

Foundations for a Metaphysics of Pure Process:

The Carus Lectures of Wilfrid Sellars

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Lecture 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.
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.
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.
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,

Nero fiddled while Rome burned.

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

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.

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

S1 Vd before S2 Vd S2 Vd before S3 Vd

Therefore, S1 Vd before S3 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

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.

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.**

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[#] tuning fork is a middle C[#] 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[#] sound in the occurrent sense. It is also a C[#] sound in the dispositional sense -- it has the power to bring about experiences of a C[#] sound in standard observers in standard conditions. But, again, the primary sense in which C[#] *occurs* is not that in which experiences of C[#] 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.

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'?**

71. Broad points out 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[#]ing. It gradually became higher in pitch until it was an E^b 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.

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. At this point, **parity suggests that we construe the phrase 'a C[#]ing' as a metalinguistic nominalization of the verb 'to C[#]' as we have construed 'a coronation' as a metalinguistic nominalization of 'to crown or be crowned'.**

76. A strong consideration in favor of making this move is the fact that 'a C[#]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.**

79. If so, 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 . . . *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.**

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 H₂O is not to *analyze* statements about water into statements about H₂O.

94. Nor is it (more than superficially) to establish a correlation between manifest water and its observable properties on the one hand, and H₂O 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 consilience of metaphysical considerations.

99. If, however, we take the, at first sight¹² 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 above,

There is a C[#]ing in the corner.

points to

It C[#]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.**

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.

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[#]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. **But are C[#]ings [BB: as having duration] items 'in the world'? Not if our argument to date is correct.**

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

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'.**

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**.

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.