

DISCUSSION

THE "TIMELESSNESS" OF TIME¹

There are two different ways in which we ordinarily think and talk about time. On the one hand we think of events in the world's history as being *related*, i.e., as being *earlier than*, *later than*, and *simultaneous with* each other. On the other hand we think of events as being in the *far past*, being in the *near past*, being *present*, being in the *near future*, being in the *far future*, and changing in respect to these *A-determinations*.² To think of events in the second way is to conceive of them as *becoming*. Philosophers have wondered which, if either, of these two ways of conceiving time is more fundamental. In his book, *The Language of Time*,³ Richard Gale attempts to defend McTaggart's positive thesis that there cannot be temporal relations without becoming by analyzing temporal, or *B-relations*, in terms of *A-determinations*. The aim of this paper is to show that Gale's purported reductive analysis of *B-relations* to *A-determinations* fails, because it cannot account for the "timelessness" of time.

The paper will have two sections. In the first section I shall (a) state *some* necessary conditions for an adequate analysis of *B-relations* and (b) explain my meaning(s) of the important terms, "intrinsic direction," "timelessly true," and "timeless." In the second section I shall argue that Gale *does not satisfy* the necessary conditions for an adequate analysis of *B-relations* and therefore does *not* vindicate the intuitions of McTaggart and several *A-Theorists*⁴ that there cannot be temporal relations without becoming.

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² I shall, following Gale's terminology, use "*A-determinations*" to designate the concepts of past, present, future, more past, and more future, and "*B-relations*" to designate the concepts of *earlier (later) than*, and *simultaneous with*.

³ R. Gale, *The Language of Time* (London, 1968), 86-100.

⁴ See, for example, C. D. Broad, *Scientific Thought* (New Jersey, 1959); *An Examination of McTaggart's Philosophy*, Vol. 2, part 2, (Cambridge, 1938); P. T. Geach, "Some Problems About Time," *Proceedings of the British Academy*, 51, (London, 1966); A. N. Prior, *Papers on Time and Tense*, (Oxford, 1968); W. Sellars, "Time and the World Order," in Feigl and Maxwell (eds.) *Minnesota Studies in the Philosophy of Science*, 3 (Minneapolis, 1962).

I

Nearly every major philosopher of time has agreed that time necessarily involves temporal relations. Yet disagreement abounds over their nature. Are they definable and dependent upon becoming, as the A-Theorist maintains, or are they indefinable and independent of becoming, as the B-Theorist⁵ maintains? For the moment we need not decide. What does require immediate attention, however, is the claim that "time necessarily involves temporal relations." Just what does that claim mean?

First and foremost it means that time necessarily has an "intrinsic direction." That is to say, a *temporal* relation, unlike a *spatial* relation, is such that its holding between events does not require the choice of a "point of view." Broad once expressed this difference between space and time by remarking that:

In a linear spatial series there is no asymmetric dyadic relation intrinsic to the series.⁶

But that:

In a temporal series . . . there is a genuine dyadic relation which is intrinsic to the series and involves no reference to any term outside the latter.⁷

Consider, for example, a tomato that changes its color from green to red. To say that time has an "intrinsic direction" means that if the tomato is *first* green and *then* red, then the truth of the claim that the tomato is green *before* it is red "does not depend upon the speaker's position or point of view—or on the point of view of anybody or anything else."⁸ It would appear then, that any adequate analysis of B-relations must be able to account for their having an intrinsic direction.

The intrinsic direction of time implies at least two other features of B-relations that must be accounted for in a successful analysis: Statements about B-relations must be "timelessly true," and truth conditions for statements about B-relations must be "timeless." Fur-

⁵ See, e.g. A. J. Ayer, "Statements About the Past," in *Philosophical Essays*, (New York, 1963); *The Problem of Knowledge*, (Baltimore, 1969); A Grunbaum, "The Status of Temporal Becoming," in *Modern Science and Zeno's Paradoxes*, (Middletown, Connecticut, 1967); D. C. Williams, "*The Myth of Passage*," in R. Gale, *The Philosophy of Time* (London, 1968). Also see Gale's bibliography of A and B-Theorists in *The Philosophy of Time*, *op. cit.*

⁶ C. D. Broad, "Ostensible Temporality," in R. Gale, *The Language of Time*, *op. cit.*, p. 120.

⁷ *Ibid.*, p. 120.

⁸ I am following M. Black's understanding of the "direction" of time in his article, "The 'Direction' of Time." *Analysis*, 19 (1959), pp. 62-63.

thermore, according to Gale, a fourth necessary condition for a successful analysis of B-relations is that the *analysandum* and the *analysans* must be logically equivalent.⁹ Before we can see why Gale's analysis does not satisfy these conditions, we must attend to an ambiguity in the words "timelessly true" and "timeless."

At first glance, to say that a statement is "timelessly true" has a reasonably clear meaning. It means that the sentence used to make it is true whenever it is uttered or written.¹⁰ Trouble arises, however, when we ask: "What are truth conditions of a timelessly true statement?" The natural response is that they are "timeless" states of affairs, and herein lies the ambiguity. For, to say that a state of affairs is "timeless" can mean at least two very different things. A state of affairs can be "timeless" because either (1) it exists *at every time* or *throughout all of history*, or (2) it exists entirely *apart from history* and *independent of time*. To see what is involved in the first alternative, let us suppose, as Augustine did,¹¹ that before God created the heaven and the earth, there was no time. Let us further suppose that the heaven and the earth will exist for all of time. Then, the statement that the heaven and the earth exists is "timelessly true" and its truth condition is a state of affairs or a series of such that together "persist" throughout all of time. The second kind of "timeless" state of affairs is exemplified by the two familiar sentences, "Red is a color" and "Two plus two is four." These statements are also "timelessly true," but their truth conditions are *not* states of affairs that exist at every time, but ones that exist *independent of*, or *apart from time*.

To mark the aforementioned distinctions let us call those statements that are "always" true because their truth conditions are *at every time* "timelessly, true" and those statements that are "always" true because their truth conditions are *apart from time* "timelessly₂ true." Further, let us call the truth conditions of timelessly₁ true

⁹ Cf. Gale, *The Language of Time*, op. cit., p. 94 and p. 96.

¹⁰ I distinguish sentences and statements because there is a difference between describing the use of a sentence on the one hand, and what-is-said or what-is-stated by the utterance of a sentence, on the other hand. I shall not be concerned with the issue of whether or not statements are "abstract" entities that are distinct from and independent of sentences. In this regard, see R. Gale, "Propositions, Judgments, Sentences, and Statements," in P. Edwards, ed., *The Encyclopedia of Philosophy* (New York, 1972), and R. Cartwright, "Propositions," in R. J. Butler, ed., *Analytical Philosophy* (Oxford, 1962). I do believe, however, that if statements or propositions are "abstract" entities, then there cannot be becoming. For arguments, see my paper, "Propositions, Facts, and Becoming," *Philosophical Studies*, 29 (1976), pp. 397-402.

¹¹ Augustine, *Confessions*, bk. 2, chap. 13, (London, 1951).

statements "timeless₁," and the truth conditions of timelessly₂ true statements "timeless₂."

With these distinctions in the foreground we can clarify the second and third conditions of a successful analysis of temporal relations: Any analysis of B-relations must be able to capture the timelessly₂ truth of B-statements and the timelessness₂ of their truth conditions. For, if we suppose that B-statements are timelessly₁ true then there must be *times* at which their truth conditions exist. And, regardless of how we construe "times," if B-statements are true *at every time*, then their truth value depends on a temporal point of view. In that case, however, B-statements are not about relations with an intrinsic direction. To see this assume that (i) Event P occurs at t_1 , (ii) Event Q occurs at t_2 and (iii) B-statements are timelessly₁ true then, either (iv) P is earlier than Q, or (v) Q is earlier than P. That is, given (i)-(iii), then, if t_1 is earlier than t_2 (iv) is true, but if t_2 is earlier than t_1 (v) is true. In other words, if a B-statement is timelessly₁ true, then the state(s) of affairs that makes it true has a direction only by reference to the direction of time(s) at which it occurs. Therefore, the truth condition of a B-statement does not have an *intrinsic* direction. Since the notion of an intrinsic direction is vital to the concept of time, any analysis of B-relations must satisfy the conditions that B-statements are timelessly₂ true and, consequently, that their truth conditions are timelessly₂.

Interestingly, Gale makes certain claims which imply that he too recognizes the timelessness₂ of time. He says that the paradigm tenseless sentences: "Two plus two is four" and "Red is a color" each make "timelessly true statements." These paradigms suggest that he believes that tenseless sentences are used to make timelessly₂ true statements. If this is so then, since Gale asserts that "P is earlier than Q" is tenseless, it follows that he concedes the timelessly₂ truth of B-statements and, consequently, the timelessness₂ of time.

We are ready to turn to Gale's analysis, so let us collect the necessary conditions for an adequate analysis of temporal relations. It must be able to account for (1) B-relations having an intrinsic direction, (2) B-statements being timelessly₂ true, (3) B-statements having timelessly₂ truth conditions, and (4) B-statements being logically equivalent to their *analysans*.

II

Gale maintains that B-relations can be analyzed in terms of A-determinations. This means that the B-relation of *earlier than* cannot obtain between events unless those events have A-determinations. His

reductive analysis of B-relations is defended by demonstrating that any B-statement is logically equivalent to a disjunction of A-statements. His reduction reads as follows:

P is earlier than Q. = .P is past and Q is present or P is past and Q is future or P is present and Q is future or P is more past than Q or Q is more future than p.¹²

Gale underlines the words "or" and "is" to indicate that they are to be construed as *tenseless*.¹³ However, if "tenseless" means "timelessly₂ true," then the *analysans* is not tenseless and he could think that it is only if he confused the two senses of "timelessly true" previously discussed. That is, he must have thought that the *analysans*—a timelessly₁ true statement—is a timelessly₂ true statement. The *analysans* is timelessly₁ true because its truth value depends on the truth value of its components and their truth value depends on time.¹⁴ In other words, each of the disjuncts in the *analysans* is true at different times and false at all other *times*. For example, the first disjunct is true *when* (at the same *time* as) the third disjunct is false, and false at all other times; whereas the third disjunct is true *when* the first disjunct is false, and false at all other *times*.

This conclusion makes it impossible to satisfy any of the four conditions of an adequate analysis of temporal relations. For, if the truth conditions of the *analysans* must change with time, then the *analysans* must be timelessly₁ true. In that case, however conditions (2) and (3) are not satisfied. Furthermore, condition (1) is not satisfied since it implies that conditions (2) and (3) are satisfied. Finally, condition (4) is not satisfied, i.e., the *analysans* and the *analysandum* are not logically equivalent because the *analysans* entails that time does not have an intrinsic direction and the *analysandum* entails that time does have an intrinsic direction.

Perhaps my criticism of Gale's analysis of B-relations in terms of A-determinations can be made clearer by showing that his translation or analysis of the B-statement that P is earlier than Q implicitly implies either that (I) time does not have an intrinsic direction, or (II) the A-series¹⁵ and the B-series involve an infinite regress, or (III)

¹² Gale, *op. cit.*, p. 92.

¹³ For a criticism of the standard ways of distinguishing *tensed* and *tenseless* sentences see, S. E. Braude, "Tensed Sentences and Free Repeatability," *The Philosophical Review*, 83 (1973), 188-214.

¹⁴ Cf. Braude, *op. cit.*, pp. 200-201 and p. 212.

¹⁵ An A-series is a series of events which have some A-determination. Gale says that the generating relation of an A-series is *earlier than*, but if my thesis is correct, then he is not entitled to say that. The B-series is a series of events whose generating relation is *earlier than*.

B-relations can hold between and among terms that *do not have* A-determinations. Reconsider the *analysans*. We know that each disjunct changes its truth value with time and therefore that the *analysans* entails reference to different times. Further, since, according to Gale, “. . . at any two different times there are different A-series . . .”¹⁶ it follows that the *analysans* entails a sequence or series of different A-series. Concerning this sequence of A-series we may ask: “What is its generating relation?” Either the generating relation is *nontemporal* or it is *temporal*. If the sequence of A-series is a *nontemporal* sequence then the truth conditions of all A-statements are timeless. That is, if the relation between the facts that P is present and P is future is *nontemporal*, then events describing A-determinations of events are timelessly₂ true. It follows that time does not have an intrinsic direction.¹⁷ If the sequence or series of A-series is a *temporal* sequence or B-series, then equally intolerable results ensue. For, a B-series is an A-series or it is not. If a B-series is an A-series, then the sequence of A-series is itself an A-series, and since Gale says that, “. . . if there is one A-series there must be a series of A-series”¹⁸ it follows that we get a second sequence of A-series, a second sequence of B-series and so on *ad infinitum*. If a B-series is not an A-series, then *a fortiori* there can be a B-series without becoming, i.e., there can be B-relations between events that do not have A-determinations.

In summary, Gale’s analysis of B-statements in terms of a disjunction of A-statements entails that either (I) time does not have an intrinsic direction, or (II) there are an infinite number of A- and B-series, or (III) there can be temporal relations between events that are not past, present, or future. Since (I) and (II) are absurd, Gale must accept (III) as true. Yet, if (III) is true then his analysis does not prove that there cannot be a B-relation of *earlier than* unless there is becoming; it proves exactly the opposite. In short, Gale’s analysis is unsuccessful because it fails to account for the intrinsic direction and, consequently, the timelessness, of time.

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¹⁶ Gale, *The Language of Time*, *op. cit.*, p. 9.

¹⁷ For a defense of the claim that if A-statements are timelessly₂ true then time does not have an intrinsic direction, see my paper, “Propositions, Facts, and Becoming,” *op. cit.*

¹⁸ Gale, *The Language of Time*, *op. cit.*, p. 190.