

Time To Think

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*A reading from a discussion among Einstein, Planck, and Murphy, from out of the past, says something about the future and past of the effects of physical science. The reference is to the content of an “Epilogue: A Socratic Dialogue” from **Where Is Science Going?**²*

The following is a “limited edition discussion note” supplied to forewarn relevant associates not within the discussions of the narrower, “basement-centered” group. The intention is to avoid leaving the broader circles of our associates “in the dark” on this very important topic of research.

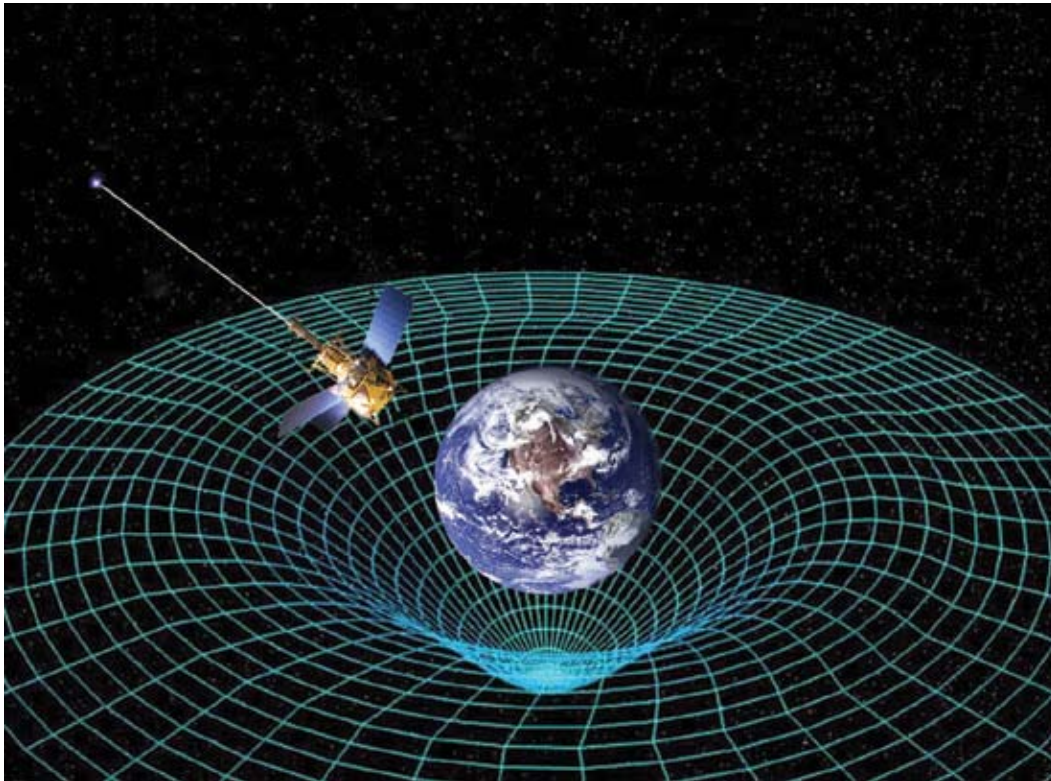
During the recent days—and, in the broader sense, the recent weeks, the strategic implications of the present crisis respecting the subject-matters subsumed under the heading of forecasting the change in the galactic “weather” are to be considered as a crucial strategic factor in mankind’s presently menacing situation.

The very nature of the relevant subject-matter posed by that matter of concern, impels a responsible sort of policy-shaping process toward previously known, but much neglected matters of physical science, such as those held over from the hey-days of collaboration between Max Planck and Albert Einstein. The central feature of that subject-matter, is “the physical nature of time.”

The peculiar features of that investigation, which still remains an unsolved matter, but, now, an urgent matter, are the following:

Between those two, already noted, historically more significant participants, historically, in the three-way dialogue on that occasion, the agreed topical issue was the irony created by the debatable issue: Is the sequence of events the expression of a timely causality? What

2. Max Planck, *Where Is Science Going?*; preface by Albert Einstein; translated and edited by James Murphy (London: George Allen & Unwin Ltd., 1933).



NASA

Let us recognize that “clock time” is not “physical-space time”: We must not be so silly as to presume that sequence and causality are simply equivalent. Shown: An artist’s concept of Gravity Probe B orbiting the Earth to measure space-time in four dimensions.

should be considered as a pathway of response to that highly existential question of physical science, suddenly becomes highly theological, as follows.

The relevant fact of the matter, is that the Solar System is currently approaching a condition, with respect to its movement to a “place” in the galaxy which is comparable to the greatest mass-kills of living species in former comparable occasions, let us say, sixty-odd millions years ago. The additional, related irony of our presently impending situation is, that the human species has existed on Earth only a few millions years.

Now, if man were merely a species of animal life, the issues posed by oncoming galactic developments might be considered pathetically moot, were mankind not mankind as, for example, Academician V.I. Vernadsky has defined the Noösphere as distinct from the Biosphere otherwise. However, the problem posed, nonetheless, is that mankind so far has done damned little recently, to make suitable preparations for dealing with such a threat. The point I underline in this report, is, therefore, what might be an adequate approach, by mankind, for dealing with this ostensible threat to the human species?

Science Now Meets Theology

During the recent several days, most emphatically, I have been “much bestirred” by the recognition that the most likely course to be taken to define a possible solution to this threat to our species is to be found in that area of scientific investigations which had been underway at the turn of the Nineteenth into the Twentieth Century by such exemplary notables as Max Planck and Albert Einstein. Conveniently, but not accidentally, a relevant excerpt of a publication from that time had been sent to me overnight, as a matter which had been prompted to come to my attention because of our team’s placing a high priority on what is currently the highly relevant subject of the physical meaning of “time.”

I was reminded, by receipt of that forwarded material this morning, that Einstein and Planck had come to a crucial point in their dialogue which pointed in the direction of an extremely important point of emphasis of great potential relevance to our concern in this matter of time. In fact, Einstein had referred, implicitly, to this matter of time, in his emphasis on the most significant of the implications of Johannes Kepler’s uniquely original emphasis on the conception of a uni-

verse as being finite, but not bounded.

This same issue had arisen during an exchange between me and my associate Cody Jones during this past Wednesday's LPAC Weekly Report on the subject of lapse of time within our immediate galactic system. Rather, let us recognize that "clock time" is not "physical-space time" as Einstein and Planck had sought to deal with that issue.

In fact, as in that portion of the document which had been forwarded to me with overnight dispatches had emphasized, both Planck and Einstein had emphasized with sufficient clarity, that we must not be so silly as to presume that sequence and causality are simply equivalent. Retrospective causality is an important expression of reality in the universe of experimental physical science.

On this account, the statistical methods emphasized by the dupes of such empiricists and, worse, positivists, who followed such perverts as Norbert Wiener and virtual idiot-savant John von Neumann, have typified the mass-idiocy which prevails among putative economists and others currently.

The relevant argument on that point runs as follows.

In even any real-life sort of non-linear process, the outcome of an ongoing process's arrival at some stage, does not "predict" the next state of actual processes in the real universe. This was exactly the underlying implication of Einstein's "finite but not bounded." This is made most clear in terms of an individual person's discovery of a previously undiscovered universal principle. Indeed, such a discovery tends to redefine at point "B" of an assignable sequel existing at the projected outcome at point "A." This is the most obvious implication of discoveries of actual universal physical principles and their effects, at point "B," on what had been "predictable" effects of an ongoing process extant at point "A."

Now comes, in proper order of sequence, the theological complement to the point just made above.

The existence of the universe is proof of an earlier state of existence, but, not necessarily, the same species of universe. Certainly, the idea of a "non-universe in time," is not a fungible conception for mankind's experimental experience today. Creation can not be an event from nothing; there must be a creator of any kind of origin of a quality of existence, a something; any contrary view is sheer nonsense.

Then, there comes an important clue, the clue sup-

plied with emphasis by Vernadsky and relevant among his followers. The function of time among living processes, is not congruent with the function of time for non-living processes. So far, on these two stated accounts, the role of time in living processes, and the universal principle of the necessary existence of finiteness in principle of the universe, the notion of "absolute clock time" falls out of the window.

Now, consider what has been written here thus far in a fresh retrospect.

Is the process of creation not kinetic, as Aristotle's argument presumes? Or, is it retrospective, as the effect of the introduction of actions based on the employment of some newly discovered principle proposes? If so, is not the quality of the existing universe changed, as if retrospectively? If so, then, is such a change of the past not to be considered?

If so, is not the rate of change of the system to be considered? What, then, are the ontological implications of the terms "past," "present," and "future"? What then, of the "variability" of the rate of change, as with the Vernadskyian notion of the specific physical distinction of the respective tempos of effects of life and non-life?

The More General Problem

Whatever the notion of "a beginning" of what we term "the universe" might prove to be, one certain perceptual point of crisis prevails in practice for us now.

Whatever the use of the term for a notion of a general "creation" might actually come to signify as a general state of, in effect, scientific progress, there can be no separation of creation from qualitative expressions of development. Time as in and for itself, simply does not exist; development, or decay, do, as do differing rates of these considerations. Implicitly, Einstein's portrait of Kepler's universe stands.

Creation? The "Creation of What?" The intrinsically anti-entropic character of our universe comes into play for us, thus. What the universe was yesterday, is what it has become today. What, therefore, is the physically efficient measure of time, as a variable form and magnitude? What, then, can be the efficient meaning of the idea we should attach, practically, as humanity, to the physical, rather than constant-clock-meaning of "time"?

There is, clearly, much more to be said, and that soon.

That much said, the fact is, that times change.