Making Time Count

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If you asked me the question "What is the time?" I could look at my watch—or these days, at my phone—and tell you. It's [current time=A]. But what if you changed your question, by leaving out the definite article? Suppose your question weren't "What is *the* time?", but more simply, "What is ... time?"

In that case, it's hard to know what my answer would be, but easy to suppose that it could not be as immediate, or exact, or conclusive as the time [A] was to your first question. And about a matter less suited to our phones than to some theory, even philosophy, about the nature of time.

The Freshmen, in fact, have just finished reading one—Aristotle's; and my debts to it in this lecture should be clear before I'm done. Still, the question that guides me tonight is not "What is time?"—at least if asking this question means turning away, either at once or for good, from our phones, our watches, our clocks; and as if our telling of time had nothing to tell us—to teach us—about the nature of time. My question, then, is something less like "What is time?" and something more like: "What is it about time that allows it to be told?" What is it about time that allows us to ask about the time—definite article reintroduced—and to answer that question with all the immediacy, the exactness, and the conclusiveness of "it's [time A]"—or rather, "[current time=B]." My hypothesis for the next hour, then, will be that in telling you it's [time B], or indeed in referring to "the next hour," and more generally in every ready-at-hand way we have of marking time, of measuring time, of reckoning time, there is something important to discover, even essential, about the nature of time. Something that accounts for time, in our counting of time.

But what could this be? After all, there is nothing essential in my calling the next hour an "hour." For I could just as well have called this hour "60 minutes." Or even "3,600 seconds"—if I've done my math right; and despite the fact that the number 3,600 is not the number 60, nor is 60 the number one—if there is such a number. Our counting of time in this sense, the sense in which we use numbers to mark *intervals* of time, seems borrowed and arbitrary rather than rooted or necessary—a matter of convention rather than essence.

And there is even more convention, it would seem, in the counting of time that led me to say it was [time A], or [time B], or, now, [current time=C]. This is the count where we use numbers to mark *moments* of time rather than intervals. For while it may be [time C] in Annapolis on this side of King George Street, it is [time C + 12] on the other side—and only [time C minus two hours=D] in

Santa Fe. I could also call it [time D] in Flagstaff—if I were giving this lecture before Spring Break. But in giving it tonight, I will have to admit that it is only [time D minus one hour=E] in Flagstaff, since Arizona refuses to observe Daylight Saving Time. And if I were giving this lecture before the Uniform Time Act of 1966, I wouldn't know what to say about the time elsewhere. For back then, cities in the United States could choose their own dates for Daylight Saving Time at will; and they did, in what Time Magazine called a "chaos of clocks." And not the clocks we find populating Einstein's theory of relativity, as if cities had discovered themselves in different frames of reference with no present moment in common; but rather the clocks we more innocently use in everyday life, where there is taken to be a present moment in common, but no like moment in number, it seems, no number that belongs to "now," to stop us from assigning it different numbers at once—where "now" is [current time=F] in Annapolis, [time F minus one hour] in Memphis, [time F minus two hours] in Santa Fe, or [time F minus three hours] in Flagstaff.

And giving content to this present moment, still gives us no sense of the number that might belong to it. The "now" that begins Friday Night lecture in Annapolis, for example, is officially 8:00pm, but it used to be 8:15. In Santa Fe it is 7:30, but used to be 8:00. Similarly with the "now" that begins seminar: for undergraduates in Annapolis, this is 8, but for graduate institute students 7:30—and 7:30 in Santa Fe for both. —Except for the 4:30 seminars, one for each class, at least the year I was in Santa Fe. And if we include seminar-parties, where the start-time is assigned at will, well—there would seem no number excluded in principle: which is again as if to say there is no "now" in number; no number that belongs intrinsically to any present moment. And if time itself exists only in the present moment, since the past is no longer and the future not yet, then there would seem to be no number that belongs intrinsically to time.

But then we might have inferred this much—that time is one thing and number something else—even without such examples. For if we think of time as having any existence beyond the present moment, it is most likely when we think of this moment as ever-new or -changing, making time like a river, moving always forward in a continuous flow. But our counting of time uses number to form a different kind of succession, which is never continuous and usually recurring: going repeatedly back to 1 from day to day, week to week, month to month, and year to year, even as time itself rolls on—a fact soon enough written on our faces, even if we erase it from our clocks and calendars.

Our counting of time in these respects even suggests that the count is not really of time, but rather of place, in following motions that, unlike time, continue and finally complete themselves with respect to place. We count to 365, then, in following the yearly trip of the earth around the sun; as we count to 30—or close enough—in following the monthly trip of the moon around the earth; or to 24, in following the daily trip of the earth around itself. And dividing this 24 into its units, accordingly divides the earth into 24 places—each a so-called time zone, explaining the difference in time between Annapolis and Santa Fe as really a difference in place. Even our weekly count to 7 in this sense, which oth-

erwise has no source in the completed motion of any celestial body, might still be said to follow one—the very motion that, on one account at least, created every celestial body, along with everything else, over six days of work finished by a seventh of rest. Nor need we look so far above us for seeming proof that our telling of time is really of place. For we can find this proof writ small on the face of any watch, where every number has its place, and every time in turn, its position. Yet if time itself has no place or position—and we might even consider it a negation of any place or position—then our every clock, it seems, tells a bald-faced lie.

But this is to argue against what I earlier called my hypothesis for the next hour—now my hypothesis for the next 45 minutes—which is that our every clock tells the truth. And perhaps it is time—whatever that may be—to make the case for our clocks. Consider again our sense of time itself, when we think of it like a river. In certain respects—decisive respects—the simile falls short. For the motion of a river, we can see and say, is made by the river, as it moves along its banks, now more swiftly, now more slowly. But in the motion of time, there is nothing like the river or its banks to see, nothing visibly moving relative to anything else. And no surprise, for there would only be anything visible, it seems, if the motion of time were a motion in space. This motion is already peculiar, then, in belonging to time. And it becomes still more peculiar when we consider its progress. We sometimes fancy that, again like a river moving swifter or slower, time itself can fly or drag. But if time could really do this, how would we know? When anything else changes its speed, after all, we can use some unit of time to confirm it, as a change in the distance traveled, for example, per second. But we are deprived of this unit to confirm any change of speed in time itself; for it is the unit now in question: is this second, when compared to the last, or the next, faster or slower, longer or shorter? And the very concept of speed, since this involves the concept of distance, seems ill-applied to time, even before we come to the matter of changes in its speed. But what, then, becomes of time's supposed motion, by any but a false analogy to some movement in space? For in belonging to time and time alone, this motion bears no trace of being accomplished at any speed, by any mover, from any place to any other place.

The more plausible conclusion, it seems to me, is that time doesn't move like a river, because it doesn't move at all; if it did, then it would no longer be time, but at best, something *in* time. But to admit even this much risks another analogy between time and a river—in this case, a river that doesn't move, but still provides a medium for what does move, as it travels across any length of space, only by also traveling through some length of time. But again, what could we mean by a "length of time", save by another false analogy, now to some extent of space? For in belonging to time and time alone, this length, or more generally this medium, bears no trace of having any extent. Indeed, the only conception of time to this point that seems to escape false analogies in space is one that restricts its extent, its existence, to "now," the present moment, which is no larger, in that case, than a point, having no parts in having no length. But even this is a false analogy, since any actual point has a position in geometric

space—for example, at either extremity of a finite line. The only way, then, to rid the analogy of this last contact with space, is to rid the point of any position. But what, then, are we left with? Evidently, what has neither part nor position. But if the present moment is then like anything at all, it is like a unit. It is like the very thing out of which numbers are made.

Now move on to the sense in which the ongoingness of time is really better conceived as succession, in which continuity has no place, and by analogy to counting.