstruction -- that it is worth expostulating that if ordinary language contains anything like an expression which does the job of 'redly', it would be the phrase 'of red', a fact which strongly suggests that the root concept expressed by 'red' does *not* have the form of an adverb.

43. Thus the idea that our ur-concept of red is that of a manner of experiencing strikes me as most implausible. I can only account for the fact that philosophers have talked themselves into it by attributing to them the following line of thought

When a child has an experience of the kind which it is useful to baptize by saying that "O looks red to Junior," *what is really going on* is that O is causing Junior to sense redly. Junior is *directly aware* of this sensing redly. Therefore he is aware of it *as* a sensing redly.

44. This line of thought involves the principle

If a person is directly aware of an item which has categorial status C, then the person is aware of it *as* having categorial status C.

This principle is, perhaps, the most basic form of what I have castigated as "The Myth of the Given."

45. If we reject it, we open up the possibility that even if these philosophers are right in thinking that what the child is directly aware of is, from the standpoint of an ideal theory of perceptual consciousness, a state of sensing redly, nevertheless the child forms a concept which has quite a different grammar. *To reject the Myth of the Given is to reject the idea that the categorial structure of the world -- if it has a categorial structure -- imposes itself on the mind as a seal imposes an image on melted wax.*



46. Thus I shall argue that the phenomena can be saved by supposing our basic concept pertaining to red to have the form of a mass term, the predicative concept *is red* having the form *is an expanse of red*.

47. It is most important to note, in view of the systematic grammatical ambiguity of color words, that to make explicit the categorial status of the term 'red' in the phrase 'an expanse of red', the latter should be reformulated as 'an expanse of red *stuff*', where 'stuff' carries with it implications concerning the causal role of determinate portions of stuff in the physical world.

48. If we continue for a moment to put claims about conceptual priority into the language of genetic psychology, we could say that the child's ur-concept of red is not, as such, the concept of a kind of experiencing. If, however, the child also has the concept of *experiencing*, or, shall we say, *awareness*, then the child can conceive of an expanse of red as being experienced, or, to get to the heart of the matter, as an object of awareness.

49. Let me hasten to add as a crucial point, the full significance of which will emerge later, that the awareness I have in mind is to be construed as an awareness of an expanse of red as an expanse of red. It is to be construed, in other words, as, in a sense to be explored, a cognitive awareness. If we think of the child's concept of such an awareness as the ur-concept of *seeing* an expanse of red, we will be construing the concept of seeing as *ab initio* cognitive.

50. If we use these resources to construct an account of the child's conceptual equipment which parallels that which I have attributed to Firth, we would get something like the following:

Junior has an ur-concept of an expanse of red.

Junior has an ur-concept of *seeing* an expanse of red.

Junior has an ur-concept of an object's being responsible for his seeing an expanse of red.

When Junior believes an object to be responsible for his seeing an expanse of red he calls the object 'red'.

51. But what, more precisely, is the child believing about the object when he calls it 'red'? On the Firthian account, the child has the concept of an object, and believes that the object is responsible for a red experience. The experience itself is, presumably, not

a cognitive state. It is simply a state of the perceiver which is red in the basic sense of red.

52. We might be tempted to say, on our alternative approach, that the child believes the object to be responsible for the *existence* of an expanse of red. This, however, would imply that Junior thinks of the *expanse of red* as one item and the *object* as another. But we don't seem to find even the vestige of such a belief in our perceptual experience; though we do find such beliefs in theoretical accounts of perception.

53. I suggest, instead, that we think of Junior as believing that the object is responsible for *his experience of* the expanse of red, i.e., for his *seeing* this expanse *to be an expanse of red*.

54. If, however, Junior does not think of the expanse of red as one item and the physical object as another, how does he conceive them to be related? Why not bite the bullet and say that as far as Junior is concerned, the expanse of red simply is the object.

55. This, of course, won't do as it stands, for it might be taken to imply that the ur-concept of an expanse of red is identical with that of a red object. But unless 'object' is being used in the weak sense of "entity" or "something" it would not be true.

56. Thus if we suppose the child's concept of an *object* to be the ur-concept of a *physical* object, we should rather say that the expanse of red *is* the object for the child, in that he thinks of it as having properties which individuate it and make it belong to some thing-kind or other.

57. If it is remembered that in this context 'red' is equivalent to 'red *stuff*' it will be seen that what is at stake here is the Aristotelian distinction between a mere portion of matter and a material individual substance. In the child's proto-theory of the object, it is volumes of color stuff which are *objects* by virtue of interacting with *other objects* in specific ways and by so impinging on him that they are responsible for the fact that he comes to see them.

58. Thus, if Junior was originally exposed to translucent objects only, we could conceive of him as passing through a stage in which he responded to the portions of color stuff of which he was aware, e.g., cubes of pink, with some such concept as that of a cube of pink which has certain causal properties among which is that of being responsible for his experience of seeing it.

59. Of course, when Junior's experience subsequently broadens, and he encounters opaque objects, he is in a position to distinguish between the object he sees and *what*

*he sees of* the object. At any one time one sees of an opaque object its facing surface, but not its inside or its other sides.

60. Thus whereas the ur-concept of an object's being red would be that of an object's being a volume of red stuff, the concept of an object being red in the *adjectival* sense in which we think of an apple as red although white inside, would be a more complicated notion. Expanses of different colors could be constituents of one and the same object.

61. Given these resources, the alternative to the Firthian account might be fleshed out as follows:

1. Junior has an ur-concept of volumes and expanses of red stuff.
2. Junior has an ur-concept of seeing a volume of red stuff.
3. Junior has an' ur-concept of a physical object as an individuated volume of color stuff which is endowed with certain causal properties.
4. Junior has an ur-concept of seeing a volume or expanse of red stuff not only *as* a volume or expanse of red, but *as* a constituent of a physical object.
5. Junior has an ur-concept of what it is to see *of* a physical object a volume or expanse of red which is one of its constituents. If the constituent is the surface of an opaque object, e.g., an apple, it is *the very redness* of the apple.
6. Junior has an ur-concept of what it is to *see the very redness* of an object.

62. Notice that the above ur-concept of red is prior to the concept *of a physical object's being red*, not in the sense that the redness of physical objects is defined in terms of the ur-redness of something which is not a physical object, but in the sense that the concept of a red physical object is simply that of an individuated volume of red stuff which behaves in generically stuffy ways; and, specifically, in the manner characteristic of a determinate thing-kind.

### III

63. What light does this alternative account of ur-concepts throw on the problem with which we began? It will be remembered that the point of Firth's excursus into child psychology was to explain how (some) philosophers have come to make a mistake about the phenomenology of perceptual consciousness by assuming that the existence at the linguistic level of the contrastive *expressions* 'is red' and 'looks red' and, hence, the possession by the adult language user of the corresponding contrastive *concepts*,

entails that our concepts pertaining to red are essentially contrastive, so that there is no concept of *looks red* which is independent of the concept *is red*.

64. Now I called the concepts listed at the end of the preceding section *ur-concepts* because they, like the ur-concepts of the Firthian alternative, are taken to be "prior to," i.e., conceptually more basic than, the contrast between *physical object (merely) looks red* and *physical object is (really) red*.

65. Notice, however, that whereas the Firthian account explicates this contrast in terms of an ur-concept of red in which it is *experiences* rather than *physical objects* which are red, the ur-concept of red which I have sketched is the concept of a redness which, along with other colors, is the very stuff of which physical objects are made.

66. Thus my ur-concept of red is prior to the concept of a physical object's *being red* only in the sense in which the concept of a slab of marble is prior to the concept of a marble tabletop.

67. Whereas Firth introduces an ur-concept of

physical object looks red

which is prior to the contrast

physical object merely looks red -- physical object is really red

by explicating the former as

physical object is responsible for my red experience

I am committed to the claim that there is an ur-concept of

physical object *is red*

which is prior to the contrast in question, and, therefore, to the concept *looks red*.

How, then, is the latter concept to be introduced?

68. At this point let me abandon the, by no means unuseful framework of armchair child psychology, and, to switch metaphors don the trappings of the phenomenologist. I shall assume, however, that the fruits of the psychologizing are available as phenomenological resources; which is only fair, since Firth's enterprise was from the beginning a project of conceptual analysis into a genetic frame.

69. Now the basic phenomenological fact from which I shall take my point of departure is that when an object looks red to S. and S is, so to speak, "taken in" -- I make this stipulation only to put irrelevancies aside -- S has an experience which is intrinsically like that of seeing the object *to be* red.

70. The experience is intrinsically like that of seeing an object to be red in the sense that if certain additional conditions were realized the experience would in fact be one in which S *sees* an object to be red. Among these conditions are (a) that the object be in fact red; (b) that the object be appropriately responsible for the experience. Let me call such an experience *ostensibly seeing an object to be red*.

71. Now my strategy, in essence, is going to be that of equating

(1) O (at t) looks red to S  
with

(2) S (at t) ostensibly sees O to be red.

In other words I will be putting the concept *looks red* on the level -- not of *is red* -- but rather of *is seen to be red*,<sup>5</sup> or, to put it in a different way, I shall be equating (1) with

(3) S (at t) seems to see O to be red,

where 'seems to see' functions as the ordinary language counterpart of technical 'ostensibly sees'.

72. I qualified the statement of my strategy with the words 'in essence', because I must immediately introduce a *caveat*. It is a familiar fact that

(4) S (at t) sees *that* O is red

entails *neither* 'S sees O' (one can see that a plane is going overhead without seeing the plane), *nor* 'O looks red to S' (knowing that the illumination is abnormal one can see *that* O is white, although it looks red). Now

(5) S (at t) sees O to be red

has the former implication, but not, or at least not clearly, the latter.

73. Thus a moment's reflection suggests that I am confronted by a dilemma. Either (A) I so use

(5) S (at t) sees O to be red  
that it doesn't entail

(1) O (at t) looks red to S

in which case, it would seem,

(2) S (at t) ostensibly sees O to be red

could be true even though (1) were false, which it could not be if my analysis is correct. Or (B) I so use (5) that it *does* entail (1), in which cases it would seem, the analysis is circular.

74. Clearly, I can escape this dilemma only if I can so interpret (5) that it is true only if (1) is true, *without its being the case that (1) is part of the analysis of (5)*.

75. This I do as follows, drawing on the resources of the previous section. According to the account given in paragraph 61,<sup>6</sup> an opaque object (e.g., an apple) is red in the adjectival sense, if it has an expanse of red stuff as an ingredient in the relevant way, thus at the surface. Let us, as suggested there, speak of this expanse of red as the apple's very redness'. And let us so use (5) that it entails

S sees O's very redness.

76. In other words, we now give (5) the sense of

(5') S sees O to be red and, indeed, sees its very redness  
and, correspondingly, (2) the sense of

(2') S ostensibly sees O to be red and, indeed ostensibly sees its very redness.

The promised analysis of the concept of *looks red* can now be formulated by equating (1), i.e.,

O (at t) looks red to S  
with

S (at t) ostensibly sees O to be red and, indeed, ostensibly sees its very redness.

## IV

77. The distinction between *seeing* and *ostensibly seeing* is called for by such facts as that one can have an experience which is intrinsically like seeing a physical object when there is no physical object there, and that one can have an experience which is intrinsically like seeing the *very redness of a physical object* when either no physical object is there to be seen, or the redness which one sees is not the very redness of a physical object.

78. But what is the status of the redness which one sees when it is not the very redness of a physical object? Phenomenologically speaking, the *normal* status of expanses and volumes of color is to be constituents of physical objects. What are we to say of expanses and volumes of color stuff which are *not* constituents of physical objects? Here we must bear in mind what I have had to say about the Myth of the Given. Thus, we must not suppose that if the true theory<sup>7</sup> of the status of expanses and volumes of color stuff is one according to which they have categorial status C, then they present themselves phenomenologically *as having this status*.

79. Thus we should not suppose that if the truth about color expanses and volumes is that they are evanescent objects in a private visual space, then they present themselves as such to one who *scrutinizes* them in an ontological frame of mind; or that if, in truth, they are mental states of sensing cube-of-pink-ly, etc., that they so present themselves.

80. It might be thought that were we to *concentrate* on the expanse or volume of red stuff and ask what it is *in its own right*, we would soon find an unassailable category to which it belongs, that of a *particular*. Now the concept of a particular does indeed belong to a network of concepts of essential concern to metaphysics. But in the absence of a theory with *factual* content, i.e., a theory which characterizes its *objects* in terms of *extra-logical* concepts -- to which I should, perhaps, add *extra-set-theoretical* concepts -- is tacitly presupposed, the concept of a "particular" is the empty or "formal" concept of an ultimate subject of predication, and is of a piece with Kant's unschematized category of substance.

81. The categories to which the entities which form the subject matter of a theory belong are generic features of the concepts of the theory. Categories in general are classifications of conceptual roles. And while the thinnest categories are subject matter independent, categories which are not bloodless are functions of the factual content of theories.

82. To put it bluntly, the fruits of painstaking theory construction in the psychology and neuro-physiology of sense perception cannot be anticipated by screwing up one's mental eye (the eye of the child within us) and "seeing the very manner-of-sensing-ness of a volume of red.

83. I argued in the previous section that there is an ur-concept of red which is prior to the concept of a physical object's being red. This might have been interpreted to mean that there is an ur-concept of red which belongs to a *determinate category* prior to that of the *physical*. On Firth's analysis this would indeed be the case, the ur-category being that of a manner of experiencing.

84. On my account, however, there is no such *determinate* category prior to the concept of red as a physical stuff, as a matter for individuated physical things. We, as phenomenologists, can bracket the concept of an expanse of red in that radical way which involves an abstraction from all those implications involved in its being the concept of something *physical*. But by so abstracting we do not acquire a concept of red which belongs to a more basic *determinate* categorial -- we simply abstract from such determinate categorial status it has, and construe it merely as *a particular having some determinate categorial status or other*. Our phenomenological abstraction no more reveals a new determinate category than the concept of *some color or other* generates the concept of a new shade of red.

85. In the grip of the Myth of the Given, a C. I. Lewis might be tempted to say that to the careful mind the expanse of red presents itself as a *quale*, the latter being the one and only basic category which is above the pragmatic competition of the market place. Did expanses of red present themselves to Peirce as firstness?

86. What should be said, as I see it, is that with respect to color we have no determinate category prior to that of the physical. The latter is our point of departure. We approach the problem of constructing *new forms of concept* pertaining to color not by throwing away concepts of the colors of physical objects, but by transposing our concepts into a new key.

87. Needless to say, when we respond to an expanse of red with a concept of having a new categorial structure, we do not, *eo ipso*, change that to which we are responding. There are items, e.g., expanses of red *sub specie Perceii*, to which we respond is a dimension of givenness (or takenness) which is not in dispute.

88. The one thing we can say, with phenomenological assurance, is that whatever its "true" *categorial* status, the expanse of red involved in an ostensible seeing of the very redness of an apple has *actual existence* as contrasted with the *intentional in-existence* of that which is believed in. But notice that the family of concepts to which *this* contrast belongs consists of *transcendental* concepts, i.e., concepts which apply across *categories*. An expanse of red could be something *actual* and be *either* a sense datum in visual space, a manner of sensing, or a spatial constituent of a physical object.

89. Phenomenology nears the end of its descriptive tether when it points out that when we ostensibly see the very redness of an apple, we see an *actually existing* expanse of red which, if circumstances were normal, would be part of the surface of a physical object, and, indeed, part of its very redness.

90. If circumstances are not normal, we do not have another category than that of the physical to fall back on. All that is available is such transcendentals as *actual*, *something* and *somehow*. The red is something actual which is *somehow* a portion of red stuff, *somehow* the sort of item which is suited to be part of the content of a physical object, but which, though *somehow* that sort of item, is not, in point of fact, a portion of physical stuff.

91. As I put it some years ago, in an essay on perception,<sup>8</sup> "[When one ostensibly sees an object which is red and triangular on the facing side] *something*, in *some* way red and triangular is in *some* way present to the perceiver *other than as thought of*."

92. Its being *somehow* the facing surface of a physical thing is a matter of the fact that in developing a proto-theory to explain the possibility of seeming to see the very redness of a physical object, when no physical object is there to be seen -- or if there is, it has no very redness -- the only available determinate concept in terms of which to grasp the redness which is *somehow* present in the experience, is that of redness as a physical stuff, the redness of physical objects in the spatial-temporal-causal order.



93. The latter concept must serve as the *fundamentum* from which analogical thinking can form a proto-concept of red which has a *new categorial structure*. It does this by forming a proto-theory in which items which satisfy an axiomatics of shape and color play roles which promise to account for the fact in question.

94. Let us call such items 'quasi-expanses of color stuff' or 'quasi-stuffs' for short. Our proto-theory might characterize these quasi-stuffs as states of the perceiver which satisfy an axiomatics of shape and color and which are brought in standard conditions by physical objects which actually consist of volumes of color stuff and, in nonstandard conditions, by physical objects of other colors, or by bodily states with no external cause.

95. Such a state could be, for example, an of-a-cube-of-pink-stuff state, where the genitive phrase of classification encapsulates the process of analogical concept formation.

96. In developing such a theory, a tension inevitably develops between the idea that the quasi-stuffs are functionally dependent on the perceiver, among other things, for their determinate character as, for example, a quasi cube of pink stuff, and the idea that in veridical perception what one is directly aware of is, for example, the very pinkness of a pink ice cube.

97. A natural move by a proto-theory which is uncontaminated by the Myth of the Given would be to hold that in perception items which are in point of fact, for example, quasi cubes of pink stuff (of-a-cube-of-pink-stuff states of a perceiver) are conceptualized (i.e., responded to perceptually) as cubes of pink stuff *simpliciter* having the causal properties of ice.

98. Such a proto-theory, under Cartesian pressures,<sup>2</sup> might develop into a sense datum theory according to which the quasi-stuffs seen are not themselves states of perceivers, though the *seeing* of them is.

99. I shall not stop, on the present occasion, to develop alternative proto-theories of perception and perceptual error. Readers familiar with the literature on the subject can readily do so on their own. Nor shall I embark on the companion task of revising the proto-theory of physical objects to compensate for the removal of the ostensibly seen rednesses, pinknesses, etc., of physical objects from the external world. The histories of scientific realism and of phenomenalism provide excellent sources for this enterprise.

100. Instead, I shall turn my attention to the epistemological views to which Firth's excursus into child psychology was but the briefest prelude. After all, the topic with

which he was essentially concerned was that of perceptual givenness and, in particular, the possibility of a perceptual given which is prior to the contrast between *is red* and *looks red*.

101. Now if one were to suppose that the elaborate account of the child's ur-concept of *looks red* which was constructed in the first two sections of this essay and ascribed to Firth (or at least called Firthian) on the basis of a few scraps of evidence, is related in any simple way to his theory of the perceptual givenness, they would be very much mistaken.

102. Thus it might be thought that what is given in perception is, for example, that one has a red experience, i.e., an experience of the kind which is captured by the child's ur-concept of red. If so, then the "experience," although *conceptualized by* the child would not be in and of itself a conceptual state. It would be an *object* of a conceptual awareness, rather than an *act* of awareness. A red experience, a state of *sensing redly*, is not an awareness of a red item *as a red item*. It may, indeed, be said to be an experience *of* red, where the phrase 'of red' is a genitive of classification, but the expanse is not, as such, an awareness of a red item *as a red item*; it is not, so to speak a classifying awareness.

103. Notice, therefore, that on the Firthian account, the child's ur-concept of *object looking red to me* is not the concept of a *conceptual state*; it is the concepts object's being responsible for his having a red experience, which latter is not a conceptual state.

104. But notice that Firth speaks not only of a concept of *looks red* which is prior to the *contrastive* concepts *is (really) red* and *(merely) looks red*, but also of a concept of *seeming to see* which is prior to the contrastive concepts *I (really) see* and *I (merely) seem to see*.

105. Now Firth *might* be thinking of the ur-concept which we baptize as *Junior's seeming to see a red object* as the same as that which we baptize as *an object's looking red to Junior*. If so, then the ur-concept in question would be the concept of a nonconceptual state in spite of the fact that the word 'see' has a use in which seeing is a conceptual state or at least has a conceptual component.

106. On the other hand, it is barely possible that whether or not he is aware he is doing so, Firth has been led by the intuitive connection between

O looks red to S (at t)  
and

S (at t) seems to see O to be red

which I exploited in *my* analysis of 'looks', to introduce a conceptual element into the experience which the child's ur-concept is *of*.

107. If this is what has happened, then Firth is thinking of the child's ur-concept *looks red* as the concept of an experience which is an experience of a red item *as* a red item and which is, therefore, in part at least *a conceptualizing* experience.

108. In effect, Firth would be ascribing to the child an ur-concept of *seeing a red object as red* which is prior to the contrastive concepts (*really*) *seeing something red as red* and (*merely*) *seeming to see red as red*.

109. Notice that in my first and, until now, dominant interpretation of Firth, I took it for granted that he would not confuse the way in which a sensing redly is an experience *of red* -- by virtue of being an experience of a certain kind, a *red experience* -- with the way in which an experience of red is *of red* by being an awareness of a red item *as* a red item. The latter is clearly a conceptual state, and an experience which has it as a component is, at least in part, a *conceptualizing* experience.

110. Now *if* we were to assume it is "sense experiences" in the former of *nonconceptual* sense which are the "data" of perception then the given to which he appeals in his analysis of perceptual knowledge would be Chisholm's sensings, and Chisholm's argument to the effect that a "criterion" of perceptual knowledge which relies on sensings (supplemented by memory) leads to the "coal pit" of skepticism would have to be taken more seriously than Firth seems to have taken it.

111. Now the very suggestion that Firth might hold this alternative may seem absurd. After all, in his brilliantly argued polemic against sense datum theories<sup>10</sup> he has contrasted the "thickness" and "richness" of what on any reasonable phenomenological account is given in perception, with the thinness and poverty of sense data.

112. Yet one could argue, for example, that what we sense is not *two-dimensional* (though bulgy) expanses of red, but, *even in the case of opaque objects*, tomato shaped *volumes* of color -- color *solids* with variegated internal structure.<sup>11</sup> Furthermore the phenomenon of *synaesthesia* might be appealed to, so that, to return to our pink ice cube, what is sensed is a smooth cubical volume of cool pink (pink coolth).

113. The distinction between what we "really sense" and what is *added* by the imagination would be construed as the result of some form of "perceptual reduction." One could make this move while granting to the sense datum theorist that the

distinction between the *actual* presence of the sensed volume of red and the *conceptual* presence of the tomato *qua* tomato (its intentional inexistence) is of the essence.

114. And, indeed, the distinction between being experienced in the mode of sensing and being experienced in the mode of conceptualization is of crucial epistemological significance.

115. One might be tempted to go so far as to claim, flatly, that the data which support perceptual knowledge claims must be *actual* existents which, so to speak, are present *in their character as actual* rather than as items (like the tomato) which, though they may *in fact* be actual (the tomato may not be hallucinatory), are not present *in their character as actual*.

116. There is clearly something to this expostulation, though, as we shall see, its edge can be turned --not however without taking us to the very heart of the theory of knowledge.

117. In spite of the attractiveness of the above line of thought, I am inclined, at least as a working hypothesis, to ascribe to Firth *something like* the second alternative. I can not make sense of many of his phenomenological insights, unless he is thinking of his ostensible physical objects as (at least in part) experienced in the mode of conceptualization. If so, then to the extent to which ostensible physical objects are the data of perceptual knowledge, the latter would be experienced, at least in part, in the mode of conceptualization.

118. This poses a serious problem which, in one form or another, will be central to the argument which follows. Firth emphasizes the "seamlessness" of ostensible physical objects, i.e., of what there seems to be or what we seem to see. If we take this seamlessness to imply that the perceptual object is not a mixture in which *some* items are experienced in the mode of sensing and *others* in the mode of conceptualization, then we seem forced to choose between saying that what is *given* is what is *sensed*, which would take us back to the first account; and saying that what is *given* is ostensible physical objects simply as *conceived*.

119. The latter alternative might, with caution, and as a first approximation, be expressed as the view that the perceptual given is what is *believed* in perception to be the case, or to exist. One would hasten to add that the believing in question is an occurrent believing of a special kind, perhaps what followers of Cook Wilson have described by phrases as "thinking without question that . . .," and "being under the impression that . . ." Philosophers of perception have, by and large, settled on the verb "to take (something to be the case)," and I shall follow this usage without committing

myself, for the time being, to any particular account of what a taking takes to be the case.

120. Thus, adding the requirement of seamlessness would seem to put Firth in a position of having to choose between: (1) What is given is what is sensed (or, what is the same thing the sensing of it),<sup>12</sup> the given being (perhaps) *accompanied by* and somehow intimately related to a taking; (2) What is given is what is *taken*, the taking being (perhaps) *accompanied by* and somehow intimately related to, a sensing.

121. An example of the former would be the view that what is given is for example, a sensing of a cool smooth cubical volume of pink. This sensing might be accompanied by the perceiver's taking there to be a cube of cool pink ice over there.<sup>13</sup> An example of the latter would be the view that what is *given* is a belief content,<sup>14</sup> thus, *There is a smooth cool pink ice cube over there*. According to this alternative the believing of this content would be accompanied by the smooth cubical volume of cool pink.

122. Note that on the second alternative, to be "given" is a special case of being *believed*, so that, presumably, the given is something which need not be the case.

123. Those who take the first alternative *typically* hold that to be "given" is to be a self-presenting *actuality*. Yet it is possible to find some who hold that even where what is given is a *sensing*, the latter is given by virtue of the fact that the perceiver has a belief with a special content, thus: *I am experiencing<sup>15</sup> a cubical volume of cool pink*.

## V

124. Now it is often thought that the whole point of givenness is that when it is *given* that something is the case, one has an authoritative *awareness* that something is the case -- an awareness which is not just a special case of *believing* something to be the case.

125. Thus many philosophers have distinguished between the "direct apprehension" of a fact, which is not mediated by "ideas" or "concepts," and the thinking or believing which is. A believing, if true, *corresponds to* a fact; and even if it is adequately justified, believing remains at best a second class form of knowledge, as contrasted with direct apprehension.<sup>16</sup>

126. Those who draw this sharp distinction have built a form of foundationalism around it as follows. There is, they argue, a level of beliefs -- basic beliefs, they might be called -- which derive their epistemic authority from the fact that what

they *believe* to be the case has just been, or is being, directly apprehended to be the case. Thus the idea that certain facts, e.g., that one is in a certain occurrent mental state, are directly apprehended, has been brought to explain how certain *beliefs* can have an epistemic authority which is not at a matter of their inferential relation to other *beliefs*.

127. Thus, on *directly apprehending* my occurrent state of believing that Albuquerque is the capital of New Mexico, I may come to *believe* that I occurrently believe Albuquerque to be the capital of New Mexico. This metabelief would acquire its epistemic authority from the direct apprehension of the fact (the first order believing) which makes it true.

128. How the epistemic authority which is built into the concept of direct apprehension is transmitted to the basic belief is by no means clear. Are we to accept a principle to the effect that a belief that-p which occurs in the context of an apprehension that-p has epistemic authority?

129. And what, after all, would be the exact difference between the *authoritative direct apprehension* of the fact that-p and the *justified true belief* that-p which accompanies it?

130. One is inclined to say that direct apprehension involves an existential *confrontation* of the apprehending by that which is apprehended -- whereas in a typical case of true belief there is no confrontation of the believing with that which is believed.

131. But might not the concept of a direct apprehension simply be the concept of a true belief which *confronts* the state of affairs believed?

132. Notice that the concept of direct apprehension was introduced to be the concept of a cognitive act which (a) has intrinsic epistemic authority; (b) involves a direct relationship which I have referred to as "confrontation" with the apprehended state of affairs. The confrontation is supposed to explain the authority.

133. If we refer to the apprehended state of affairs as self-presenting, we can begin to see the outlines of two diverse accounts of the connection between the concepts we have been exploring:

SP-1: A self-presenting state of affairs is a *fact* (an obtaining state of affairs) which (a) belongs to a certain category (usually the category of occurrent mental states), and (b) is, more specifically, to the effect that a certain person is in occurrent mental state f, of which the following is true: that if the person were to query 'Am I in state f?' they

would *directly apprehend* the fact that they were in f. Direct apprehension is a unique cognitive act which is more basic than any believing, no matter how warranted. Direct apprehension is the *fons et origo* of the epistemic authority of *beliefs*.

134. Now it is clear that the proponent of this concept of a self-presenting state need not hold that the beliefs to which direct apprehension give epistemic authority are beliefs in the occurrence of the self-presenting states themselves. It is, he might hold, beliefs with certain *other* contents which acquire authority by virtue of their relation to directly apprehended facts.

135. Thus, on *apprehending* that I ostensibly see a red object in front of me, it may be reasonable for me to *believe* that there is a red object in front of me.

136. Notice that one who takes this line might also hold that if I am in a self-presenting state, I would be *justified in believing* that I am in such a state. But the believing that I am in the state need in and of itself play no indispensable epistemic role. That would be played by the direct apprehension.

137. Thus one who thinks that the believing that one is in a state of the self-presenting kind *does* have an indispensable epistemic role, is likely to have a different concept of what it is to be a self-presenting state, one, indeed, which rejects the idea of an absolute distinction between direct apprehension and belief.

138. According to this new account,

SP-2: A self-presenting state of affairs is one which is such that if the relevant person at the relevant time were to believe it to obtain, the belief would be noninferentially warranted or self-warranting.

139 Notice that this alternative is compatible with the idea that self-presenting states of affairs *need not obtain* (be facts). It is also compatible with the idea that when a self-presenting state of affairs does obtain, it is a factor which contributes to bringing about the occurrent belief *that* it obtains.

140. The distinctive feature of this account is that the self-presentingness of a state of affairs is defined, at least in part, in terms of the "evidentness" or "warrantedness" of the belief that it obtains.

141. On the first account, (SP-1), the self-presenting state is defined in terms of the concept of direct apprehension. A self-presenting state is one which is capable of being directly apprehended. If it is directly apprehended, this apprehension is properly assigned a high degree of epistemic warrant.<sup>17</sup>

142. Now it seems clear to me that Firth rejects the radical distinction between beliefs and direct apprehensions which is central to the first account of self-presenting states. One would expect, therefore, that if he finds a use for a concept of self-presentingness, it would be along the lines of the second alternative, (SP-2). As for Chisholm, I simply do not know what to say -- but on the whole I am inclined to say that he is at least implicitly committed to the first alternative. Let me call such a Chisholm, *chisholm-Descartes*.

## VI

143 At this point it will be worthwhile to pause for a look at a topic which may throw light both on Firth's difficulty in explaining the phenomenological seamlessness of an experience which involves both sensings and takings, and on Chisholm's tendency to espouse the direct apprehension account of self-presentingness.

144. Let us suppose someone to ask: What does the distinction you were drawing between sensing as a *nonconceptual* state and taking as a *conceptual* state really amount to? Why should we not construe sensing-in-a-certain manner as a "special case of" or "in a continuum with" conceiving of an object or state of affairs? For, indeed, if *sensing a cube of pink beyond a cube of blue* were simply a special case of (and, therefore, belonged in the same mentalistic category as) *believing there to be a cube of pink beyond a cube of blue*, then the "seamlessness" which characterizes Firth's ostensible physical objects would be compatible with the idea that the latter are blends of items experienced in the mode of sensing and items experienced in the mode of conceiving.

145. Does the difference between sensing and conceiving consist in the *specifics* of what is sensed? We describe what is sensed in terms of proper and common sensibles, stressing the *determinateness* of what is sensed. (Could there be a merely determinable sensing?) The objects of belief are not so restrictive. Nevertheless we characterize both sensings and takings by a use of the vocabulary in which we describe perceptible states of affairs.

146. Now there is a reasonably straightforward sense in which one can be said to be *aware of* something merely by virtue of believing it to exist, without in any way perceiving it. Thus one who believes in the Straits of Bosphorus can be said to be aware of them. As we speak of the objects of sensation, so we can speak of the objects of belief. Would not the objects of sense and the objects of belief fit together seamlessly, if sensings and believings belong to a common genus -- awareness of something -- and if the terms 'object of sensation' and 'object of belief' fell under a common proximate category?



147. Of course, the Straits of Bosphorus do not stand to the believing in the same way in which, on the adverbial theory, blue stands to the sensation of blue; but we can patch this up by drawing a distinction between the "immanent object" or "content" of the act of belief and the "transcendent" or "actual" object which, in the case of successful belief, is picked out by the belief. And we might well argue that it is the immanent object or content which parallels the object of sensation.

148. And indeed there are many who would be willing to hold an adverbial theory of the immanent object of belief. Propositions are sometimes construed as kinds of believings. To believe that Tom is tall is to believe in the that-Tom-is-tall manner.

149. Sensing a cube of pink is sensing in a certain manner. Believing in a cube of pink ice is believing in a certain manner. How seamless can you get!

150. Yet surely something is wrong. To see what it is, it is necessary to examine in more detail certain points I have been taking to be noncontroversial. (One soon discovers, however, that nothing is noncontroversial. Nothing is ever completely nailed down. Ghosts are never completely laid.)

151. I have been attempting too use the verb 'to sense' in such a way that it both (a) stands for a noncognitive state of a perceiver; (b) has approximately the same meaning as it does for contemporary proponents of the adverbial theory. This, it turns out, is not easy to do.

152. As I have used the term, to sense blue is no more to be aware of something *as* blue (roughly: that something is blue) than to breathe sneezily is to be aware of something as a sneeze. As I have construed this concept of sensing blue, it is an ontological interpretation of what it is for there to be a case of blue, just as the concept of breathing sneeze-ily is an ontological interpretation of what it is for there to be a case of sneezing, i.e., a sneeze.

153. Just as it is logically possible for a sneezing to occur without there being an awareness of the sneezes a sneeze, so it is logically possible for a sensing blue to occur without there being an awareness of a case of blue *as* a case of blue.

154. As I see it, G. E. Moore was almost dead on target when he argued<sup>18</sup> that even if in some sense a case of blue is a blue experience or a blue consciousness, for the case of blue to enter the cognitive or epistemic domain there must also be an experience or consciousness *of* blue. A case of blue may in some justifiable sense be a blue consciousness or a blue awareness, but the case of blue is not in the cognitive or epistemic domain unless one is conscious of or aware of a case of blue.

155. To this I hasten to add that to nail down his point Moore if should have used the more elaborate phrase 'awareness of a case of blue *as* a case of blue'.

156. Thus even if the *esse* of blue is *percipi* in the sense that blue is a manner of sensing, and even if we so use 'awareness' or 'consciousness' that blue is a manner of *being aware* or of *being conscious*, we must be careful not identify the concept of a case of blue with the concept of an awareness of a case of blue *as* a case of blue.

157. If 'sensing' is used as a term for the awareness of a sensible item *as* having a certain sensible character, then it should not also be used for the generic state which stands to bluely as dancing stands to waltzily. Exactly this conflation is aracteristic of much of the literature on the adverbial theory.

158. Now the relevance of all this to Firth's account of the phenomenological seamlessness of perceptual objects is that, as I see it, he is entitled to this seamlessness only if he can succeed in assimilating the manner in which *blue* or *a cube of pink* is involved in a sensation *of blue* or a sensation *of a cube of pink* to the manner in which *a mountain* or *a cube of ice* is involved in the perceptual taking *of a mountain* or *of a cube of ice*. A taking reveals its distinctive character, however, by always being a taking there to be something, a taking something to be somehow, and hence to involve propositional form. The taking expressed by 'this cube of ice' takes something to be a cube of ice. The sensing which accompanies this taking may be *of a cube of pink*, but it is not an awareness of something *as* a cube of pink.

159. The relevance of all this to the previous discussion of self-presenting states is as follows: Suppose that experiences of blue are self-presenting states. If one parses 'experience of blue' as 'case of sensing bluely', then, if one is clear about the above distinction, one will find it possible to take either interpretation of the concept of a self-presenting state, i.e., to hold *either* that for an expanse of blue (a sensing bluely) to be self-presenting is for it to be available for a logically distinct act of direct apprehension (i.e., an apprehension of it *as* a case of blue), *or* that for it to be self-presenting is for it to be available for a logically distinct act of *believing* it to be a case of blue.

160. On the other hand, if one is not clear about the above distinction, and conflates the ontological concept of sensing bluely with the epistemic concept of sensing a blue item *as* blue, then it would seem absurd to suppose that the self-presentingness of an experience of blue involves a logically distinct conceptual act of *believing* it to be a case of blue. The self-presentingness would seem to be internal to the experience itself; the sensing bluely which *is* a case of blue, and which is *not* a case of belief, would nevertheless be in itself an awareness of a case of blue *as* a case of blue; which is the whole point of self-presentingness.<sup>19</sup>

161. Thus one who conflates the ontological and the epistemic concepts of sensing will reject the *belief* interpretation of self-presentingness (SP-2). He will gravitate toward the *direct apprehension* interpretation (SP-1) -- though clarity and distinctness are not to be expected in a position which arises out of a confusion.

162. Chisholm seems to me committed to the idea that if Jones senses blue, there is an actual case of blue -- not, of course, physical blue, but sensible blue. It is an *actual* case because the *esse* of sensible blue is *percipi* (i.e., being sensed). Similarly, if Jones feels a pain, then there is an *actual* pain, even though the *esse* of pain consists in being felt.

163. On the other hand, it is a characteristic feature of things that are conceived, that their *esse* is not *concipi*. 'Someone conceives of a centaur' can not be paraphrased as 'a centaur exists', unless 'exists' is used in the technical (and Pickwickian) sense in which it stands for intentional in-existence.

164. But if I am strongly inclined to think that Chisholm does *not* take sensing to be a special case of conceiving. I have a nagging doubt, a minority inclination to think that he *does*. For it seems to me obvious that in describing sensings, the use of spatial locutions is just as appropriate as the use of color locutions, and that when one senses in a manner appropriately characterized by the use of the expression 'a blue triangle', thus sensing in the *a blue triangle* manner, the blue and the triangle are seamlessly joined and in the same ontological boat. But does Chisholm want to say that when one senses in this manner there is an *actual* case of a triangle, of "sensible" triangularity?

165. As I see it, he *should* be willing to say this, and to argue that the word 'triangle' in this context has a *derivative* meaning which is as *semantically* appropriate to *sensings* as its primary meaning is *semantically* appropriate to *physical objects*.

166. But if this is a correct account of the triangle we sense, it must also be true of its seamless associate, sensed blueness.

167. If, on the other hand, one wishes to deny that when Jones senses a triangle, there is an actual case of a triangle, one way of doing this would be to say that sensing a triangle is a special form of believing there to be a triangle, or of *thinking* of a triangle. A triangle would indeed "in-exist" as the "content" of the thinking or believing -- but so did the Fountain of Youth in the mind of Ponce de Leon. And seamlessness would reappear to remind us that what is sauce for the triangle is sauce for the blue. And what of pain?<sup>20</sup>

168. Now Chisholm holds that sensing blue is a self-presenting state. Is he willing to say that sensing a blue triangle is a self-presenting state? Can states of mind present

themselves in false guises? Does he find sensings of blue triangles to be unproblematic? If so, can he explain the existence of a problem?

## NOTES FOR LECTURE I

1. *The Journal of Philosophy*, 61 (1964).

2. *Ibid.*, p. 546.

3. Or, we should perhaps say, of experiencing redly.

4. Object, that is to say, in that sense of the term in which there is a *real* distinction between the experience (experiencing) and its object, as opposed to the intransitive sense in which a dance is an object danced.

5. Notice that according to this strategy, the concept *looks red* is *ab initio* a *cognitive* concept and, indeed, an *epistemic* concept in that broad sense in which a mental state is epistemic or cognitive, even if it is not as such a *knowing* or *cognizing*, provided that the concept of that state is to be analyzed in terms of propositional form and the concepts of truth and falsity. The term 'cognitive' has long been used in this broad sense in which a judgment or belief would be cognitive fact. I shall not hesitate to make a similar use of 'epistemic'.

6. It will be noted that the account I am giving of physical objects as individuated volumes of color stuff is essentially what I there called the child's proto-theory of the objects of visual perception. This proto-theory is part and parcel of what I have called the Manifest Image of Man in the World. That this essay moves largely within the categories of the Manifest Image must be borne in mind throughout what follows. It must also be borne in mind, however, that it also moves within the framework of a theory of categories which denies the authoritative status of the categories of the Manifest Image, i.e., it works within the framework of a theory of categories which rejects the Myth of the Given.

7. I am well aware that the phrase 'the true theory' will arouse suspicion and resistance. Let me attempt to disarm this reaction by saying that what I have in mind is *the* theory which, whether or not it is ever actually developed, would effectively explain all of the *relevant facts* with which it was *confronted*. The concept of such a theory is obviously a problematic one, the problematic features being indicated by the expressions in italics. Not the least problematic feature is that of uniqueness. That the concept of such a theory is a coherent one would have to be argued, in large part, I presume, by rebutting objections to the contrary. Since, although such arguments are

available, there is no time to canvass them here, I must, I'm afraid, beg the reader to indulge me with a temporary suspension of disbelief.

8. In "The Structure of Knowledge," (the Machette Foundation Lectures [1971] at the University of Texas) in Hector-Neri Castaneda, ed., *Action, Knowledge and Reality: Studies in Honor of Wilfrid Sellars* (Indianapolis: Bobbs-Merrill, 1975). See p. 310.

9. How, it might be asked, can conscious states of a perceiver satisfy an axiomatics of shape? The confusions which stand in the way of a straightforward 'why not?' are the very stuff of perception theory.

10. ["Sense-data and the Percept Theory,"](#) *Mind*, 52 (1949).

11. For a development and defense of such a phenomenological account of sensing see my essay, "The Role of the Imagination in Kant's Theory of Experience," in *Categories: A Colloquium*, Henry W. Johnstone, Jr., ed. (University Park, PA: Penn State Univ. Press, 1978).

12. Remember that in this usage the sensing is not to be construed as a cognitive act of being aware of an item as being of a certain kind or character. The *being given* of the sensing (or, equivalently, what is sensed), on the other hand, would be its being the object of such an awareness.

13. A more subtle form of this view is one according to which although what is given is in point of fact the sensing of a cool smooth cubical volume of pink, we *take* this volume of pink (of which the *esse* is being sensed) to be a *pink ice cube*. Something like this view was held by H. A. Prichard. But to make this move (as we shall see) involves a subtle shift in the concept of what it is to be given. For according to it a sensing can be "given" and yet (mis)taken to be something quite other than a sensing, namely a physical object.

14. Which, it should be noted, need not mean that it is given *as* a belief content.

15. If I had written 'sensing' instead of 'experiencing', I would have aroused the anxieties which hover around the Myth of the Given. The ambiguities of 'experiencing' hold them momentarily at bay.

16. In addition to having first class epistemic status, the direct apprehension of facts has often been regarded as being a primary source of conceptual abilities. One acquires the idea of what it is to be red, the ability to think or believe that there is something red, by virtue of having directly apprehended something to be red.

17. On some accounts, while direct apprehension is the source of the epistemic value of beliefs, it is a "prime mover unmoved" (to borrow Chisholm's useful metaphor) of epistemic authority, in the sense that the direct apprehension of a fact is a source of warrant but itself neither warranted nor unwarranted.

18. "[The Refutation of Idealism](#)," *Mind*, 12 (1903); reprinted in G. E. Moore, *Philosophical Studies* (London: Routledge and Kegan Paul, Ltd., 1922). See pp. 23 ff., particularly p. 26.

19. For an account of the adverbial theory of the relation of blue to the sensation of blue which is guilty of this conflation, see "Moore's Refutation of Idealism," by C. J. Ducasse in *The Philosophy of G. E. Moore*, P. A. Schilpp, ed (Evanston, IL: Library of Living Philosophers, 1942, now published by Open Court, La Salle, IL.) See particularly pp. 245 ff.

20. Perhaps Mary Baker Eddy merely scratched the surface of false ideas.

## II. NATURALISM AND PROCESS

1. In this lecture I propose to explore some fundamental issues concerning the ontology of change and process. As in the first lecture, I shall formulate the argument in terms of the manifest world of middle sized objects, and only later, in the third lecture, draw implications for the finer grained world with which science presents us.
2. The manifest world is primarily a world of things, animate and inanimate, and persons. Things belong to kinds which are characterized by clusters of powers, capacities, dispositions and propensities, or -- to use a general term intended to cover all these, and more -- causal properties. The causality involved is both immanent and transeunt. The paradigm of the former is the lawful development of a closed system; of the latter, the interaction of two sub-systems.
3. The essential feature of causal properties is their "iffyness" -- their analytic connection with subjunctive conditionals. Thus, for an item to be water soluble is for it to be such that, *ceteris paribus*, if it *were* in water it *would* be dissolving.
4. Philosophers have often made use, explicitly or implicitly, of a categorial distinction between iffy or conditional properties, of which solubility is a prime example, and what might be called *pure occurrent<sup>1</sup> properties*, i.e., properties which, although they may be connected with other properties by subjunctive conditionals, do not *consist*, as does solubility, of properties which play the antecedent and consequent roles in a subjunctive conditional, thus *coming to be in water* and *dissolving*.
5. It is a familiar story that this tidy distinction between iffy and non-iffy properties has many problematic features, particularly when it comes to finding examples. Compare the task of finding convincing *examples* of negative properties. These problems are of a piece with that of finding a use for the abstract distinction between statements which are true by virtue of explicit definitions and statements which are true as a matter of empirical fact.
6. Now these specific problems lie outside the scope of this lecture. But since I shall attempt to draw other well-defined distinctions, some methodological cards must be laid on the table.
7. Thus I shall assume, without argument, that philosophical insight is gained, essentially, by confronting discourse about man-in-the-world with tidy, if provisional, conceptual models which we understand because we have constructed them. I shall not, however, attempt to explain the *nature* of this confrontation -- other than to say that it generates the philosophic dialectic -- nor *how* it makes possible the desired insight.

8. I shall content myself with the reflection that few would take strong exception to the *general* thesis, and with the sobering thought that the question as to the *specifics* of how philosophy achieves its goal must still wait on the achievement.

9. Merely to evoke the protean messiness of natural language makes no valid point against the use of well-defined models. Only those who assume the antecedent reality of these models are legitimate targets for this ploy.

10. It is analytic of the dialectical method that the tidiness of conceptual distinctions is *as such* no ground for rejecting them. (That tidiness is, as such, a mark of the provisional is the other side of the coin.) For it is only in terms of a more embracing set of well defined distinctions that they can effectively be challenged, and a more articulated (but still provisional) model achieved.

11. If, therefore, I assume that the tidy distinctions referred to in the opening paragraphs are sound, it is because I suspect that much of the clamor against them amounts to little more than a pseudo-dialectical challenge to the partisans of clarity and distinctness that they pull the leviathan of finished truth out of the ocean of natural language. (Compare Diogenes' challenge to Plato to point to one of his Forms.)

## II

12. I shall shortly be shortly exploring alternatives to the regimented framework of things and persons which I have been adumbrating. But first I must introduce the central topic of this lecture, that of process.

13. The objects of the manifest world change. They are involved in events or happenings. Of course, many of them, much of the time, are stodgy. Whether or not an object is changing, it endures. Endures, that is to say, as long as it exists. For, typically, these objects come into being and pass away.

14. Thus Socrates came into being and passed away. He was also involved in events. Many of the events in which he participated were very complex, and he participated in them along with others. Some were relatively simple, thus the event of Socrates running on a certain summer day in such and such a year. Other objects were clearly involved, but relatively to the manner in which I have referred to it, their role is implicit.

15. The first thing to note, as we approach ontological issues is that there are two ways in which one can express this historical fact about Socrates:



(1) by a simple subject-predicate sentence (with an adverbial modifier),

ran  
Socrates runs at t  
will run

(2) by a counterpart sentence, the subject of which is an event expression

	took place
A running by Socrates at t	is taking place
	will take place

How is the connection between these two locutions to be understood?

16. I propose to construe this relationship as akin to that between

(3) Snow is white

and

(4) Being white is exemplified by snow

and to apply to (2) the type of analysis I have given of (4).

17. The topic of abstract entities is notoriously difficult and controversial. There is no time on the present occasion to be anything but brief and dogmatic. Yet if I cannot elaborate and defend the analysis, I can at least attempt to formulate it as clearly as possible. That this will involve oversimplification is, alas, unavoidable.<sup>2</sup>

18. Roughly put, the gist of the analysis is that the depth grammar of (4) is, in the first instance,

(4<sup>1</sup>) That it is white is true of snow

and, in the second instance,

(4<sup>2</sup>) 'x is white' is true      'snow'/'x'

which tells us, in the regimented language of a grammatical theory, that sentences consisting of an appropriate singular term concatenated with 'is white' are true in case the singular term in question is 'snow'.

19. According to this analysis, then, abstract singular terms formed by the use of such suffixes as 'ity', 'hood', and 'ness', and by such prefixes as 'that' -- as in 'that snow is white' -- and 'being' -- as in 'being white' or 'being triangular' -- are natural language quoting devices.<sup>3</sup>

20. It should also be noted, for future reference, that quoted expressions, thus

'and'

are not to be construed as names. Their surface grammar is, indeed, that of a singular term, as is shown by the fact that they are appropriately followed by a verb in the singular, thus

'and' is a conjunction

But their depth grammar is that of a distributive singular term formed from a sortal, as 'the (a) lion' is formed from 'lion'. Thus, just as

The (a) lion is tawny

tells us that

lions, normally, are tawny

so

The (an) 'and' is a conjunction

tells us that

'and's (normally) are conjunctions.

21. The application of the above strategy to event expressions is reasonably straightforward. Thus,

A running by Socrates is taking place

is to be reconstructed, in first approximation, as

'Socrates runs' is true

and

The coronation of George VI took place

as, in first approximation,

'George VI is being crowned' was true

and, in *second* approximation (cf. paragraph 20)

'George VI is being crowned's were true

where the distributive singular term which occurs in the former has been cashed out into the corresponding general term.

22. This analysis, however, omits the uniqueness condition, by virtue of which 'the coronation of George VI' resembles 'the present king of France'. To capture it we must postulate the presence in the depth grammar of an adverbial modifier such as 'once and only once'. Thus a closer approximation would be

'George VI is being crowned for the first and only time' was true.

23. On this interpretation, 'takes place' and 'occurs' are construed as alethic predicates -- predicates definable in terms of truth. In this respect they belong in the same family as 'exemplifies'; for according to the above line of thought,

Tom exemplifies being tall  
 is to be construed as  
 That he is tall is true of Tom  
 i.e., in first approximation,  
 'x is tall' is true 'Tom'/'x'  
 and, in second approximation, cashing out the distributive singular term,  
 'x is tall's are true 'Tom's'/'x's'

24. Other examples of alethic predicates pertaining to events are 'performed' and 'participated in'. Thus

Socrates performed a running  
 becomes  
 That he runs was true of Socrates  
 i.e.,  
 'x runs' was true 'Socrates'/'x'  
 and

Jones participated in a robbery  
 becomes  
 That he and others jointly robbed a third party was true of Jones  
 i.e.,  
 'x and others jointly robbed a third party', was true 'Jones'/'x'

25. But I am not attempting in this lecture to give a systematic exposition of a theory of event locutions, let alone to defend it against putative counterexamples. I shall simply argue that if something like it is true, interesting light is thrown on ontological topics pertaining to time and process.

26. One of the first points to be noticed and stressed is the tensed character of alethic predication in event contexts. Thus, where 'E' represents an event locution, and 'M' its metalinguistic counterparts we have the equivalences summed up by the following schema

	took
E	is taking place
	will take place
	was true
M	is true
	will be true

27. I have argued elsewhere<sup>4</sup> that tense -- in that broad sense which includes both tensed verbs and such indicator words as 'now' -- is an irreducible feature of temporal discourse. In other words, the temporal aspects of the world cannot be captured by discourse from which all 'tensedness' has been eliminated. I shall not reargue this thesis which, after all, is widely held, on the present occasion. I shall simply take it to be an essential part of the larger story I am trying to tell.

### III

28. Turning now to the ontological implications of the above analysis, the next point to be noticed and stressed is that according to it events are not objects, save in that very broad sense in which anything that can be talked about is an object. Thus the only objects proper involved in Socrates' running are Socrates himself, and such other unproblematic objects as sand and gravel.

29 With a qualification to be considered in the next section, talk about *events* is a way of talking about things changing. Thus there are no events *in addition* to changing things and persons.

30. Another, but closely related, ontological point: *There are no temporal relations*. The key to this point is the fact that relation words are predicates, and are completed into atomic sentences by singular terms, thus

a is next to b.

31. Predicates can be construed as open sentences; but not every open sentence is a predicate. Obvious examples are

... or \_\_\_\_

if ..., then \_\_\_\_

32. Consider, now, certain expressions which are often taken to stand for relations, namely 'before', 'during', 'after', 'while', as in

Socrates ran before he dined

or, to use the example with which I first made this point,<sup>5</sup>

Nero fiddled while Rome burned.

33. The expressions which flank 'before' and 'while' in these examples are not singular terms, but sentences.<sup>6</sup>

34. In the passage referred to in note 5 above, I characterized the above expressions as 'temporal connectives' to emphasize that like the logical connectives they are not relation words. I now think it better to construe them as adverbs, and await an adequate theory of adverbial modifiers for further illumination.<sup>7</sup>

35. Notice that items other than relations can exhibit features which are characteristic of relations, thus *transitivity*, *asymmetry*, *reflexiveness*, and the like. Consider

a is taller than b  
b is taller than c  
Therefore, a is taller than c

If p, then q  
If q, then r  
Therefore, if p then r

S<sub>1</sub> Vd before S<sub>2</sub> Vd  
S<sub>2</sub> Vd before S<sub>3</sub> Vd  
Therefore, S<sub>1</sub> Vd before S<sub>3</sub> Vd

36. In the third syllogism, 'before' exhibits transitivity, although it does not stand for a relation.

37. So far I have discussed the functioning of such words as 'before' in contexts in which they are flanked by such sentences as 'Nero fiddled' and 'Rome burned'. What if we turn our attention to contexts which involve event expressions?

38. Let us turn our attention, therefore, from the sentence

Socrates ran once  
to the event expression  
The running by Socrates

39. If we seize upon the idiomatic

The running by Socrates was before the dining by Socrates  
we might reason as follows. This sentence has the surface form  
(singular term) was before (singular term)  
therefore it is *prima facie* proper to construe *before* in this context -- unlike that of  
Socrates ran once before he dined  
-- as a relation.

40. But if the strategy outlined in paragraphs [18-22](#) is correct, this surface grammar is misleading. The idiomatic sentence in 39 must be replaced by the more perspicuous

The running by Socrates *took place* before the dining by Socrates *took place*.

41. Two comments are in order: (1) -- and most important -- this time 'before' is again flanked by *sentences* rather than singular terms. (2) The singular terms 'the running by Socrates' and 'the dining by Socrates' not only do not flank 'before', they are surface transforms of general terms.

42. The situation is best represented by the sequence -- in the later stages of which the uniqueness condition is ignored --

The running by Socrates was before the dining by Socrates

The running by Socrates took place before the dining by Socrates took place

That he runs was true of Socrates before that he dines was true of Socrates

That Socrates runs was true before that Socrates dines was true

'Socrates runs' was true before 'Socrates dines' was true

'Socrates runs's were true before 'Socrates dines's were true

In the concluding formulation both sources of the original construal of 'before' as a relation word have disappeared, and its role as a temporal connective made manifest.

43. Thus even in the context of explicit event expressions 'before' remains a temporal connective.

44. From this perspective relational theories of time -- taken seriously as such -- involve a category mistake, as does the ontology of events -- the 'objects' introduced to serve as the terms of temporal 'relations' -- which it requires.

45. What we need is a temporal connective theory of time. But this is a goal which can only be adumbrated on the present occasion.

#### IV

46. Yet I am not halfway into my story. Before I can make the crucial points I want to make, more preparation is necessary. I continue to work within the manifest image.

47. We have been dealing with event expressions formed from sentences about changing things. We have been construing expressions of the form

The Ving of S  
as metalinguistic transforms of sentences of the form  
S Vs<sup>8</sup>

48. We now need to note the existence in the manifest framework of verbs which take dummy subjects. Consider

It rains

It thunders

It lightnings

In the case of rain it is not difficult to find an equivalent (though not necessarily synonymous) sentence which has as its subject as unproblematic referring expressions, thus

Rain rained

Drops of water fell

In the other cases this is more difficult. We might try

Thunder thundered

Lightning lightninged

But whereas we could ostensibly cash out 'rain' in terms of 'drops of water', in these cases there seems to be no available referring expressions which have a sense independent of the verbs which are to be predicated of them. We might try

A sound thundered

A flash lightninged

But these seem to raise the same problem all over again, for we are simply moving from the specific to the generic -- from, for example, 'thunder' to 'sound'. We want to understand such noun expressions as

a sound

a flash

as well as such sentences as  
There was lightning

There was a clap of thunder

There was a sound.

49. Instead of addressing this topic directly, I shall sidle into it by considering the account of the processes expressed by these verbs which was offered by a philosopher who has thrown as much light as anybody on problems pertaining to time.<sup>9</sup>

50. Broad introduces the concept of what he calls 'absolute processes', -- which might also be called subjectless (or objectless) events. These are processes, the occurrence of which is, in the first instance, expressed by sentences of the kind we have just been considering, i.e., which either do not have logical subjects or which have dummy logical subjects.

51. In other words, the sentences which give them their primary expression do not have the form

S Vs, e.g., Socrates runs

nor can plausible paraphrases which have genuine logical subjects be found.

52. Notice that 'electrons jumped across the gap' is not to count as, in the desired sense, a paraphrase of 'there was lightning'. We must distinguish between the questions:

Can all statements which are ostensibly about absolute processes be *paraphrased* in terms of changing things?

Granted that some can not, can the absolute processes to which they refer be *explained* in terms of changing things?

53. To give a negative answer to the first question is to grant the existence -- in the manifest image -- of absolute processes. To give an affirmative answer to the second question would seem to commit one to the availability in principle of a scientific account of the world in which all processes are 'reduced', in the sense in which kinetic theory 'reduces' heat to molecular motion, to processes with subjects.

54. Needless to say, to commit oneself to the latter idea is compatible with holding that in some other sense of 'reduce', processes with subjects can be reduced to subjectless processes.



55. Indeed, it might be argued that two theories might have the same factual content -- whatever exactly this means -- and yet one have the 'grammar' of changing things, the other that of absolute processes.

56. All of these questions -- and more -- are clearly buzzing around our heads when we begin to wonder about the relative merits of 'substance' ontologies and 'process' ontologies (to say nothing of 'mixed' ontologies). But these questions do not, as yet, have any clear sense. Still more ground work must be laid.

57. Clearly the first step must be to get a better grip on the concept of an absolute process by considering some ostensible examples.

58. Thus, following Broad, let us consider sounds. Here it is essential to distinguish between the object which produces the sound and the sound produced. To take a well worn example; a bell, when struck by its clapper, produces a familiar kind of sound.

59. When the bell tolls, it produces a sequence of sounds. The *tolling* of the bell belongs to the framework of events examined in the preceding sections. We are now concerned with the 'grammar' of the *sounds* produced.

60. In the manifest image, the volume of pink which is the perceptible core of a pink ice cube is an item out there in the environment which is pink in the occurrent sense. It is also pink in the dispositional sense -- it has the power to bring about experiences of a cube of pink in standard observers in standard conditions. But the primary sense in which pink *occurs* is not that in which experiences of pink occur.

61. Similarly, the sound produced by a middle C<sup>#</sup> tuning fork is a middle C<sup>#</sup> sound. Like the volume of pink, it is out there in the environment. It 'comes from' the tuning fork, and successively 'pervades' concentric regions of space. It is a C<sup>#</sup> sound in the occurrent sense. It is also a C<sup>#</sup> sound in the dispositional sense -- it has the power to bring about experiences of a C<sup>#</sup> sound in standard observers in standard conditions. But, again, the primary sense in which C<sup>#</sup> *occurs* is not that in which experiences of C<sup>#</sup> occur.

62. When the tuning fork sounds, it does so by producing a sound. The sound produced is a process of a specific kind.

63. Now it is characteristic of processes that we speak of them in terms of verbs. Consider a sound of the buzzing kind. Do we mean by the latter phrase *the kind produced by a buzzing* -- where 'buzzing' refers to the activity, for example, of a bee in a way which is conceptually independent of the intrinsic character of the process produced by the buzzing? This is most implausible.

64. It is more plausible to suggest that 'to buzz' in the sense in which we predicate it of bees stands for the kind of activity which produces a characteristic kind of sound -- which can also in another, but related, sense be said to be a buzzing. (We might, using an Aristotelian locution, say that *buzzing*, like *healthy* is said in many ways.)

65. This line of thought suggests that what is primary in the various senses of the verb 'to buzz' is the concept of the intrinsic character of a certain kind of process which can be *identified* in terms of its typical causes. The verb 'to buzz', then, would have a sense in which processes of that intrinsic kind would be buzzings, even when they were not being brought about by one of these typical causes.

66. Thus, in this sense of the verb 'to buzz' we could say that a buzzing is going on without implying that some object, e.g. a bee, is buzzing.

67. We are now in a position to zero in on a key question. What would be the relation between this sense of the verb 'to buzz' and the sortal phrase 'a buzzing'? Consider the two sentences,

There is a buzzing (coming from) over there

It buzzes (from) over there

Which is, 'primary'? Is there any point to picking one out as primary?

68. To switch back to our original example, and, using for simplicity the preposition 'in' rather than the more complicated spatial locutions we have found to be appropriate, consider the sentence,

There is a C<sup>#</sup>ing in the corner

Ostensibly this has the form

(Ex) x is a C<sup>#</sup>ing and x is in the corner

What is the range of the variable 'x', and how are the predications to be understood?

Let us beat about in the neighboring fields.

69. Processes, like tragedies, have beginnings, middles and ends. In the case of absolute processes we can speak of *absolute* coming to be and ceasing to be, because when a sounding, e.g., a C<sup>#</sup>ing, begins, there is nothing which begins -- in the relevant sense -- to sound. (Compare 'sound' in the sense of 'produces sound'.)

70. When, on the other hand, a running begins, it is because someone begins to run.

71. Broad points out<sup>10</sup> that absolute processes can, in a perfectly meaningful sense, be said to change -- meaningful and intelligible, but not easily analyzed. Consider the following situation:

The sounding began as a C<sup>#</sup>ing. It gradually became higher in pitch until it was an E<sup>b</sup> ing. It then suddenly changed into (was followed by?) an Fing.

How do we individuate soundings? Relevant considerations are continuity, spatial location, causality --thus, suppose that the successive stages of the sounding described above came from a single tuning fork with variable pitch.

72. We noticed above that

a running begins <--> someone begins to run

We were not reminded, however, that while this *equivalence* obtains, it does not constitute an identity of sense. For if our original analysis is correct

a Ving began

where 'V' is a verb which takes a proper subject, is to be understood as

That it began to V was true of something

i.e. (where 'INDCON' represents an appropriate category of individual constants)

'x begins to V' was true          INDCON/'x'

73. In other words we must take into account the fact that according to that analysis, 'running' as an event sortal is a metalinguistic nominalization of 'to run', as 'being red' is a metalinguistic nominalization of 'is red'.

74. We argued, therefore, that while, of course, there are events, there *really* are no events, for events are not basic items -- atoms -- in the furniture of the manifest image. This claim was supported by two lines of thought: (a) we can always retreat from statements which involve event locutions, and which ostensibly make a commitment to a domain of events as objects in the world, thus

A running by Socrates took place

to statements which do not, thus

Socrates ran.

75. (b) Since (a), by itself, is compatible with the claim that it is events, rather than things, which are primary, the *dominant* consideration was, according to our analysis, that event locutions belong one step up the semantic ladder and refer to linguistic or conceptual items, rather than to items in the world.<sup>11</sup>

76. At this point, parity suggests that we construe the phrase 'a C<sup>#</sup>ing' as a metalinguistic nominalization of the verb 'to C<sup>#</sup>' as we have construed 'a coronation' as a metalinguistic nominalization of 'to crown or be crowned'.

77. A strong consideration in favor of making this move is the fact that 'a C<sup>#</sup>ing' fits as snugly as does 'a coronation' into the context

. . . is taking place

and its cousins '. . . is going on', and '. . . is occurring'. Here also these alethic predicates would take metalinguistic subjects.

78. If we make this move, then

A C<sup>#</sup>ing is taking place in the corner

would have the same general form as

A coronation is taking place in London

and if the latter has the depth grammar

That someone is crowning someone *there* is true of London

i.e.,

'Someone is crowning someone in x' is true      'London'/'x'

the former would have the form

That it C<sup>#</sup>s there is true of the corner

i.e.,

'It C<sup>#</sup>s in x' is true      'the corner'/'x'

79. If so, then in the sense in which coronations are only ostensible objects -- as contrasted with crowns, bishops and Kings -- so C<sup>#</sup>ings would be only ostensible objects . . . *as contrasted with what?!*

## V

80. To heighten the drama lurking in this question, a little stage setting is in order. We have been working within the manifest image, a framework in which the primary objects endure through change and belong to kinds, the criteria for belonging to which are, largely, conditional properties. It is time that we consider an alternative framework.

81. The alternative I have in mind takes its point of departure from the logical atomisms of the 20s and 30s, when the impact of *Principia Mathematica* on the supersaturated state of philosophy seemed to many to precipitate out the very structure of the world.

82. Logical atomism is essentially an ontological perspective. It has implications for epistemology and semantics, but they do not concern us here.

83. The atomist asks us to consider a domain of basic objects -- basic in the sense that they are non-composite, having no actual as opposed to virtual, parts. All other objects are wholes which consist of these 'atoms', which are, in the mereological sense, their 'parts'.

84. The ontological intuitions of the atomists are not easy to make concrete by means of examples. They present a regulative ideal which serves as a bed of Procrustes on which putative examples are pulled into shape.

85. It will be sufficient for our initial purposes to follow the lead of the neutral monists, who sought to eliminate metaphysical and epistemological puzzles by reducing all objects to patterns or complexes of sensibilia. Their slogan might well have been: Of course there are minds and material things. But there *really* are no minds or material things; for neither minds nor material things are among the ultimate constituents -- sensibilia -- of which all things are made.

86. In effect, they proposed that we view the statements in which we describe the manifest world of changing things as capable of correlation with logically complex statements in a language of which the basic statements ascribe qualities and relations to sensibilia.

87. Roughly, statements of the form

S is a K

S is P

S is V

where 'S' refers to changeable things and 'K', 'P' stand for kinds, properties and activities of changeable things, would be correlated with statements (needless to say, of enormous complexity) of which the individual variables range over sensibilia, and of which the predicate stands for qualities of and relations between sensibilia.

88. The story is a familiar one. I evoke it only to make the point that the *subjunctive* dimension of the conditional properties of the objects of the manifest image would be correlated with lawlike truths involving patterns of basic objects, thus,

If there *were* to be a pattern,  $P_i$ , at  $s$ ,  $t$  there *would* be a pattern,  $P_j$ , at  $s'$ ,  $t'$

89. *Basic* objects would not have *basic* properties of the form

If  $x$  were  $f$ ,  $x$  would be  $y$

and the basic *kinds* of the framework, unlike those of the manifest image, would not have such properties as their criteria.

90. Notice, however, that basic kinds might very well have *subjunctive* criteria -- these, however, would concern uniformities in the co-occurrence of basic objects of certain kinds with basic objects of other kinds.

91. There would, so to speak, be no potentialities *in* basic objects.

92. A final point, for future reference, before we put this 'alternative' framework to use. The correlations of which we have been speaking between statements in the two frameworks need not be viewed as offering *analysis* of manifest statements, i.e., as preserving sense.

93. As a not unrelated point, it should be noticed that to 'identify' manifest water with volumes of  $H_2O$  is not to *analyze* statements about water into statements about  $H_2O$ .

94. Nor is it (more than superficially) to establish a correlation between manifest water and its observable properties on the one hand, and  $H_2O$  and its theoretical properties on the other.

95. It is rather to say that the one framework is, with appropriate adjustments in the larger context, *replaceable* by the by other -- *eliminable* in favor of the other. The replacement would be justified by the greater explanatory power of the new framework.

96. Logical atomists might similarly claim that the correlations of which they speak are to be viewed as a possible replacement of the manifest image by a framework having the ontological texture of their regulative ideal. This replaceability (in principle) would be justified by a concilience of metaphysical considerations.

## VI

97. I ended the previous section but one by pointing out that if my argument is sound, "then, in the sense in which coronations are only ostensible objects -- as contrasted with crowns, bishops and kings -- so  $C^{\#}$ ings would be only ostensible objects . . . ." I went on to ask "*as contrasted with what?*"

98. If we now view C<sup>#</sup>ings in the light of our envisaged neutral monism, we might be tempted to say that even if C<sup>#</sup>ings are not objects proper, nevertheless the larger framework does, at least, include such genuine objects as

rectangular expanses of red  
and  
cubical volumes of pink

99. If, however, we take the, at first sight<sup>12</sup> radical step of construing *all* the "atoms" of our neutral monist model as absolute processes, we begin to be puzzled indeed.

100. Thus, if we make this move, expanses of red would be (to use a word coined by John Wisdom in the early 30s) *reddings*. Thus

There is an expanse of red over there  
would point to  
It reds over there  
just as, according to the account given in [Section IV](#) above,  
There is a C<sup>#</sup>ing in the corner  
points to  
It C<sup>#</sup>s in the corner

101. Indeed

There is a rectangular expanse of red over there  
would point to  
It rectangularly (!) reds over there  
for the former's (noun modifier)-(noun) structure is being construed as a transformation of a depth structure in which what is modified is the verb 'reds', and in which the modifier is, therefore, in the broad grammatical sense, an adverb.

102. We suddenly see that the world we have been constructing is one in which every basic state of affairs is expressed by the use of verbs and adverbs.

103. The idea has fascinating implications. Indeed, we have in barest outline a truly heracleitean ontology. *panta rei*. There are no *objects*. The world is an ongoing tissue of goings on.

104. Needless to say, the concept of an ontology without *objects* is; as the term ontology is currently used, an incoherent one. But perhaps it is our concept of ontology which needs to be revised.

105. Of course a platonist (or neo-pythagorean) like Quine can always console himself with the idea that ontology as currently conceived is not empty, because there are *abstract* objects -- sets, sets of sets, and so on without end. And other ontologists will rejoice in their platonic Forms -- the domain of attributes, propositions, and possible worlds without end.

106. But those of us who are nominalists must rethink our conception of the task of ontology if we are to follow the heracleitean path.

107. Of course, if one so uses the term 'object' that every basic item is an object, absolute processes would be objects.

108. But this move would have to be supported by a theory of the categories. Otherwise, to rest in the idea that absolute processes are *basic entities* and *therefore* objects, would be to paper over the problems posed by the distinctive grammar of process sentences.

109. One gains a new sense of the importance of the scholastic distinction between *categories* and *transcendentals*, and begins to find new power in the idea of ontology as the theory of being *qua* being.

110. Notice that to agree with Heracleitus that all things<sup>13</sup> flow, nothing abides, is not to agree with the Heracleitus -- Protagoras constructed with tongue in cheek by Plato. For, as we have seen, we are not committed to the absurd view that everything always changes in all respects. There are constancies in the flux.

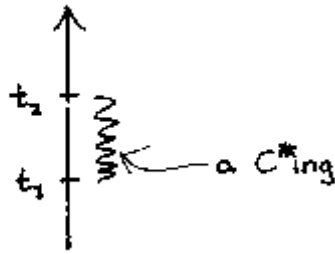
## VII

111. I shall conclude this lecture with some variations on themes from Bergson, and, in particular, on the sin of spatializing time.

112. To get things underway, let me ask: Do C<sup>#</sup>ings have duration as an expanse of red has extensity? In a sense the answer is obviously yes. In a deeper sense it is not so obvious.

113. Let me rephrase the question. Is there an entity in the world which has the property of lasting from  $t_1$  to  $t_2$ ? Consider the following:





This diagram says something which may very well be true. But are C#ings items 'in the world'? Not if our argument to date is correct.

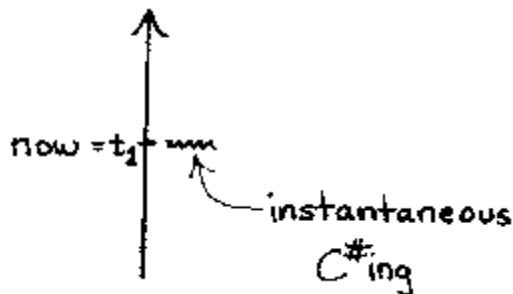
114. We considered earlier ([paragraph 71](#)) a sounding which went through several phases: A C#ing, an E<sup>b</sup>ing, an Fing.

115. What of one unchanging sounding; A C#ing which remains the same and which, we are tempted to say, endures?

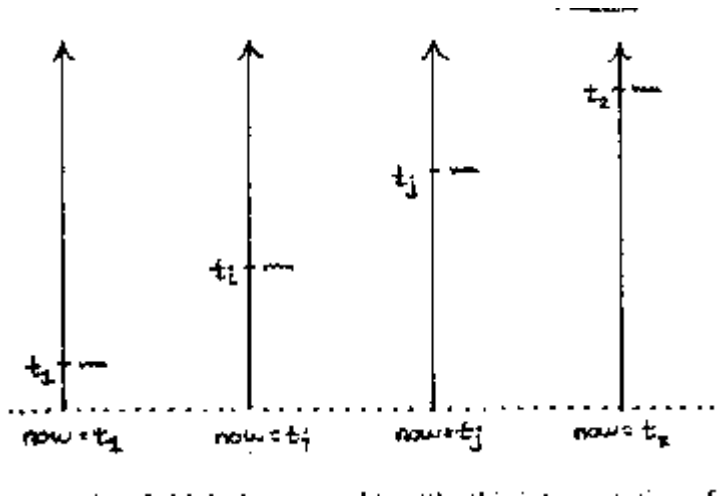
116. We can easily be tempted to think of the C#ing as a series of homogeneous phases, each of which begins to be and ceases to be.

117. We are also haunted by Plato's reference to the heracleitean world as the domain of that which always becomes and never is.

118. We are tempted to ask: Is, perhaps, the only item pertaining to our C#ing which exists at any one time an *instantaneous* C#ing?



119. Indeed, should we not construe the diagram in [paragraph 113](#) above as a conflation of a continuous series of diagrams?<sup>15</sup>



120. Now I think that *something like* this interpretation of the diagram is correct. It is not, however, as I see it, a perspicuous representation of the *ontology* of the situation.

121. Instantaneous  $C^{\#}$ ings are to be construed not as building blocks in the world, but rather as *entia rationis* tailored to fit the *entia rationis* which are instants.

122. The underlying truth is that the *ongoingness* of absolute process requires the idea of *continuous* coming to be and ceasing to be.

123. But I do not think it correct to *equate* the continuity of this coming to be and ceasing to be with the mathematical continuity of a continuous series of instantaneous entities -- anymore than I think that the spatial continuity of an expanse of red is to be equated with that of a continuous array of punctiform instances of red.

124. What is required is an account of this continuity which posits neither instantaneous processes *nor* (*pace* Whitehead) processes which are entities such that it is a rock bottom *ontological* truth that they have a finite duration.

125. For, as might have been expected, I would insist on construing sentences of the form

(process) has (duration)

as counterparts at the metalinguistic level of object language sentences involving process verbs and such adverbial modifiers as 'before', 'while', and 'after'.<sup>17</sup>

126. But the task of doing this for sentences of the form

(process) begins to be

is, as far as I am concerned, music of the future. We can trace it to such sentences as

It begins to C<sup>#</sup> in the corner

but where do we go from there?

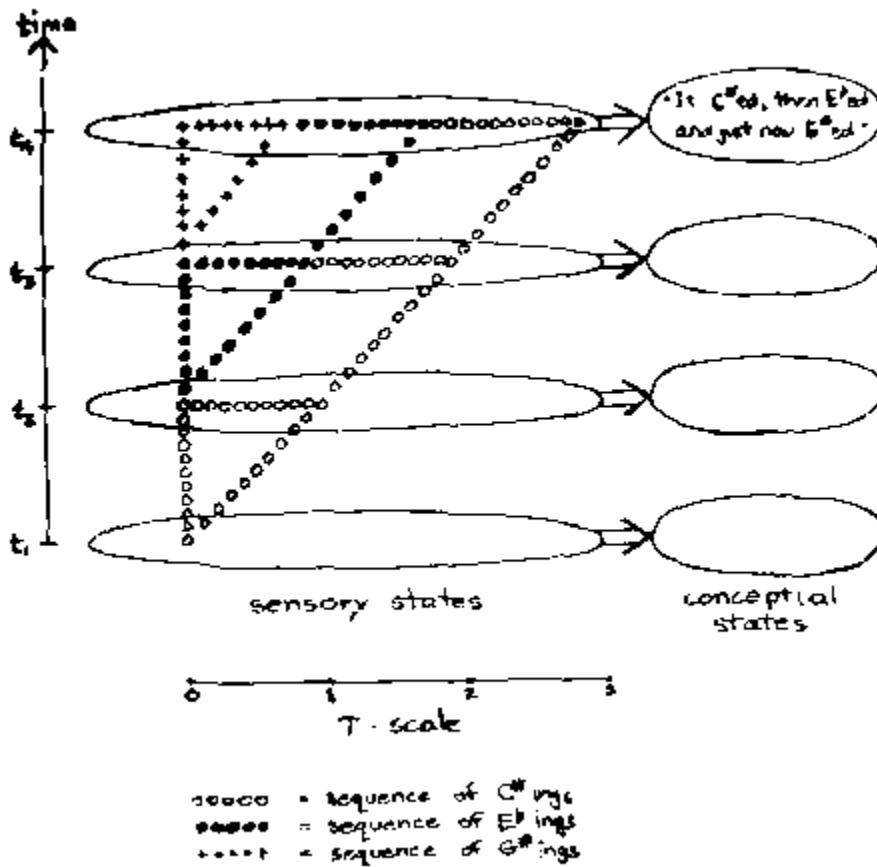
127. What I can do, however, I believe, is to throw some light on the temptation to think of processes as items that in a basic sense have duration -- i.e., that continue to exist for stretches of time, as contrasted with continuously coming to be and ceasing to be in the desiderated sense.

128. This involves an account of the phenomenon of the specious present.<sup>18</sup> This account shares features with many other accounts and, in particular, with that offered by C. D. Broad in his reply to his critics.<sup>19</sup> My account was developed independently of the latter, though not, of course of his classic formulation in the *Examination of McTaggart's Philosophy*.

129. The crucial difference between Broad's two accounts is that in the second he abandons the paradoxical view that processes come into existence, so to speak, at the growing end of the future, and then continue to exist from then on, so that the past steadily acquires a greater duration.

130. The gist of the account is represented by the diagram at the end of this chapter. [Inserted at this point. A.C.]

# THE SPECIOUS PRESENT



131. In this diagram the large circles (viewed in a perspective) represent instantaneous states of a person *qua* having sensory states. The vertical dimension represents time. The horizontal dimension represents a unique mode of ordering -- the t-dimension -- of the (temporally) simultaneous constituents of a sensory state ( $s_i$ ) of the subject.

132. At  $t_1$  a C<sup>#</sup>ing begins at the zero point in the t-dimension and continues at the zero point until  $t_2$ , when it is replaced by an E<sup>b</sup>ing going on to  $t_3$  also at the zero point on the t scale, and is then followed by a G<sup>#</sup>ing which ends at  $t_4$ .

133. In addition to continuing through the period  $t_1t_2$  at the t zero point, the C<sup>#</sup>ing is continued in another manner. Metaphorically it moves to the right in the t-dimension. Thus the  $t_1, t_0$  stage of C<sup>#</sup>ing belongs to a sequence of  $t_i, t_0$  stages ( $t_1 < t_i < t_2$ ) and to a sequence of  $t_i, t_j$  stages ( $t_1 < t_i < t_0 < t_j < t_1$ ).

134. Indeed, the sequence of  $t_i, t_j$  C<sup>#</sup>ings which is the t continuation of the C<sup>#</sup>ing at  $t_1, t_0$ , persists *after*  $t_2$ , when the sequence of C<sup>#</sup>ings at  $t_0$  comes to an end and is replaced by a sequence of E<sup>b</sup> ings at  $t_0$  .

135. For our purposes it is sufficient that the sequence of C<sup>#</sup>ings in the t-dimension, initiated by the C<sup>#</sup>ing at  $t_1, t_0$  persists until  $t_4$ , at which time there is a C<sup>#</sup>ing a  $t^4, t_3$ . This is represented by the small circle at the right of stage S<sub>4</sub>.

136. The same is true, *mutatis mutandis*, of each moment of C<sup>#</sup>ing at  $t_0$  between  $t_1$  and  $t_2$ . It is the initial stage of a sequence of C<sup>#</sup>ing stages which moves to the right in the t-dimension. Thus the C<sup>#</sup>ing at  $t_{1,2}, t_0$  continues to the right in the t dimension. At  $t_2$  it has reached  $t_{0,8}$

137. Parallel considerations apply to the E<sup>b</sup>ing from  $t_2$  to  $t_3$  and the G<sup>#</sup> ing from  $t_3$  to  $t_4$ .

138. Thus at  $t_4$  the subject's sensory state contains a continuous array in the t-dimension of C<sup>#</sup>ings, E<sup>b</sup>ings and G<sup>#</sup>ings. They are temporally simultaneous, but form a *sequence* in the t-dimension.

139. So much for the ontology of the situation. Let us now look at it from the standpoint of cognitive psychology.

140. The C<sup>#</sup>ings, whose career in the t-dimension we have been exploring, are *nonconceptual* states of the subject. Merely as existing they provide the subject with no awareness of a C<sup>#</sup>ing as a C<sup>#</sup>ing, let alone as having temporal features. As previously pointed out, a sensing which is a C<sup>#</sup>ing may be called an "awareness" or a "state of consciousness," but then the latter terms are not being used in a cognitive or epistemic sense.

141. Let us now introduce *conceptual* acts. Without going into the details of a theory of intentionality, let us simply assume that awarenesses as are functional states which are analogous to spontaneous linguistic episodes (thinkings-out-loud) and which, in accordance with their functional roles, are serving as *responses* to the items of which they are the awarenesses. In a perceptual context, such an awareness might be represented by

Lo, the red and rectangular facing side of a brick!

142. In the present context, we shall suppose the subject to have the relevant ur-concepts pertaining to the temporal; while, before, after, then, etc.

143. The crucial idea of this theory of the specious present is that at  $t_4$  the subject responds to the t-array of C<sup>#</sup>ings, E<sup>b</sup>ings and G<sup>#</sup>ings, by a conceptual act which is a token of the Mentalese expression (for which I use dot quotes);

·It C<sup>#</sup>ed a while, then E<sup>b</sup>ed, and just now G<sup>#</sup>ed·

144. In other words, although the t array as a sensory state is *temporally simultaneous*, it is *responded* to by the conceptual representation of a *temporal* sequence.

145. Just as (or so I have argued) in visual perception we mistake our sensory states for features of physical objects (including our body) i.e., we conceptually respond to them, for example, with

·This cube of pink ice over there facing me edgewise·

so we conceptually respond to what is *in point of fact* a simultaneous array of sensory states in the t-dimension with

·(Over there in the corner) it C<sup>#</sup>ed, then E<sup>b</sup>ed and just now G<sup>#</sup>ed·

146. Instead of the t-dimension, Broad offers us degrees of 'presentedness'. Others, e.g., C. J. Ducasse, speak of degrees of liveness. These attempts all make the mistake of supposing that the ordering must be one which involves an introspectible (sensory or quasi-sensory) feature. It must, indeed, be a feature of the sensory state that can be *responded* to. But it needn't be a *sensory* feature.

147. And, indeed, the concept of the t-dimension is a highly theoretical functional concept (like that of the manifold of sense, itself) and, with respect to how, specifically, t functioning is embodied in the mind, is a promissory note which will ultimately have to be cashed out in neuro-physiological terms.

## NOTES FOR LECTURE II

1. Conditional properties can, of course, be occurrent properties in the sense that things may come to have them, as when a piece of iron becomes magnetized. Thus the character of being occurrent does not pick out the properties these philosophers have in mind. In between pure occurrent properties and what might be called pure conditional properties is the category of what Ryle has called "mongrel properties." i.e., "mixtures" of occurrent and conditional properties -- which he illustrates by *migrating*.

2. The most perspicuous account of the analysis is to be found in "Abstract Entities," *The Review of Metaphysics*, 16 (1963) [reprinted in *Philosophical Perspectives* (Springfield, IL: Charles Thomas, 1968; also Reseda, CA: Ridgeview

Publishing Co., 1976)]. A systematic elaboration and defense of the analysis is to be found in *Naturalism and Ontology* (Reseda, CA: Ridgeview Publishing Co., 1980).

3. For an account of these quoting devices which takes into account the distinction between quoting as forming mere designations of sign designs and quoting as forming descriptions of sign designs qua having specific semantical roles, see "Meaning as Functional Classification" in *Synthese*, 27 (1974); also chap. 4 of *Naturalism and Ontology*, cited in n2, above.

4. In "Time and the World Order" in *Minnesota Studies in the Philosophy of Science*, vol. 3, Herbert Feigl, Michael Scriven and Grover Maxwell, eds. (Minneapolis: Univ. of Minnesota Press, 1962); and, more recently, in "Metaphysics and the Concept of a Person," in *The Logical Way of Doing Things*, Karel Lambert, ed. (New Haven, CT: Yale Univ. Press, 1969) [reprinted as chap. 11 in *Essays in Philosophy and its History* (Dordrecht-Holland: D. Reidel, 1974).

5. "Time and the World Order," cited in n4, above. The reference is to p. 552.

6. Of course, attempts have been made to construe sentences as singular terms, and for certain purposes no great damage is done. But murder will out, and though I shall not argue the point here, when all things are considered, the attempt breaks down. For relevant reflections on predications and singular terms, see *Naturalism and Ontology*, cited in n2, above, chap. 3.

7. For an account of discourse about events which developed out of these considerations, see Jack Norman, *Events* (Ph.D. dissertation, Univ. of Pittsburgh, 1974, available on microfilm).

8. To strip down the exposition to the essentials, I have so far left out of account such modifiers as 'in London', 'in 1979', etc. I will touch on 'in London' in a later section. I have already commented (paragraph 22, above) on the uniqueness expressed by 'the'.

9. C. D. Broad, *Examination of McTaggart's Philosophy*, vol I (Cambridge: Cambridge University Press, 1933). The reference is to pp. 141-66.

10. *Ibid.*, pp. 159ff.

11. After all we can countenance white snow in the extra-conceptual order, without countenancing (the state of affairs) that snow is white.

12. I say "at first sight," because, when the larger story is in, expanses of color in the environment turn out to be miscategorized states of perceivers. This, however, is part of the burden of the third and concluding lecture.

13. Should we not write 'everything' -- which, of course, is not the same as 'every thing'. For a discussion of this point see *Naturalism and Ontology*, cited in n2, above, chap. 1.

14. One can also ask "Is time in the world?" I shall not attempt a full answer to this question on the present occasion. Readers who are interested will find an earlier accounting in "Time and the World Order" referred to in paragraph 27, above. For present purposes they can construe time as the continuum of real numbers *qua* correlated with overlapping processes by virtue of metrical procedures. Our present problem concerns the ontology of this "overlapping."

15. Of course, we can now catch up time itself into the whirl of process. But, after all, is not time as a *moving* image of eternity? And, to pick up the theme of the previous note, the assignment of numbers to process is itself process.

16. It is, of course, a philosophical neutral fact that C#ings have a finite duration. It might, indeed, have been a law of nature that all C#ings last only one minute.

17. I have not called attention to the fact that no more than in the context of changing things are these expressions relation words. One who reflects on Whitehead's "method of extensive abstraction" should take this into account.

18. I originally developed the fundamental principles of this account in Appendix A to *Science and Metaphysics: Variations on Kantian Themes* (London: Routledge and Kegan Paul, 1967).

19. *The Philosophy of C. D. Broad*, Paul A. Schilpp, ed. (Evanston, IL: Library of Living Philosophers, now published by Open Court Publishing Co., La Salle, IL).



### III. IS CONSCIOUSNESS PHYSICAL?

1. It is an interesting fact that much of the literature on the so called mind-body problem concerns the relation between sensations -- and, in particular, the sensation of pain -- and bodily states as in principle describable by the natural science.
2. In these lectures, as elsewhere, I have been stressing the radical difference between *sensory* states and *conceptual* states, between, say, a state of sensing a-cube-of-pinkly and a state of thinking about something, e.g., the Straits of Bosphorus. If we think of the mind-body problem as that of how to fit conceptual acts and bodily states into one coherent picture, then we should also be prepared to entertain a sensorium body problem.
3. Certainly, to take care of the one is not, *ipso facto*, to take care of the other. And the troubling fact is that, as noted above, much of what purports to be discussion of the mind-body problem has actually been about the sensorium body problem.
4. Now it is exactly the sensorium-body problem which I propose to discuss on the present occasion. Consciousness is a many-splendored thing, but as used in the title it refers to sensory consciousness, the sort of consciousness we have simply by virtue of feeling a pain or sensing a cube-of-pinkly.
5. The point of the 'as such' is to alert the reader that an attempt will be made to implement the familiar, if controversial, distinction between sensory states -- in Kantian terms, the 'manifold of sense' -- and the states of awareness *as*<sup>1</sup> which are so intimately connected with the former in perceptual consciousness.
6. Awareness *as* is a special case of conceptual consciousness. I have had something to say about it in the first lecture. An adequate account would require a full scale treatment of the categories of intentionality, and hence would far exceed the available space. I have, however, explored the topic at depth on other occasions<sup>2</sup> and shall feel particularly free to draw upon the fruits of that analysis, since it preserves familiar features of the classical theory of conceptual acts -- even though, in the process, *some* new wine is poured into venerable bottles.
7. I certainly do not wish to suggest that full justice can be done to the sensorium-body problem in an hour. But the main moves in the historical dialectic are sufficiently familiar that brief allusions will prepare the reader for an attempt to carry the argument one step further, by putting to use the ontological framework sketched in the preceding lecture.

8. I have been writing as though we could take for granted that persons have such sensory states as, shall I say, sensing bluely, and that there is general agreement as to what such states might be.
9. On the other hand, I have been emphasizing that if there are such sensory states, the idea of such a state is not to be confused with that of an awareness of sensing bluely *as* a sensing bluely.
10. If there are states of sensing bluely, they obviously do not present themselves *as such* -- otherwise the very existence of a controversy about their existence would be inexplicable.
11. If we are any, we aware of states of sensing bluely, we are, at best, aware of them as *blue items* -- *cases* of blue -- and not as states of ourselves. And the awareness of a sensing as a case of blue is, we have argues (following Moore)<sup>3</sup> logically distinct from the sensing itself.
12. But I am getting ahead of my story. To see why this is so, we must take another look at the earlier stages of the dialectic. Let us begin, once again, with the manifest image and examine the status in that image of the qualities of sense.
13. Consider my well-worn example of a manifest object -- a pink ice cube. It presents itself to us as a cubical volume of pink. Indeed, as we saw in the first lecture,<sup>4</sup> it presents its very pinkness to the standard perceiver in standard conditions. This pinkness does not *consist in* a power to bring about experiences of pink. Rather we think of the ice cube as having this power because it is pink in the occurrent or non-dispositional sense.
14. To pick up a point I was making a moment ago, the volume of pink of which we are aware does not present itself to us as a sensory state of ourselves -- even though, at the end of a long (and familiar) story, that is what it turns out to be.
15. Rather, it presents itself to us *as* -- we are aware of it *as* -- over *there*, in physical space, cheek by jowl with other objects, including our bodies, which present their own expanses and volumes of color.
16. Now we are all aware that according to the scientific image of the world, the pink ice cube consists of molecules of H<sub>2</sub>O, along with some molecules of dye-stuff. When philosophers have attempted to combine this fact with the above account of the ice cube as experienced, it has proved only too easy for them to become trapped in a complex pattern of puzzles which, to make a long story short, can be regimented along the following lines.

17. Consider the following four propositions, any three of which are inconsistent with the fourth:

1. A piece of ice can be pink in the occurrent sense.
2. A piece of ice is identical with a whole consisting of molecules.
3. Molecules of H<sub>2</sub>O -- or any other substance -- are not colored in the occurrent sense.
4. A whole cannot be colored in the occurrent sense unless its ultimate parts are.

18. When one attempts to respond directly to this inconsistent foursome, one is confronted by four alternatives.

- I. Accept 1, 2 and 3; reject 4
- II. Accept 1, 2 and 4; reject 3
- III. Accept 1, 3 and 4; reject 2
- IV. Accept 2, 3 and 4; reject 1.

I shall refer to I as the emergentist alternative; II as the camel-swallowing alternative; III as the instrumentalist alternative; IV as the Cartesian alternative.

19. Of these alternatives, I propose to reject III, instrumentalism, out of hand. In other words I shall assume, without argument<sup>2</sup> that scientific realism is true.

20. I shall also leave out of account the second alternative, which I referred to as swallowing the camel. I shall take it to be a conceptual truth about molecules that they do not have color in the occurrent sense of the term.

21. This leaves us with alternatives I and IV. But before considering the Cartesian alternative, let us take a closer look at I. It represents an attempt to combine by a head on collision, as it were, the core features of the two images.

22. This position, Reconciliationist Scientific Realism, we might call it, seems to leave us with two alternatives with respect to the occurrent pinkness of the cube:

A: The occurrent pinkness of cube O is a reducible attribute of O in the sense that O's being pink consists in the fact that its parts severally have certain attributes and stand in certain relations. Schematically,

$$\text{Pink (O)} = S_{f_i} \cdot S_{R_j} (x_i, x_j)$$

where O is the conjunctive individual  $x_1 + x_2 + x_3 \dots + x_n$  and 'f<sub>i</sub>' and 'R<sub>j</sub>' represent appropriate predicates which they satisfy. [Compare

Checkerboard (O) = S(x is a square · x is f<sub>i</sub>) · SR<sub>j</sub> (x<sub>i</sub>, x<sub>j</sub>)

where 'f<sub>i</sub>' represents each of any pair of contrasting color predicates and where 'SR<sub>j</sub> (x<sub>i</sub>, x<sub>j</sub>)' tells us that the components are suitably arranged.]

B: The occurrent blankness of O is a wholistic or nonreducible attribute of O. This attribute, however, would presumably be correlated with a reducible attribute of O, e.g., one which consists in its parts exemplifying certain electromagnetic properties and relations.

23. The reducible correlate of occurrent pinkness in alternative B might be represented by the predicate 'pink<sub>R</sub>' as contrasted with 'pink' simpliciter.

24. According to alternative A, occurrent pinkness is *itself* a reducible attribute. According to alternative B it is correlated in a lawlike way with a reducible attribute. The law would have the form

(x) Pink x = Pink<sub>R</sub> x

25. Both of these alternatives are puzzling. Indeed, A is on the face of it absurd, unless we tacitly admit colors, in the occurrent sense, as values for 'f<sub>i</sub>', i.e., unless we grant that the parts of O which we are considering -- molecules -- have color in the occurrent sense. How, we would surely expostulate, can an object's having occurrent pinkness consist in facts about its parts, none of which facts involves occurrent color?! On the other hand, if we admit occurrent color into these facts, we contradict what we have taken to be a conceptual truth about molecules.

26. But we seem to be little better off with B. For it involves the concept of 'emergent' properties in one sense of this much abused expression, i.e., properties of wholes which do not consist in properties of and relations between their parts.<sup>6</sup> In other words, it is in direct conflict with those intuitions which underlie the theses of logical atomism.

27. Fortunately, however, there is another way of looking at Reconciliationist Scientific Realism which will get us further into the dialectic, while by-passing issues pertaining to reducibility and logical atomism.

28. Thus notice that the options we have been considering have in common the fact that they are formulated in terms of occurrent pinkness as a possible *attribute* of a system of molecules.

29. The reconciliationist thesis, however, can be given a radically different formulation; one which construes occurrent pinkness, at least in its primary mode of being, not as an *attribute*, but rather as a *stuff* -- as matter in the pre-Socratic, Aristotelian sense.

30. Thus consider the following reconciliationist thesis:

I: There are two objects in the region occupied by the pink ice cube: (a) a cubical volume of pink; (b) a cubical whole consisting of molecules of H<sub>2</sub>O (plus some aniline dye).

31. In this new framework, the previously mentioned law which ostensibly relates occurrent pinkness as an attribute of the ice cube to reducible pinkness as an attribute of the whole of molecules is reinterpreted as a law correlating the being occupied of a region of space by a pink<sub>R</sub> whole of molecules with its also being occupied by a volume of manifest pink.

32. Notice that according to this picture, the volume of pink is not identical with the volume of H<sub>2</sub>O. Rather, there is a *supervenience* of one object, which is *not* a whole of actual parts, namely the volume of pink, on another, the volume of molecules, which *is*.

33. In this framework, occurrent pinkness as an *attribute* of the ice cube is a derivative concept which is to be understood in terms of the ingredience in the ice cube of a *particular* which satisfies the predicate 'is a cubical volume of pink'.<sup>7</sup>

34. Notice, also, that what corresponds in this framework to what we have called the Cartesian alternative (IV) is not, in the first instance, the claim that the ice cube lacks the *attribute* of occurrent pinkness, but rather the claim that there is no volume of pink *over there where the ice cube is*.

35. This should not be construed as the denial that the experience contains anything which can legitimately be called a cubical volume of pink. It manifestly does! It should rather be construed as the idea that we have a natural tendency to take volumes and surfaces of color which are not, in point of fact, constituents of physical objects, to be exactly that. How this is to be understood is a topic for the next stage of the dialectic.

### III

36. When one comes to think, as we eventually must, of sense impressions as theoretical constructs, it is tempting to follow a familiar paradigm and to think of the

theory as introducing a new domain of entities, e.g., sensations of volumes of pink, as microphysics introduces a new domain of entities, e.g., molecules.

37. One would think of the theory as inventing predicates to be satisfied by these postulated entities and formulating principles to describe their behavior, as kinetic theory invents predicates and formulates principles pertaining to molecules.

38. If one follows this paradigm, of course, one will be disposed to acknowledge that these predicates and principles are not invented out of whole cloth. One will stress the role of models and analogies in theoretical concept formation.

39. One would, therefore, be disposed to think of the pinkness of a pink sensation as *analogous* to the pinkness of a manifest pink ice cube, as the elasticity of a molecule is *analogous* to the elasticity of a tennis ball.

40. One would, however, grant that in the last analysis the ascription of attributes and behaviors to sense impressions, like the ascription of attributes and behaviors to molecules, is to be justified solely in terms of the explanatory power of supposing there to be such items.

41. Thus, one who is captured by the paradigm could easily be led to grant that the postulated analogies would be justified only to the extent that they contribute to the explanatory power of the theory, and to allow that *in principle* sense impressions need no more have attributes interestingly analogous to those of manifest objects, than micro-physical particles need have attributes interestingly analogous to those of middle-sized things.

42. Or, to put the same point in a less extreme form -- but one which is directly relevant to the history of the problem -- might not this philosopher be led to admit that certain complex *physicalistic* attributes (roughly, attributes definable in terms of 'primary qualities') might be both interestingly analogous to the perceptible features of manifest objects and, when ascribed to sense impressions, satisfy the requirement of explanatory power? And also led to allow that the demand for a *nonphysicalistic* attribute to play these roles might be just another example of 'pictorial thinking'?

43. The possibility of such a challenge should make it clear that while there is much good sense in the above strategy for dealing with sense impressions, it is not quite on target.

44. And it is not difficult to see what has gone wrong. For the argument of the first lecture<sup>8</sup> should have made it clear that the theory of sense impressions does

not *introduce*, for example, cubical volumes of pink. It reinterprets the *categorical status* of the cubical volumes of pink of which we are perceptually aware. Conceived in the manifest image as, in standard cases, *constituents* of physical objects and in abnormal cases, as somehow 'unreal' or 'illusory', they are *recategorized* as sensory states of the perceiver and assigned various explanatory roles in the theory of perception.

45. To make this point, one refers to them by the use of the *category neutral* (i.e., in scholastic terminology, *transcendental*) expression 'entity'.

46. Obviously there are volumes of pink. No inventory of what there is can meaningfully deny that fact. What is at stake is their status and function in the scheme of things.

47. The pinkness of a pink sensation is 'analogous' to the pinkness of a manifest pink ice cube, not by being a *different quality* which is in some respect analogous to pinkness (as the quality a Martian experiences in certain magnetic fields might be analogous to pink with respect to its place in a quality space), but by being the same 'content' in a different categorical 'form'.<sup>9</sup>

48. The controversy over 'secondary qualities' is most fruitfully viewed as a series of attempts to recategorize the proper sensible features of experience. My aim in this lecture is to put the concepts and distinctions developed in the previous lectures to use in developing a recategorization which resolves some, if not all, of the puzzles which have generated this controversy -- and, incidentally, to solve the sensorium-body problem.

49. But before I can undertake this task, other stages of the dialectic remain to be explored.

#### IV

50. In the Cartesian recategorization, the cube of pink which the perceiver takes to be a feature of his environment is in point of fact a state of himself.

51. The perceiver is caused to sense a cube-of-pinkly in standard conditions by a whole of molecules which is pink<sub>p</sub> and, by virtue of this fact, reflecting electromagnetic radiation of such and such a frequency.<sup>10</sup>

52. In other circumstances the total cause of a cube-of-pinkly sensing may involve an object which is not pink<sub>p</sub>. Indeed it may involve no external object at all, but be an abnormal state of the perceiver's organism.

53. In all these cases the perceiver *takes* the cube-of-pinkly sensing to be a cube of pink, out there in physical space.<sup>11</sup>

54. At this stage the Cartesian is likely to meet with the following objection: 'It is all very well to recategorize the cube of pink of which we are aware as a sensory state of ourselves, in an attempt to explain the relation between normal and abnormal perception. But why take, as you do, the further step of denying that whatever our perceptual state, when there is a pink ice cube in front of us there is a cubical volume of pink where the molecules are?'

55. Notice that this objection does not take the form it would if the Cartesian had introduced sensations of a cube of pink as new entities in the manner explored in the previous section. In that case, it would have read: 'It is all very well to introduce sensations of a cube of pink as additional items which are analogous to cubes of pink. But why, the further step of denying that there are cubes of pink out there where the molecules are?'

56. This objection takes it for granted that cubes of pink are *categorially suited* to be over there in physical space. From this point of view, the objector is asking for a good reason to deny that there are surfaces and volumes of color out there where molecules are -- even though there *might* be.

57. Traditionally the answer to this objection was that an adequate account of how we come to have the sense impressions we do finds no job for surfaces and volumes of color as constituents of physical objects.<sup>12</sup>

58. This reply argues, in effect, that if there were proper sensible features in the physical world they would be causally epiphenomenal. They would play no role in the explanation of the properties of physical objects with respect to each other or with respect to their impact on percipient organisms.

59. Historically, counters to this 'scientistic' reply have taken a metaphysical turn.

60. Thus some have argued that 'primary qualities' are mathematical' or 'structural' and cannot exist apart from 'content'. The only content perceptual experience presents us with is the proper sensibles. Thus there is good philosophical reason for supposing the primary qualities of physical objects to be embodied by proper-sensible content, e.g., color -- even though these proper-sensible features play no role in scientific explanation.

61. To this we can expect the Cartesian to reply that we can perfectly well conceive of content features which are not found in sense experience. The Cartesian, in short,



would attack 'concept empiricism'. I shall not follow this familiar debate on the present occasion.

62. Others (e.g., James Cornman)<sup>13</sup> have argued that the mere fact that common sense believes that physical objects have proper sensible features provides a *prima facie* reason to accept the hypothesis that they do, even though these features play no role in scientific explanation.

63. This move is obviously open to a counter move which offers a better justification of the common sense belief than does the abstract appeal to a principle of charity.

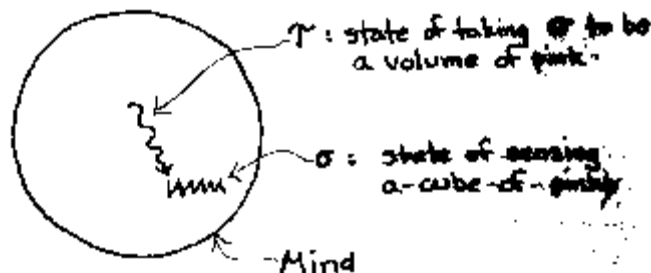
64. But all of these dialectical moves take their point of departure from the *second* form of the objection to the Cartesian denial that the proper sensibles exist in the physical world, that is to say the one which involves a built in categorical contrast between cubes of pink -- of which it makes sense to say that they are located in physical space -- and sensations of a cube of pink -- of which, as states of the perceiver, it does not.

65. Notice, therefore, that if we turn our attention to the first form of the objection, the situation is quite different. This time the objector is suggesting that manifest cubes of pink might exist both as objects in physical space *and* as sensory states of perceivers. To this the Cartesian need only reply that if the cube of pink of which we are perceptually aware is a *state* of ourselves as perceivers, then neither it nor anything resembling it could be an object in physical space.<sup>14</sup>

66. On the Cartesian recategorization, then, the *esse* of cubes of pink is *percipi* or, to use a less ambiguous term, *sentiri*. Of course, as already emphasized, we are not perceptually aware of cubes of pink *as* states of ourselves, though that is in point of fact what they are. We have:

t: state of taking s to be a volume of pink

s: state of sensing a-cube-of-pinkly



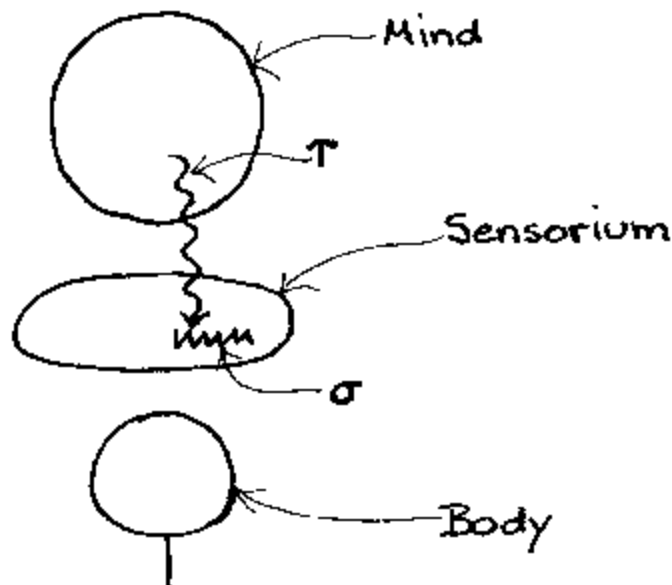
67. Notice, of course, that there has been as yet no occasion to introduce full-fledged Cartesian dualism. Thus the sensing need not be construed as a state of a substance which is really distinct from the body.

68. Nor, to pick up a theme from the opening paragraphs of this essay, need the sensing be construed as a state of a person's *mind*.

69. Thus an Aristotelian who has been following the above dialectic might argue that the ontological subject of a sensing is person. Indeed, he might add that just as a person's mind is a person *qua* having conceptual abilities, so a person's sensorium is a person *qua* having sensory abilities.

70. In this case he would say that sense impressions are states of a person's *sensorium*.

71. We would have



72. But whether or not these reifications are to be taken, with Aristotle, as *facons de parler* or, with Descartes, as ontological truth, is a question which has not yet arisen.

V

73. It does arise, however, when we take into account the fact that the scientific image soon threatens to engulf the person.

74. Continuing, as before, to work within the framework of scientific realism we are now confronted with the idea that persons have actual parts -- micro physical

particles. When we attempt to reconcile this idea with the unity of the person, we find familiar strategies.

75. In the first place there is Substantial Dualism. The mind or, for our purposes, the sensorium is construed as one noncomposite substance which is intimately related to a material substance, the body; and, in particular, to a proper part of the body, the central nervous system (CNS).

76. The state of sensing a-cube-of-pinkly, which, at the previous stage of the dialectic was construed as a state of a *person*, is now construed as a composite state, one element of which is a state of the *sensorium*, the other being a physical<sub>2</sub> state of the CNS.<sup>15</sup> The former is taken to be the final categorial transposition of the original cube of pink.

77. The *person* senses a-cube-of-pinkly by virtue of including as proper parts a sensorium which senses a-cube-of-pinkly and a CNS which is in a *correlated* physical<sub>2</sub> state, which can be represented by the predicate '[senses a-cube-of-pinkly]<sub>p</sub>'

78. Just as in the pre-Cartesian stage of the dialectic pertaining to the pink ice cube we were led to think of such nomologicals

(x) Pink x <--> Pink<sub>p</sub> x

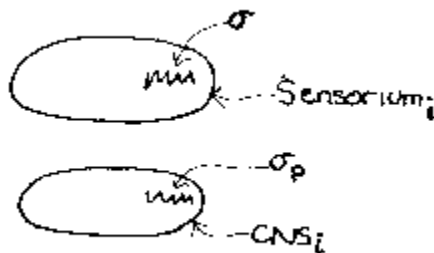
or, in the pink stuff version,

Region R contains a cube of pink <--> R contains a Pink volume of molecules

so we would now think of such nomologicals as

Sensorium is sensing a-cube-of-pinkly <--> CNS<sub>i</sub> is [sensing a cube-of-pinkly]<sub>p</sub>

or, to use a picture,



79. *Prima facie* a second alternative is Reductive Materialism. According to it if a person is a complex system of micro-physical particles, and what really goes on when a person senses a-cube-of-pinkly consists in this system of micro-physical particles being in a complex physical<sub>2</sub> state.

80. *Coming forward at this stage of the dialectic*, however, the position is absurd, as the reader can readily see by reviewing section III. For what we are being offered is no longer a recategorization of the original entity, an unproblematic cube of pink, but a recategorization of a supposedly *postulated* entity, a sense impression of a cube of pink. The mistake involved in Reductive Materialism is pinpointed in paragraphs 40-2 of section III.

81. What is often confused with Reductive Materialism is an *ontological* thesis concerning the status of sensing a-cube-of-pinkly.

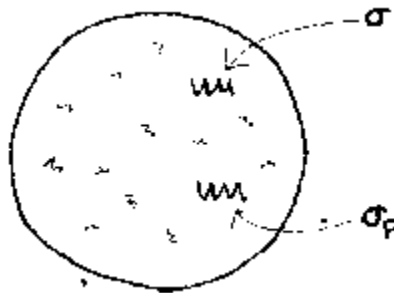
82. This thesis is not, so to speak, that all states of a person -- including sensings -- are complex motions of atoms in the void, but rather the thesis that the only *objects* involved are atoms in the void. Sensing a-cube-of-pinkly is a *state* rather than an *object*.

83. Thus the force of the thesis is to deny that when a person senses a-cube-of-pinkly, there is a cube of pink as an *object*. It is an attack on 'sense data' as phenomenal particulars.

84. When it is made explicit that the sensory *state* is not a reducible or physical<sub>2</sub> state of the system of micro-physical particles, the position turns out to be an old friend: Emergent (or Wholistic) Materialism.

85. According to it, sensing a-cube-of-pinkly is a state, *s*, of the physical system which is correlated with, but not reducible to, a complex physical<sub>2</sub> state, *s<sub>p</sub>*, of the system.

86. Pictorially:



System is in state *s* <--> System is in state *s<sub>p</sub>*

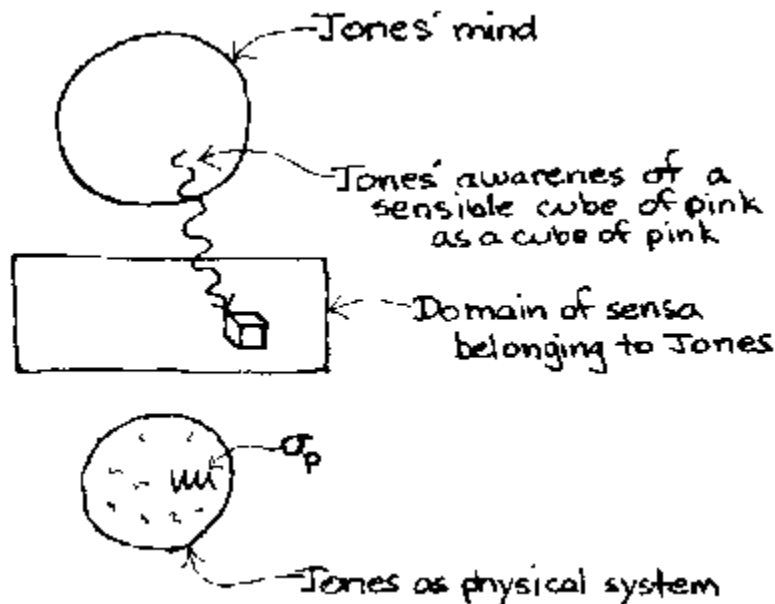
87. Clearly, the difference between this position and the dualistic position presented above is purely ontological. The basic objects of the latter include both micro-physical

particles and sensoria (or, if you prefer, minds). The ontology of Wholistic Materialism includes only micro-physical particles.

88. A third familiar ontological strategy is Epiphenomenalism. Like Substantial Dualism it has two basic categories of objects. This time, however, the nonmaterial objects are not sensoria, but sense-particulars. Or, as they have been called, *sensa*.<sup>16</sup>

89. In a sense, of course, Epiphenomenalism is a form of Dualism; but not of Substantial Dualism, for it does not construe its sensible items as states of a substance -- the sensorium.

90. In our picture, we would have -- and I put in the mental (conceptual) act of awareness *as* to highlight the points made in the above footnote:



Awareness of a sensible cube of pink as a cube of pink.

Jones's mind

Domain of sensa belonging to Jones

Jones as physical system

91. Notice that although I have introduced a mind into the picture, its ontological status is left open. I am not coping in this essay with the *mind*-body problem. As far as anything I have said is concerned, conceptual acts might be complex physical<sub>2</sub> states of a highly organized system of micro-physical particles.

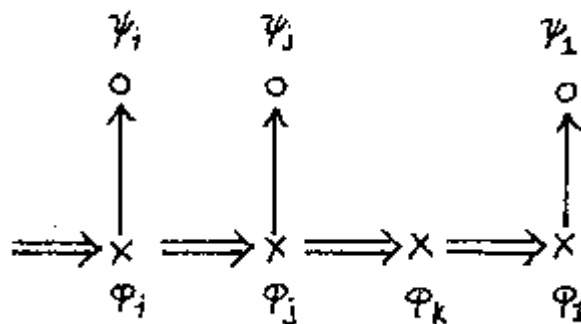
92. In this ontological framework, the successor concept (categorical transposition) of a person sensing a-cube-of-pinkly is that of a composite state of affairs consisting of the body as a complex physical system being in a physical<sub>2</sub> state  $s_p$ , and the existence of a correlated sensible cube of pink.

93. This time the nomologicals ('psycho-physical laws') take the form of correlations between certain states of the physical system, the  $s_p$ s of previous diagrams, on the one hand, and, on the other, the kinds of, and sensible relations between, the *sensa* belonging to the person whose body is the physical system in question.

94. Roughly, the domain of *sensa* belonging to a person consists of the *sensa* 'caused' or 'brought into existence' by these bodily states.

95. The embarrassment experienced by the Epiphenomenalists in speaking, in this connection, of *causality* is notorious. And if we reflect on it, we will gain insight into a theme which, though it stands out most clearly in the case of Epiphenomenalism, is also lurking in classical forms of Substantive Dualism and Wholistic Materialism. This insight will take us to the final stage as far as I shall pursue it here.

96. It is a defining trait of Epiphenomenalism that *sensa* themselves are, so to speak, fifth wheels when it comes to the causality involved in the sequence of physical<sub>2</sub> states of the CNS. We get the familiar picture



where the 'X's represent physical<sub>2</sub> *states* of the CNS and the "s represent the associated patterns of sensible *objects*.

97. The idea is that the occurrence of a f-state is adequately explained by the occurrence of another, preceding f-state, no reference to the associated y-object being necessary. Thus the only nomologicals to which (in principle)<sup>17</sup> appeal need be made are laws formulated in terms of f-states.

98. Of course, in the Humean sense there would be 'causal laws' of the form

$\langle f_i, y_i \text{ at } t \rangle \leftrightarrow \langle f_j, y_j \text{ at } t' \rangle$

so that  $f_i, y_i \text{ at } t$  and, indeed [by virtue of the laws pertaining to the supervenience of f-objects:

$\langle f_i \text{ at } t \rangle \leftrightarrow \langle y_i \text{ at } t' \rangle$

$\langle f_j \text{ at } t \rangle \leftrightarrow \langle y_j \text{ at } t' \rangle]$

$\langle f_i \text{ at } t \rangle$  and  $\langle y_i \text{ at } t \rangle$  would be Humeanly 'necessary and sufficient' for  $\langle f_j, y_j \text{ at } t' \rangle$ ,  $\langle f_j \text{ at } t' \rangle$  and  $\langle y_j \text{ at } t' \rangle$ .<sup>18</sup>

99. But the acknowledgement of these Humean uniformities should not obscure the fact that from the standpoint of *explanation*, the basic role is being played by the f-states. For, (a) the f-state laws are autonomous, i.e., stand on their own feet; (b) the y-object sequences are themselves explained in terms of f-state laws and f-y laws of supervenience.

## VI

100. The idea that sensory items do not play an essential causal role in the behavior of the bodies of sentient beings was not a direct empirical finding by psycho-physicists, but rather a consequence of the dualistic picture of man characteristic of the early modern period.

101. To be sure, this dualism did have an empirical core, but this core was not directly a matter of psycho-physics, but rather an inference from the sufficiency of explanation in terms of mechanistic variables in the case of objects in the inorganic realm.

102. This sufficiency of mechanistic variables, combined with the almost tangible *thingishness* of physical objects and with an impact paradigm of causation made it difficult to conceive of a mode of causation in which the development of a system of material particles might be influenced by nonmaterial items, whether *states* of a 'mind' or Hobbesian *objects* ('appearances'.)

103. This difficulty made it only too tempting to extend the autonomy of mechanical explanation to the bodies of sentient beings. As bodies they are merely extremely complex systems of material particles.

104. That the proper sensibles -- e.g., shades of color -- could function alongside of mechanistic variables in psycho-physical laws in such a way that the mechanical

variables by themselves did not constitute a closed system with respect to necessary and sufficient conditions (as they do for Epiphenomenalism) made no more scientific sense, given the paradigms of the day, than would a Compatibilist attempt to involve the proper sensibles in the laws of motion.

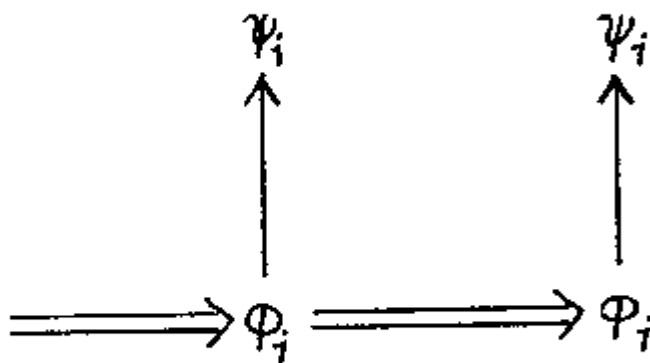
105. Notice that a parallel problem arose in the context of human action. The modern (as opposed to the theological) problem of free will arose in the form: How, given the causal autonomy of the physical, could conscious volitions make a difference? Must they not have physical counterparts, 'material volitions' in Cartesian terminology,<sup>19</sup> to be the necessary and sufficient causal links in the development of purposive behavior.<sup>20</sup> Leibnitz's 'pre-established harmony' is the mirror image of the then current treatment of sensory consciousness.<sup>21</sup>

106. Epiphenomenalism is the tidiest translation into ontological terms of what I have been calling the autonomy of the mechanical. The category of 'epiphenomena' reifies the causal impotence of the proper sensibles as Substantial Dualism and Wholistic Materialism do not.

107. After all, sensoria could intervene in CNS 'machines' by ghostly impact, as minds were conceived to do (by interactionists) by virtue of their desires, emotions and volitions.

108. And proper sensible variables *could* play an essential role in laws pertaining to the material states of the CNS, as many wholistic materialists conceived conscious thoughts to do.<sup>22</sup>

109. But in point of fact, for reasons highlighted in paragraph 105, whichever ontology they espoused, the scientific ideology of the autonomy of the mechanical led them to conceive of the sensory features of consciousness as obeying psycho-physical laws having what might be called the epiphenomenalist form.





110. For the substantial dualist, the 'f's would represent states of the CNS, the 'y's would represent states of the sensorium. For the wholistic materialist, the 'f's would represent physical<sub>2</sub> states of the CNS; the 'y's, proper sensible states (physical, but not physical<sub>2</sub>) of the CNS. The diagram is the same; only the ontology is different.

111. Now in the preceding lecture I sketched an ontology of absolute processes. If we take it seriously, then we no longer are committed to a sharp ontological distinction between objects and object-bound processes on the one hand, and absolute processes on the other.

112. Objects and object-bound processes would, in traditional terminology, be 'logical constructions' out of, i.e., patterns of, absolute processes.

113. Physical<sub>2</sub> objects would be patterns of actual and counter-factual physical<sub>2</sub> absolute processes, i.e., absolute processes which suffice to constitute what goes on in non-living things and in sensate organisms. Let me call the f<sub>2</sub>-ings.

114. What exactly there are in the way of f<sub>2</sub>-ings is a matter of ultimate scientific truth. The only constraint we non-Peirceans can put on them is that they be the sorts of absolute processes which permit the definition of structures which behave in first approximation as do the micro-physical particles of contemporary theory. In a humorous vein we might refer to them as electronings and quarkings.

115. In addition to f<sub>2</sub>-ings, the domain of absolute processes would include s-ings (e.g., C<sup>#</sup>ings, reddings), the transposition of sensa into the framework of absolute process.

116. Philosophers who ponder the sensorium-body problem from the perspective of Scientific Realism, and who resonate to the dialectical structure of the problem as it has been developed up to this ontological turning point, are likely to find that they have been thinking of the CNS as consisting of *objects* (e.g., neurons, consisting of molecules, consisting, say, of quarks, . . . ) and of the relevant physical<sub>2</sub> processes as *object-bound* processes.

117. And that as a result they have been taking a form of ontological epiphenomenalism for granted. In this form the category of 'epiphenomena' would be cashed out as the category of absolute sensory processes, and the traditional dualism of 'epiphenomena' and 'matter in motion' would be viewed, more penetratingly, as a contrast between absolute processes and V-ings of such objects as neurons, molecules, or, say, quarks.

118. They would, accordingly, keep the diagram of paragraph 108, but reinterpret the 'f's as standing for *object-bound* physical<sub>2</sub> processes in the CNS, and the 'y's for determinate kinds of absolute sensory processes.

119. But if they were to accept (programmatically, of course) an ontology of absolute process, they would immediately be freed from this last refuge of metaphysical dualism. If the particles of microphysics are patterns of actual and counterfactual f<sub>2</sub>-ings, then the categorial (indeed, transcendental) dualism which gives aid and comfort to epiphenomenalism simply *vanishes*.

120. And once this picture has gone, they would be in a position to realize that the idea that basic 'psycho-physical' laws have an epiphenomenalist form is a speculative scientific hypotheses which largely rests on metaphysical considerations of the kinds we have been exploring.

121. Psycho-physical theory, to the extent that it is well confirmed, does, indeed, entail that uniformities pertaining to the occurrence of s-ings specify that they occur in the context of f<sub>2</sub>-ings which belong to patterns of absolute processes which constitute specific kinds of neuro-physiologic /laws/.

122. What it does *not* require is that f<sub>2</sub>-ings be nomologically autonomous.

123. Nor does it require that neuro-physiological objects which have f<sub>2</sub>-ings as constituents, have *only* f<sub>2</sub>-ings as constituents. s-ings could in a legitimate sense be constituents of neuro-physiological objects.

124. That is to say, whereas the objects of contemporary neuro-physiological theory are taken to consist of neurons, which consist of molecules, which consist of quarks, . . . -- all physical<sub>2</sub> objects -- an ideal successor theory formulated in terms of absolute processes (both f-ings and s-ings) might so constitute certain of its 'objects' (e.g., neurons in the visual cortex) that they had s-ings as ingredients,<sup>23</sup> differing in this respect from purely physical structures.

125. The way would be open to a bundle theory of persons. A person would be a bundle of absolute processes, both s-ings and f<sub>2</sub>-ings.<sup>24</sup>

126. Notice that (s-ings would be physical, not only in the weak sense of not being mental (i.e., conceptual),<sup>25</sup> for they lack intentionality, but in the richer sense of playing a genuine causal role in the behavior of sentient organisms. They would, as I have used the terms, be physical<sub>1</sub> but not physical<sub>2</sub>. Not being epiphenomenal they would conform to a basic metaphysical intuition to be is to make a difference.<sup>26</sup>

127. Thus the answer to the question which gives this essay its title is affirmative with respect to *sensory* consciousness. As for the further question, Is *conceptual* consciousness physical? a whole new dialectic must be followed. I have developed the main lines of this dialectic on a number of occasions, most extensively in *Science and Metaphysics* and *Naturalism and Ontology*.

## VIII

128. By way of conclusion, it might be useful to point out that this essay, along with the preceding essay, can be construed as a restatement and refinement of the argument of "Philosophy and the Scientific Image of Man."<sup>27</sup> It should throw some light on what I was trying to say in the following, rather cryptic, paragraph from that essay:<sup>28</sup> Is there any alternatives? As long as the ultimate constituents of the scientific image are particles forming ever more complex systems of particles, we are inevitably confronted by the above choice. But the scientific image is not yet complete, we have not yet penetrated all the secrets of nature. And if it should turn out that particles instead of being the primitive entities of the scientific image could be treated as singularities in a space-time continuum which could be conceptually 'cut up' without significant loss -- *in inorganic contexts, at least* -- into interacting particles, then we would not be confronted at the level of neurophysiology with the problem of understanding the relation of *sensory consciousness* (with its ultimate homogeneity) to *systems of particles*. Rather, we would have the alternative of saying that although for many purposes the central nervous system can be construed without loss as a complex system of physical particles, *when it comes to an adequate understanding of the relation of sensory consciousness to neurophysiological process*, we must penetrate to the non-particulate foundation of the particulate image, and recognize that in this non-particulate image the qualities of sense are a dimension of natural process which occurs only in connection with those complex physical processes which, when 'cut up' into particles in terms of those features which are the least common denominators of physical process -- present in inorganic as well as organic processes alike -- become the complex system of particles which, in the current scientific image, *is* the central nervous system.

## NOTES FOR LECTURE III

1. I shall use this phrase to refer to states of being aware of an item *as* being of a certain quality or *as* being related in a certain way to something else.
2. Most recently in *Naturalism and Ontology*, the John Dewey Lectures for 1975 (Reseda, CA, Ridgeview Publishing Co., 1980). See also *Science and*

*Metaphysics* (London: Routledge and Kegan Paul, 1967). For a discussion of awareness *as* which locates it in a broadly behavioristic perspective, see my "Behaviorism, Language and Meaning," in *The Pacific Philosophical Quarterly*, I (1980).

3. See paragraphs 152-56 of Lecture I.

4. Paragraphs 53-76.

5. That is, without argument on the present occasion. I have argued the point on other occasions, most recently in "Is Scientific Realism Tenable?" in the *Proceedings of the Philosophy of Science Association*, vol. 2 (1976). See, also, "Scientific Realism or Irenic Instrumentalism," in *Boston Studies in the Philosophy of Science*, vol. 2, Robert J. Cohen and Marx W. Wartofsky, eds. (New York: Humanities Press, 1965, reprinted in *Philosophical Perspectives*, Springfield, IL, 1967).

6. I am, of course, tacitly excluding certain properties which satisfy this definition, e.g., an object's property of standing in a certain relation to another object which is not a proper part of itself. In traditional terminology, I am limiting my attention to "intrinsic" properties of wholes.

7. A view of this form which rejects scientific realism might identify the pink ice cube with a volume of pink as having the causal properties characteristic of ice, e.g., the property of cooling hot tea. If the manifest coolness of the cube is given equal treatment, one is confronted with the problem of understanding the connection between the cube of coolth and the cube of pink. This problem arises in other forms as the dialectic continues.

8. See, in particular, Section IV.

9. Clearly, to spell out this metaphor would require an adequate theory of the categories and, in particular, of predication and propositional form. For a recent attempt at such a theory, see my *Naturalism and Ontology*, cited in [n2](#), above.

10. That the story of color perception is far more complicated than a simple correlation of perceived quality with the wave length or frequency of the radiation which impinges on the retina, has been made clear by the work of Edwin Land. The refinements which his theory introduces, however, do not affect the main ontological issues with which we are concerned.

11. This does not entail that the perceiver *believes* that there is a cube of pink, out there. The *taking* is a propositional tokening which is essentially a *response*. Whether

or not the perceiver comes to *believe* that there is a cube of pink over there involves thinking in the question-answering sense of this term, as contrasted with thinking-that-p as a conceptual *response* to a *stimulus*.

12. Compare, for example, Aristotelian type theories according to which the standard cause of a sense impression of a cube of pink would involve the transmission of the proper sensible form *pink* as well as the common sensible form cube through a transparent medium, and their reception by the eye.

13. In James Cornman, *Perception, Common Sense and Science* (New Haven: Yale Univ. Press, 1975).

14. The reader should ponder Berkeley's categorial claim that "only an idea can be like an idea." A similar point, less frequently noticed, is made by Descartes. See *Principles of Philosophy*, LXX, *The Philosophical Works of Descartes*, trans. E. S. Haldane and G. T. R. Ross (New York: Dover Press, 1955), vol. 1, p. 249.

15. Roughly, those features of objects are physical<sub>2</sub>, which are, in principle, definable in terms of attributes exemplified in the world before the appearance of sentient organisms, i.e., attributes necessary and sufficient to describe and explain the behavior of 'merely material' things. Physical<sub>1</sub>, features on the other hand, are any which belong in the causal order. I introduced this terminology in discussions of the mind-body problem in the Minnesota Center for Philosophy of Science.

16. The terminology must be watched like a hawk, for many philosophers have used -- and, for that matter, still do use -- the term 'sensum' to stand for an object of an act of sensing, construed as a special kind of awareness *as*. Much of what has been said about acts of sensing is highly problematic. (See my "Sensa or Sensings: Reflections on the Ontology of Perception," in *Essays in Honor of James Cornman*, Keith Lehrer, ed. [Dordrecht, Holland: 1981]). The key point is that sensing, thus construed, is an epistemic rather than, as in our construal, an *ontic* notion. As we have been using the term, to sense a cube of pink is not to be aware of a cube of pink *as* a cube of pink, but is rather the very 'mode of being' of sensed cube of pink. I would have used Ayer's carefully introduced "sense content," were it not for the fact that the act-content terminology is at least as troublesome as that of act and object.

17. It must be remembered that Epiphenomenalism, like Substantial Dualism and Wholistic Materialism, is a philosophical, indeed a metaphysical, gambit -- not a part - - of scientific theory. To the extent that scientists think along these lines, they are taking a philosophical stance. The importance of this point will come out shortly.

18. For simplicity of formulation -- because none of the points I wish to make hinge on it -- I shall assume the absence of "multiple causes."

19. Cf. Descartes' use of the phrase 'material ideas' to refer to the states of the pineal gland which correspond to conscious sensations in the mind.

20. It is worth pondering Spinoza's remark to the effect that "No one hitherto has gained such an accurate knowledge of the bodily mechanism, that he can explain all its functions . . . ." (*Ethics*, Part III, Prop. II [Note]). He is, in effect, arguing that while we are not scientifically able -- at least not yet -- to conceive in specific terms the sort of material state of the body which could be the sufficient cause of purposive behavior, the possibility of there being such a state cannot be ruled out on logical or empirical grounds, while systematic considerations require it.

21. It should be obvious to students of Kant that his solution of the problem of free will is in essence the same as that of Leibnitz and Spinoza, though lacking in theological overtones. For Kant, as for Spinoza, it suffices that it cannot be shown to be impossible that there be, in the required sense, material counterparts of volitions. Of course, Kant is in deeper trouble when the question is posed with respect to rational thinking generally.

22. Of course, tough-minded materialists have conceived of thoughts as identical with material states of the brain, in which case their causality would be a special case of a functional correlation of physical<sub>2</sub> variables. The wholistic materialists referred to in effect are metaphysical cousins of interactionistic dualists. The latter reify the functional correlation of variables of radically different kinds (mental and material) by assigning them as *states* to different *substances* (minds, bodies).

23. Not, of course, in any ordinary sense, parts. See my *Science, Perception and Reality* (London: Routledge and Kegan Paul, 1963), p. 105. Cited hereafter as *SPR*.

24. Reflection should make it clear that the main flaw in Hume's bundle theory is that he includes only sensory items (impressions and ideas), whereas the unity of the self - its imminent causation -- requires the *inclusion* of bodily states: in our terms, f<sub>2</sub>-ings as well as s-ings.

25. After all, 'physical' functions traditionally as a contrastive term.

26. Compare Plato: "We set up as a satisfactory sort of definition the presence of the power to act or be acted upon in even the slightest degree." *Sophist*, 248C; H. N. Fowler trans. (London: Loeb Classical Library -- Heineman, Ltd., 1961).

27. *Frontiers of Science and Philosophy*, Robert Colodny, ed. (Pittsburgh: Univ. of Pittsburgh Press, 1962) [reprinted as chap. I in *SPR*].

28. *SPR*, p. 37.