

DUALISM AND THE ARGUMENT FROM CONTINUITY

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One of the things C. D. Broad argued in: *The Mind and its Place in Nature* (London, 1929, Ch. III) is that certain 'scientific' arguments against Dualist Interaction come back in the end to a metaphysical bias in favor of materialism. Here we pursue this basic strategy against another 'scientific' argument against Dualism itself. We call the argument 'the argument from continuity'. According to this argument the fact that organisms and species develop by insensible gradations renders Dualism implausible.

I

In: *Body and Mind* (Garden City, N. Y., 1970) Keith Campbell presents a version of the argument (pp. 48–49):

Evolutionary theory asserts that complex modern forms, such as man, are the remote descendants of earlier species so much simpler that like the amoeba they show no signs of mental life. If minds are spirits they must have arrived as quite novel objects in the universe, some time between then and now. But when? We see only a smooth development in the fossil record. Any choice of time as the moment at which spirit first emerged seems hopelessly arbitrary.

In the embryonic development of man, the same problem arises. The initial fertilized cell shows no more mentality than an amoeba. By a smooth process of division and specialization the embryo grows into an infant. The infant has a mind, but at what point in its development are we to locate the acquisition of a spirit? As before, any choice is dauntingly arbitrary.

(Campbell uses the term 'mind' in a neutral way. To say that a human being has a mind is to say certain things are true of that person, i.e. that he has sensations, beliefs, etc. Dualism is understood as asserting that the mind is spiritual in nature. We shall adhere to this usage.)

Schematized, Campbell's argument comes to this:

*Premise 1:* There is a smooth process of development from *As* to *Bs*.

*Premise 2:* The *As* do not have *X*.

*Premise 3:* There is no point in the development of the *Bs* from the *As* at which we can say, without being arbitrary, that the *Bs* acquired *X*.

*Conclusion:* The *Bs* do not have *X*.

It is important to get clear about Campbell's use of 'moment' and 'point in its development'. A point in the development of John Smith from the fertilized cell must be a very brief period of time. A split second might qualify; a year certainly would not. The terms 'point' and 'moment' themselves suggest this interpretation. But, more important, the first premise would be pointless if the terms were interpreted otherwise.

Once this clarification is made the argument may be seen to encounter all sorts of objections. One could use the very same argument to prove humans cannot read. For the fertilized cell cannot read. There is no moment in the development of John Smith at which one can say, without being arbitrary, that John Smith was able to read. John Smith may have learned to read at age five, but there is no point in John Smith's development at which he learned to read.

Consider this countermove: Some properties *P* are such that there is no point in time at which an organism can acquire *P*. Having the ability to read is such a property. Moreover it appears that it is only by putting the name of such a property for '*X*' that we get a counterexample to Campbell's argument. Suppose, then, we add this premise to premises 1–3:

*Premise 4:* Having *X* is a property that is acquired in an instant, if at all.

The argument thus revived is not shown to be invalid by the reading example, nor any other example that readily comes to mind. Thus the proper verdict is not that Campbell's argument is invalid but that it has this suppressed premise.

Acquiring a spirit takes place in an instant if at all.

The only attempt to justify Campbell's tacit assumption we are aware of is made by D. M. Armstrong (*A Materialist Theory of the Mind* (London, 1968), pp. 30–31):

But whether we assume that, at a certain point, the body creates the spiritual object or objects, or whether mind and body are simply brought together at this point, there is a further difficulty for the Dualist to surmount. At what point in the development of the organism shall we say that such a momentous event occurs? The difficulty is that there seems to be nothing in the physiological development of the organism to suggest any point of sharp break. Instead we have a gradual growth from complexity to further complexity, and there is no point at which we can say 'There is such a sharp physiologic-

al change here, that this is probably the point at which the body acquires a mind'. Organisms develop by insensible gradation, and so it is natural to say the mind develops in the same way. But because the Dualist sets up so sharp a gap between the material and the mental he must find a definite point when the mental comes into existence.

(Note that Armstrong's use of 'mind' corresponds roughly to Campbell's use of 'spirit'.)

We think this is an important example of the sort of thing Broad has taught us to guard against: the masking of philosophical bias behind empirical claims. For consider what Armstrong is saying. In the first part of the passage he argues in much the same way that Campbell does. In the latter part he responds to the need of justifying Campbell's tacit assumption by saying 'because the Dualist sets up so sharp a gap between the material and the mental, he must find a definite point when the mental comes into existence'.

Schematized, Armstrong's argument comes down to this:

*Premise 1:* There is a sharp qualitative gap between things of type *A* and things of type *B*.

*Premise 2:* Things of type *B* come into existence by insensible gradations.

*Conclusion:* Things of type *A* must come into existence instantaneously.

As it stands this is a blatant non-sequitur. It reminds us of this argument:

*Premise:* There is a sharp gap between things of type *A* and things of type *B*.

*Conclusion:* There can be no causal interactions between things of type *A* and things of type *B*.

To suppose the premise supports the conclusion is just the bias Broad unmasked. Armstrong's argument is no better than this.

## II

Thus far we have argued that the claim that having a spirit is instantly acquired, if acquired at all, is both (1) a necessary premise for the argument from continuity to be valid and (2) a premise for which no good argument exists. Now we consider the possibility that this premise is true, and ask: Is the argument from continuity sound, given this assumption?

Recall Campbell gave two versions of the argument. We first examine the one having to do with growth.

One premise of this argument is that the fertilized cell lacks a spirit. Recall the reason given: "The initial fertilized cell shows no more mentally than an

amoeba". But why should failing to show mentality establish that the fertilized cell lacks a spirit? The spirit might come into existence at the moment of conception (a nonarbitrary choice given that this is the point at which growth begins). The gradual development of mental life might then be due to the gradual maturation of the spirit.

Suppose the fertilized cell does lack an spirit. There exists some other point in the development of John Smith such that it would not be arbitrary to say that point is the time at which John Smith acquired a spirit. For there exist certain mental events which occur instantly, when they occur at all (for example, certain sensations). Consider the first occurrence of such an event in the development of John Smith. If such events are uniquely correlated with physiological events, then there was the first occurrence of such a physiological event in the development of John Smith. The occurrence of such a physiological event would be sudden. There would be nothing arbitrary about the Dualist's choosing this point as the point at which John Smith's spirit came into existence.

Now consider the argument based on evolutionary theory. Here we have the crucial premise that any choice of time in the evolutionary process at which spirit first emerged is arbitrary. The reason given is that we see only smooth development in the fossil record. To this we note, first of all: whether this is so has in fact been debated by various evolutionary theorists. (For the classic discussion of this issue see Charles Darwin: *The Origin of Species* (London, 1902, Chapter X). For a more recent discussion of this issue see Marjorie Grene 'Two evolutionary theories', *British Journal For the Philosophy of Science* 9 (1959), pp. 110–127 and pp. 185–194.) But more important, a point exactly analogous to the second one we made about growth applies here. Consider the first occurrence of an instantaneous mental event in the evolutionary process. If such an occurrence is uniquely correlated with a physiological event, then the latter would be a point which the Dualist could say, without being arbitrary, that spirit came into existence.

Do the facts about evolution and growth that Campbell and Armstrong have in mind bear on the mind-body problem in any way? Well, any view, whether Materialist or Dualist, which is inconsistent with humans gradually developing either mental or physical features is false. But this allows such wide latitude as to be uninteresting.<sup>1</sup>

NOTE

<sup>1</sup> We thank Philip Hugly for helpful discussion.