COMMITTER VI
The Universe and Its Origin:
From Ancient Myth to Present Reality
and Fantasy

DRAFT - 10/15/85 For Conference Distribution Only

## LEARNING FROM THE VELIKOVSKY AFFAIR

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## **DISCUSSION PAPER**

on

Lloyd Motz's

THE VELIKOVSKY AFFAIR

The Fourteenth International Conference on the Unity of the Sciences Houston, Texas November 28-December 1, 1985

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Motz has given a nice summary of the Velikovsky Affair, and has added usefully to the public record from his first-hand experience of Velikovsky over several decades. Much of Motz's interpretation is consonant with the views expressed in my recently published analysis (Bauer 1984); but for purposes of discussion I shall focus not on our many points of agreement but on issues where our views differ somewhat: what were the sources of Velikovsky's appeal? and what can the controversy teach us about the scientific enterprise and its part in human affairs?

Motz sees Velikovsky's scholarly credentials as part of the reason for his public appeal, but I find that implausible: too many analogous topics become hugely popular without the benefit of such credentials on the part of the protagonists. That Velikovsky was taken seriously by some respected scholars, however, will certainly have been due in part to his erudition; and the public may well have been impressed that some well-established people gave Velikovsky credence.

Motz also ascribes Velikovsky's appeal in part to his challenge to science, and here I agree unreservedly. But we should also look beyond that to ask, why should a challenge to science have popular appeal? I suggest, because more than a century ago

science seemed to promise a coherent, rational, widely understandable world-view to replace the dogmatic, ossified religions that had not successfully incorporated the fruits of knowledge gained by the natural philosophers and the developing community of science; and because science has not delivered on that promise while continuing to make that promise. The world-view developed by science has indeed been rational, but so far only in detail and in minutiae, not in a global picture that includes fundmental questions of origins and the role of human beings: a Big Bang, undirected evolution, black holes, quantum mechanics, and the like give little help in the human quest for understanding of life and the establishing of ethical bases for maintaining life. Again, the coherence of science is indeed very real, but it is evident only to the practitioners of science and is, also again, not yet relevant to the deeper questions of human affairs: thus sociobiology is more a claim and a slogan than a useful application of established knowledge. And science has become anything but widely understandable.

So we have been disappointed by science, and have come to resent its arcane power in directions we don't much care for together with its lack of power or insight on the questions that most concern us. I think a deeper source of Velikovsky's appeal, then, was his apparent offering of a coherent, rational, widely understandable world-view: we can grasp the notions of catastrophe and trauma and their consequences, and we can follow discussions of legends and descriptions of natural events that eschew

scientific jargon and mathematics. Velikovsky seemed to offer a framework of theory that any intelligent person could himself use to explain quite plausibly many aspects of human history and human nature.

Unfortunately, of course, Velikovsky was substantively wrong on all essential points of science; and so his approach and his world-view could serve no better than the religions that also succumbed to the challenge of science: parables that could in principle serve human needs and moral ends are useless if they are not in practice consistent with the partial truths of science and of technology.

Here, I think, is one of the important lessons of the Affair: that the struggle for a humanly relevant understanding of nature is no less critical now than it was in the 19th century, albeit we are not nowadays so clear that this is the fundamental root of our malaise. We can become clearer about that if we become clearer about the nature of the scientific enterprise, that it cannot deal with absolutes and therefore need be no direct competitor of any sufficiently sophisticated religion.

Motz and I have some significant differences, I believe, about the nature of the scientific enterprise. Historians, philosophers, and sociologists of science in particular have shown conclusively that science does not provide utter certainty or utter objectivity (for outstandingly authentic and insightful discussions of science, see Ziman (1968, 1976, 1978)). Science does provide considerable pragmatic reliability, enormous consistency, great

and increasing coherence; but, lacking in absolutes, science is based on communality and consensuality. One little-discussed corollary is the difficulty for any individual to do good science in isolation from the contemporary scientific community, because "good science" is, at any given time, defined by that community: no other definition being possible since science does not deal in absolutes. Not that science is -- as Velikovsky and his supporters charged -- by fiat and conspiracy a closed guild that capriciously excludes such ones as Velikovsky: science is done and defined and judged by communities of specialists of necessity. Velikovskians did not and do not understand that; and I think Motz is not fully clear about it when he concludes that scientists should welcome such people as Velikovsky who force us to re-examine our basic assumptions: Velikovsky stimulated no useful re-examination of assumptions within the substantive content of science. (He did, as I also acknowledged in my book, stimulate many people to useful thought about many other things.)

That outsiders can hardly contribute usefully and deeply to science follows from another line of argument too, well illustrated by Velikovsky's works. The outsider is not stepping on the shoulders of the giants who preceded (see Merton 1965), he tries to recapitulate their endeavors himself and by himself, to do for the first time what many others before him slowly learned to do successfully. The difficulty of doing anything for the first time is well recognized; and so it ought not to be surprising when Velikovsky, for instance, falls into so much error as he tries to

be original in archaeology, chronology, etymology, folklore, history, etc., as well as in astronomy, chemistry, cosmology, physics, etc.

Motz disagrees with those who charged that Velikovsky's motive was to elevate himself to the ranks of the greatest minds. In my book I drew examples, however, to support that charge, for instance Velikovsky's comparisons of his own situation with those of such intellectual giants as Darwin, Galileo, etc. And Alfred de Grazia, who knew Velikovsky well, has bluntly made that charge too in his recent memoir (Bauer 1985, De Grazia 1984). Motz's discussion of this issue I found not only plausible but also convincing. Velikovsky began as a dedicated scholar, seeking to enlarge human understanding, with no greater a desire for self-aggrandisement than most of us are prone to. He fell into claiming too much for himself because, as his work developed, his conviction was captured by the discoveries and insights he thought to have come to, and he paid too little heed to the likelihod that their conflict with generally accepted notions meant that his discoveries were flawed, not that accepted knowledge was significantly and often in error. Thus he eventually came to appear as seeking the mantle of recognized authority and elevation to the ranks of the great.

Perhaps this account differs from the charge of motivated self-aggrandisement only in nuance, but it is an important nuance, particularly so of course in respect to how we remember Velikovsky the man. I'm glad to accept Motz's account, based as it is on

personal knowledge of Velikovsky, for it helps me further to understand the human Velikovsky in whom I became quite interested while I was trying to analyze the controversy he had brought into being. Parenthetically but not irrelevantly, let me mention that some Velikovskians have criticized my total reliance on the public record: I should, they say, have sought to interview Velikovsky and to gain access to the huge volume of his unpublished works. But this criticism is again founded on a misconstrual of the scientific enterprise: science is a communal and public endeavor, scientific work is and must be judged communally and publicly, and nothing Velikovsky could have said to or shown me in private could alter the nature of his attempt to contribute to science; and it is that attempt with which my analysis was primarily concerned.

Motz's cogent discussion of Velikovsky's motivation and the development of his thought illustrates the chief lesson that the controversy can teach: if he is significantly in ignorance or error about the content of science, or if he is significantly in error about the nature of the scientific enterprise, then even the most intelligent, erudite, and hard-working individual can become captivated by propositions that are quite wrong, that even give the appearance of rank pseudo-science. Little step by little step, each in itself plausible, Velikovsky moved from scholarship to pseudo-science, a move all too easy for one who works outside and in essential isolation from a scientific community. (A similarly fatal progression by a man of somewhat similar background and generation can be seen in the case of Wilhelm Reich.) But the

Velikovsky Affair shows that others beside Velikovsky went badly astray because of their ignorance about the nature of science, notably those scientists who acted improperly in the light of the very ideals they claimed to be serving, and the social scientists who invalidly criticized science on the basis of fundamental misconstrual of scientific activity.

All of us, of course, suffer from some degree of ignorance about the content of science, and from some degree of error about the nature of science. The prime lesson of the Velikovsky Affair for all of us, then, is that we had best be aware of that ignorance, of our fallibility even in matters we think to know well; the Affair might teach us the benefits of humility. And here I come full circle to, again, substantial agreement with Motz. Though he may not have emphasized it explicitly, it is clear enough that Motz's concern has been to stimulate a necessary sense of humility: he urged and again urges the scientific community to temper its arrogant presumption of infallible knowledge, to recognize that the scientifically unlearned Velikovsky could nevertheless have valuable things to say; by pointing to the fallibility of prediction as validator of hypotheses, Motz sought to make Velikovsky and his supporters less arrogant about the apparent success of Velikovsky's "advance claims", and more broadly about their understanding of what science is; and from the paper he has now presented, it is evident that Motz sought to temper Velikovsky's dogmatism by showing him in private discussion the need to practise some humility toward the validity of

technical matters established within the scientific enterprise.

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