

BROAD ON THE GROWING BLOCK UNIVERSE

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Intro Metaphysics

1. B theory versus moving spotlight

The B theory Time is analogous to space in many ways. Past, present, and future objects are all (tenselessly) real. No time is objectively present; to say that something is present is just to say that it is simultaneous with one's utterance. (Similarly, to say that something is past or future is to say it is after or before one's utterance.) Change is nothing more than the truth of a pair of statements of this form: "Object x is F at time t_1 " and "Object x is not F at time t_2 ". Many (though not all) B theorists accept temporal parts.

We are naturally tempted to regard the history of the world as existing eternally in a certain order of events. Along this, and in a fixed direction, we imagine the characteristic of presentness as moving, somewhat like the spot of light from a policeman's bull's-eye traversing the fronts of the houses in a street. What is illuminated is the present, what has been illuminated is the past, and what has not yet been illuminated is the future... (Broad, p. 141.)

The moving spotlight view Past, present, and future objects are real, as the B theory says. But a single moment of time is objectively present. But which moment is present is not "frozen"; the objective present moves. In addition to the kind of "change" that the B theory acknowledges, there is also a further sort of—more genuine—change: the change in events from future to present to past.

2. A new kind of change: becoming

Broad thinks that events change their temporal qualities:

...the change that happens to an event when it ceases to be present and becomes past is like the change of Tom Smith when he ceases to be the

youngest son of John Smith; and the continuous retreat of an event into the more and more remote past is like the successive departure of Tom from being the ‘baby’ of the family, as John Smith... produces more and more children. [My present] is just the last thin slice that has joined up to my life-history. When it ceases to be present and becomes past this does not mean that it has changed its relations to anything to which it was related when it was present. It will simply mean that other slices have been tacked on to my life-history, and, with their existence, relations have begun to hold, which could not hold before these slices existed to be terms to these relations. (pp. 142–3)

It will be observed that such a theory as this accepts the reality of the present and the past, but holds that the future is simply nothing at all. Nothing has happened to the present by becoming past except that fresh slices of existence have been added to the total history of the world... (Broad, p. 143)

The growing block theory Past and present objects exist, but there are no (merely) future objects. There is an objective present: the edge of the block universe to which new layers will be added. (Similarly, the objective past is all the times before the objective present.) In addition to the kind of change that the B theory recognizes, there is also a further sort of change, *temporal becoming*: the addition of “new layers of being” to the block universe.

3. Judgments about the future

A puzzle:

If the future, so long as it is future, be literally nothing at all, what are we to say of judgments which profess to be about the future? (Broad, p. 144)

There are two questions here.

1. What are judgments about the future *about*; why aren’t they meaningless?
2. What makes such judgments true or false?

First step: figure out what’s going on when we talk about nonexistent entities:

Many English peasants, in the Middle Ages, must have made the judgments ‘Puck exists’ or ‘Puck has turned the milk.’ ...What fact made their judgments false? The answer is that it is the negative fact that no part of the universe was characterised by the set of characteristics by which they described Puck to themselves... The judgment which is *grammatically* about ‘Puck’ proves to be *logically* about the set of characteristics by which the assertor describes Puck to himself. (Broad, 145–6)

Thus “logically” we’re not really talking about a nonexistent entity; we’re only talking about its characteristics. However, Broad says that statements about the future are even more problematic:

Judgments like ‘Puck exists’ are not only *about* something; they also *refer* to some fact which makes them true or false... If we ask what fact judgments ostensibly about the future refer to, we must answer that there is no such fact... [Such judgments] are therefore at that time neither true nor false. (Broad, p. 146)

Truth or falsity requires reference to a fact, and there is none for statements about the future. The future is *open*.

4. Becoming

But how then do we think of the addition of layers of being to the block universe? Broad’s own view seems to imply that “there will be layers added” is neither true nor false.