THE ETERNAL RECURRENCE

ARTHUR DANTO

The eternal recurrence idea, roughly, is that whatever in fact happens, has happened infinitely many times and will re-happen an infinity of times, exactly in the same way in which it happens now. So, strictly speaking, there is really no “last” man but rather an infinity of last men. And strictly speaking there is no single person Nietzsche, but instead an infinite number of exactly similar Nietzsches, mirroring one another throughout time. And, like the superman, the doctrine of eternal recurrence is taught by Zarathustra:

You would say “Now I die and vanish.” And “Now I am nothing.” Souls are mortal as bodies.
But the knot of causes, in which I am tangled, returns again—and creates me again. I belong myself to the causes of eternal recurrence.
I come again, with this sun, this earth, this eagle, this snake—not to a new life or a better life or a similar life:
I come eternally again to this same life, in what is greatest and what is smallest, and teach again the eternal recurrence of all things (ZIII “Der Genesende”).

It is hard to know what to make of this notion, not merely with regard to any intrinsic difficulties in it—and there are many—but with respect to the radical sort of conventionalism Nietzsche appeared to espouse and continued to espouse after the publication of Also Sprach Zarathustra. Things are allegedly fictions, solidities arbitrarily projected onto a markless flux; in nature, even assuming there are things, no two of them are alike; laws are simply conventions, of sheery human contrivance; there are in the world no causes and no effects—these are propositions which Nietzsche seems over and over again, with minor variations, to have insisted upon.
He regarded the doctrine as the most scientific of hypotheses and, indeed, sought in science for confirmation of it. But then, consonant with his views on science, this “law,” as part of science, would be a conventionalist fiction. Yet the idea cited him deeply, and I try to determine what reasons he felt he had in support of the doctrine, and then what was his attitude toward it, assuming his reasons were sound. That is, to put the matter pragmatically, we must see what difference its being true or false would make to him—although he seldom discussed the possibility of its being false. One of the first occasions on which he mentions it conveys pretty well how he felt:

What if a demon were to creep after you one day or night, in your loneliness, and say: “This life which you live and have lived, must be lived by you once again and innumerable times more; and there will be nothing new in it, but every pain and every joy and every thought and every sigh, and everything unspeakably small and great in your life, must come again to you, and all in the same series and sequence . . . the eternal hourglass will again and again be turned—and you with it, dust of the dust!”—Would you not throw yourself down and gnash your teeth and curse the demon who spoke to you thus? Or have you once experienced a tremendous moment, in which you would answer him: “Thou art a god and never have I heard anything more divine!” (GS 341).

The doctrine is by and large presented in just such fanciful terms in Nietzsche's published writings, or hinted at, or stated obliquely with no particular effort at argument or proof. And perhaps Nietzsche came in time to believe he had proved it: it often happens that a certain theory is presented by a philosopher in a programmatic manner, and afterward is simply presupposed in his writings without his ever having worked it out in detail. But Nietzsche did leave behind some purported arguments, presumably elaborated around 1881, the time at which he was composing Die Fröhliche Wissenschaft. The following extract is perhaps the most detailed statement of it in his Nachgelassene Werke:

The total amount of energy (All-kraft) is limited, not “infinite”; let us beware of such excesses in concepts! Consequently, the number of states (Lagen), combinations, changes, and transformations (Entwicklungen) of this energy is tremendously great and practically immeasurable, but in any case finite and not infinite. But the time through which this total energy works is infinite. That means the energy is forever the same and forever active. An infinity has already passed away before this present moment. That means that all possible transformations must already have taken place. Consequently, the present transformation is a repetition, and thus also that which gave rise to it, and that which arises from it, and so backward and forward again Insofar as the totality of states

of energy (die Gesammtlage aller Kräfte) always recurs, everything has happened innumerable times... (Werke: Leipzig, 1901, XII, 51).

This is an exceedingly opaque piece of writing, and one is rather put off by the two occurrences of "consequently" (Folglicht) which appear in it: are they to be taken as literary or logical? I assume the latter, since this passage is offered as an argument. But then it turns out to be rather a poor argument. Let us try to reconstruct it. To begin with, we list three propositions which Nietzsche felt to be true and interconnected:

1. The sum-total of energy in the universe is finite.
2. The number of states (Lagen) of energy is finite.
3. Energy is conserved.

These propositions are clearly independent. The truth of (3) is compatible with the truth and falsity of (1), and conversely. And (2) might be false even if both (1) and (3) were true. Nietzsche seems to regard (2) as entailed by (1), but it is not. To be sure, he has not specified how the term "state" is to be used, and pending such restrictions it is very difficult indeed to know whether (2) is true or false. But one could give a wholly natural interpretation of Lagen in which (1) and (3) are true and (2) would be false. Imagine some conservative energy system the total energy of which has some finite number, say 6, where some of the energy is kinetic. Suppose again that the kinetic energy increases, so the potential energy decreases, but at a rate such that the first approaches 6 while the latter approaches 0. These limits could be approached indefinitely without being reached, and there could in principle be an infinite number of "states" of kinetic energy, having a different magnitude at every instant, without the recurrence of any single magnitude. On such a model, (1) and (3) would be true and (2) false. So we must regard (2) as independent of (1) and (3).\footnote{The ancient theory of cosmic return sometimes maintained that there were a finite number of atoms, hence a finite number of combinations of atoms. This would surely be unexceptionable, but Nietzsche has rejected atomism as a fiction. He uses instead All-kraft and Lage, it clearly doesn't follow from the fact that the sum is finite that there is a finite number of parts. The sum of the series \(1 + \frac{1}{2} + \frac{1}{4} + \frac{1}{8} + \ldots\) is a finite number, 2. But it hardly follows that there is a finite number of members in the series.}

But how do (1) through (3) entail that any single Lage occurs an infinite number of times? The answer is that they do not. We need also

4. Time is infinite.
5. Energy has infinite duration.

Now, suppose there were exactly three energy-lagen, A, B, C. And suppose that each of these occurred for a first time a finite time ago, say at \(t-3\), \(t-2\), and \(t-1\). Say that \(A\) had the earliest first occurrence of the three, at \(t-3\). Then, before \(t-3\), no lage of the three possible lagen our model supposes could have existed. But from (4) it follows that there must have been time before \(t-3\). And from (5) it follows that there must have been energy before \(t-3\). But from (3) it follows that the amount of energy before and after \(t-3\) is the same. But on our hypothesis, at least one of the three possible lagen must exist if energy exists, these being the only energy lagen. Hence at least one of these lagen must have existed before \(t-3\), or, what comes to the same thing, there can be no first occurrence for each of the lagen. Hence at least one of them must have occurred an infinite number of times. But quite apart from the fact that we do not know which of the three it is, it is nonetheless the case that so far we have not been able to prove that one of them occurred an infinite number of times, and this is compatible with the possibility that two of them happened a finite number of times.

Suppose \(A\) has occurred an infinity of times before \(B\) occurs. \(B\) would mark a cut-off point temporally behind which stretches an infinitude of occurrences of \(A\). But what sense would it make to say that \(A\) occurs an infinite number of times though nothing else happens? Would it not be more appropriate to speak of one event of infinite duration? Nietzsche would rule this out as constituting an equilibrium, and his point is that if an equilibrium is ever reached, it would persist eternally. If there were only \(A\) through an infinity, nothing could bring about a change, for there is nothing but \(A\), and to bring in something from outside would violate (3). So let us add

6. Change is eternal.

But the simplest sort of change would be an alternation of a pair of events, \(A\) and \(B\). With our model and (1) through (6) we can prove that at least two lagen have occurred an infinite number of times. And this is still compatible with the possibility that one of the three possible lagen occurs a finite number of times. But now imagine we have an infinity of alternations... \(A-B-A-B-A-B-B\ldots\), and at a new cut-off point \(C\) occurs, so that \(C\) had a first occurrence a finite
time ago. Nothing is so far incompatible with this possibility. But if we add something like

7. Principle of sufficient reason,
we can perhaps rule out a first occurrence for C. That is, there must now be a sufficient condition for C. But then it must be either A or B, these being all our model allows. Then since each of these things has happened an infinity of times, if either of them is a sufficient condition for C, C must have occurred an infinite number of times.

By repeated applications, we can increase our model by any finite number and prove that nothing can have occurred for a first time. But then nothing can in the future occur for a first time either. Of course we can hardly regard this as a proof of the impossibility of creation ex nihilo since we have pretty much had to assume this with (3), (4), and (5).

We can, then, reconstruct Nietzsche's argument with a melange of a priori and empirical propositions, each independent of the others and each of which could be separately denied. But further discussion is out of place here and we turn to the question of why Nietzsche thought the doctrine so important.

To begin with, it would be incompatible with the idea that the entire course of history approaches some goal, has some "meaning." For let G be such a goal. Then either G cannot ever occur, or G has occurred an infinity of times. Hence to accept the doctrine entails a rejection of certain religious interpretations of history. On the other hand, it is not the sole alternative to these, and the doctrine is compatible with the possibility that each iterated transformation (Entwicklung) has a goal.

Secondly, the doctrine can support a certain kind of optimism. For there can be no permanent stage, no infinitude characterized by A-A-A-A... Hence, the "last man" doesn't really constitute a danger of the sort envisaged by Zarathustra. But then, by the same criterion, the doctrine can support a certain kind of pessimism. The detested institutions will appear again and again. Yet, as in certain forms of Mahayana Buddhism, a Buddha appears at a critical moment in each cosmic cycle, so a Nietzsche must appear, again and again, when humankind is at its lowest point, enjoining upon his fellows a fresh effort. Does it matter that we shall all pass away, return again, pass away again. The answer is it does not. What counts is the effort, the will-to-power, the joy in overcoming, not for what it leads to, but in itself. And man should "accordingly" cherish this for its own sake, the importance of all goals being radically diminished when, like Sisyphus, we see we must do the same things over and over again: "My formula for greatness in men is Amor Fati: that one should not wish things to be otherwise, not before and not after, in the whole of eternity" (EH "Why I Am So Clever" 10).

"My doctrine states," he writes in the Fröhliche Wissenschaft period, "So live that you must desire to live again. This is your duty. At any rate you will live again. He for whom striving gives the greatest feeling, let him strive. He for whom rest gives the greatest feeling, let him rest. He to whom order, following, obeying gives the greatest feeling, let him obey. He must only be clear as to what gives him the highest feeling, and be shy of no means! Eternity is worth it!" (Werke, XII, 116). So act (or so be) that you would be willing to act in just that manner (or be just this way) an infinity of times. In this way, perhaps, men might feel less of resentment. In each accepting ourselves, we should each accept one another. In existentialist terms, it is a plea for authenticity. Though why this plea could not be made independently of the doctrine of eternal recurrence is difficult indeed to say. But that doctrine does, Nietzsche seems to feel, rule out the possibility of another and different life, say in heaven or hell. In place of that view, think how liberating, he argues, the doctrine of eternal return would be. "Let us," he adds, "stamp the form of eternity upon our lives" (ibid., 124). Think, he tells us, "what effect the doctrine of eternal damnation has had!" (ibid., 119). "This life is your eternal life" (ibid., 126).