

# Creationism, Catastrophism, and Velikovsky

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*Catastrophism is a tenet of biblical fundamentalism (creationism).  
Immanuel Velikovsky (author of Worlds in Collision) was a neocatastrophist.  
What use did creationism make of his theories?*

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Catastrophism has long been an important tenet of creationism as an alternative theory to Darwinian gradualism (uniformitarianism). The theory of catastrophism was introduced by the French comparative anatomist and founder of the science of paleontology Georges Cuvier (1769–1832). He believed that each species originated independently and remained unchanged until it became extinct. He saw in the stratification of rocks, and the sequence of fossils therein, evidence of sudden geological changes and episodes of biological creations and extinctions caused by catastrophes such as massive volcanic outpourings, violent earthquakes, widespread flooding, and other natural processes. To biblical fundamentalists, catastrophism provided an explana-

tion for the prior existence of fossil species, the biblical flood, and other events that could be attributed to divine intervention. This made it possible to believe that all species (living and extinct) had been produced within the time indicated in the Bible since the creation of Earth and its inhabitants (Strickberger 1990).

Modern biological science accepts that some celestial catastrophes have greatly influenced the evolution of subsequent life forms (e.g., a mass extinction is thought to have resulted from an asteroid collision with Earth at the end of the Cretaceous period about sixty-five million years ago). This theory was first published one year after the death of Immanuel Velikovsky (1895–1979), whom some have suggested to be the father of modern catastrophism (neocatastrophism). His unorthodox theories, however, have been widely debated since the publication of his book *Worlds in Collision* in 1950. At least two generations of college students have grown up since then, but few today recognize his name, let alone know anything about the controversy he stirred up. His place in history continued to be reevaluated after his death in 1979 in many publications, including the SKEPTICAL INQUIRER and *Skeptical* (Bauer 1980; Frazier 1980; Oberg 1980; Bauer 1981; Gardner 1985; Ellenberger 1986; Bauer 1995; Cochrane 1995; Ellenberger 1995; Morrison 2001).

Meanwhile, on numerous occasions, biblical fundamentalists in the United States attempted to pass laws allowing or even requiring the teaching of “scientific creationism” in science classes of public schools. After several unsuccessful attempts to do so, creationist doctrines reappeared under the new banner of “intelligent design” (ID) theory. The latest legal defeat of the ID movement occurred in November 2005 when a federal court in Harrisburg, Pennsylvania, ruled that ID was just creationism in disguise (Humburg and Brayton 2006; Frazier 2006; Forrest 2007). After all, a rose by any other name is still a rose. Since catastrophism is still a basic tenet of creationism and ID as promulgated by the Institute for Creation Research (ICR), and several of Velikovsky’s theories provide catastrophic explanations for some of the most important events in biblical history, I wondered if the creationists used any of his theories to support their literal interpretations of the Bible. Velikovsky could be found as recently as 1985 on ICR’s Web site, and he still has many supporters (although not necessarily creationists) on the Velikovsky Web site ([www.varchive.org](http://www.varchive.org)). As a skeptic and evolutionary biologist (Stansfield 1977), I naturally wanted to know how creationists initially reacted to Velikovsky’s book in 1950 and why they responded as they did thereafter. This article reports on aspects of the Velikovsky affair that most closely bear on my search for “some possible answers (but not necessarily the only ones) to these and related questions that we shall investigate” (paraphrased from the introduction to the television series *In Search Of*).

## Worlds in Collision

Here are the principal hypotheses in *Worlds in Collision* (1950). The gods of many ancient cultures were represented in the sky by planets, comets, and stars. Greek authors such

as Ptolemy and Homer described the birth of Athene (planet Venus) as having sprung from the head of Zeus (planet Jupiter). Thus, by a mechanism that Velikovsky did not explain, the planet Jupiter ejected protoplanet Venus as a comet (Morrison 1977). This comet passed close to Earth around 1500 B.C. and was directly or indirectly responsible for the plagues of Egypt described in the biblical book of *Exodus*. Material from the coma of this comet made the river Nile turn red; flies and scarabs fell from the comet onto earth; earthquakes destroyed Egyptian buildings. The sea parted, and the Children of Israel wandered for forty years in the wilderness. Manna rained down as carbohydrates from the comet’s

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tail; Velikovsky proposed that hydrocarbons from Venus were converted to carbohydrates (manna) in Earth’s atmosphere by “any of several well known reactions.” The comet returned when Joshua commanded the Sun to stand still. It apparently did so for about a day; Velikovsky proposed that Earth stopped rotating (making the Sun appear to stand still) and then somehow returned to its normal rotational speed. The comet then nearly collided with Mars and knocked it out of its orbit, causing it to nearly collide with Earth on at least two subsequent occasions. As a consequence, Mars settled into its present orbit while the comet took a nearly circular orbit around the Sun and became the planet Venus. A second series of catastrophes occurred during the period 776–687 B.C. in the Near and Middle East where populations were decimated or annihilated, earthquakes occurred, the sea invaded the land, and the climate changed (Velikovsky 1955).

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The Noachian Deluge is mentioned in Velikovsky's *Stargazers and Gravediggers* (1983) where he claims "I did not discuss the Deluge [in previous books], much less try to prove its universality." Great floods are part of mythology in many cultures. However, geologists find no evidence for a worldwide flood in the geological record for at least the last ten thousand years. The ICR has a strange way of explaining the Great Deluge by a combination of supernatural and natural events. God miraculously caused a water vapor "canopy" in the upper atmosphere to condense into torrential rain and also caused

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the release of vast underground reservoirs of volcanically heated brines to cover Earth in a catastrophic worldwide flood. To end the flood, God also miraculously made the continents rise and the ocean basins sink along vertical faults. Between the initiation and termination miracles, "the Flood accomplished its work of destruction by purely natural processes. . . . Thus [creationist] Whitcomb . . . commits himself to explaining the bulk of geological evidence naturalistically" (Weber 1980).

Although Velikovsky did not explain how comet Venus was torn from planet Jupiter, creationists could have proposed that it occurred miraculously as part of the final stages of solar system formation, and then used the naturalistic affects of the comet on the biblical events that Velikovsky described. Why they failed to do so begs for an answer.

### **Velikovsky's Reception**

Why did Velikovsky become so popular with the general public and remain so for such a long period of time? Carl Sagan opines that *Worlds in Collision*

is an attempted validation of religion. The old Biblical stories are literally true. . . . Velikovsky also attempts to rescue not only religion, but also astrology: the outcomes of wars, the fates of whole peoples, are determined by the positions of the planets. . . . Some young people are put off by the occasional pomposity of scientists [and] may take some comfort in seeing scientists get their lumps. . . . To the extent that scientists have not given the reasoned response his work calls for, we have ourselves been responsible for the propagation of Velikovskian confusion. (Sagan 1977)

The attempt of some scientists to censor *Worlds in Collision* was viewed by some people as a cover-up by an elite group of insiders who feared open public discussion of revolutionary scientific ideas. Velikovsky could then be seen as a persecuted martyr (like a modern Galileo), but creationists did not avail themselves of this opportunity.

Leroy Ellenberger is a chemical engineer who was a confidant to Velikovsky for the last eighteen months of his life and served as the Executive Secretary and Senior Editor for the Velikovsky journal *Kronos* (1978–1986). Thereafter, he became a turncoat and one of Velikovsky's most persistent critics. In personal correspondence with Ellenberger, he told me that Velikovsky was a Zionist but apparently did not openly display his religiousness.

I also asked him about the creationists' reaction to Velikovsky following publication of *Worlds in Collision*. He replied:

We [Velikovskians] did not spend any time at all pondering the creationists' reaction/attitude towards Velikovsky during the time I was an insider: 1977–1986, altho' we were aware of the many debunks/critiques by creationists, especially in CRSQ [*Creation Research Society Quarterly*]. . . . I recall taking consolation that at least the Velikovskians were NOT creationists (for the most part with Bob Bass being the major exception) and I know that Velikovsky had no sympathy for their cause despite the fact that he did quote at least one creationist flood book in *Earth in Upheaval* for data (which he could just as well have gotten from mainstream sources). It also bothered me even then that Lew Greenberg and others at *Kronos* relied on creationist critiques of radiometric dating, which I knew to be flawed even then.

My search of the Creation Research Society Web site produced abstracts from only four papers published in CRSQ containing references to Velikovsky, and only one of them helped answer my questions. An abstract of one paper says that Keister (1976) criticized Velikovsky for failing to provide a mechanism for disposing of tremendous orbital energies: "Some theological aspects of Velikovsky's theory are discussed and it is pointed out that whenever the theory and Scripture truly disagree, the theory obviously must be modified."

I also contacted ICR and received a response from Pierre D. Willems (2003), ICR Public Information Officer.

*Has ICR ever taken an official position on the catastrophism theories of Velikovsky?*

Nothing officially stated but neither has ICR written anything in support of his ideas.

*How was his work received by various groups within the creationist community outside the ICR?*

Some writers have mentioned his ideas but we are not aware of any following in support of Velikovsky's theories on celestial collisions.

The Discovery Society, a subsidiary of Discovery Institute's Center for Science and Culture, is dedicated to challenging Darwinian evolution and validating "the intelligent design of life and the universe." Searching its Web site via Google for "Velikovsky" resulted in only one hit that was of no help in my

research. Since three of the most prominent creationist organizations had so few citations for Velikovsky, I conclude that creationists have little if any interest in his theories, rather than being actively involved in debunking/critiquing them. But why?

Creationists seem to relish debates among scientists because they tend to view these squabbles as indicative of weak theories. For example, there are many questions about the details of evolution that have not been resolved, but that does not mean that the basic premises of evolution theory are on shaky ground or groundless altogether. The fact that Velikovsky's theories were rejected by most mainstream scientists might have been exploited by creationists as another example of science gone wrong. Siding with Velikovsky's critics on common scientific grounds might have given creationists the appearance of scientific respectability, which they so desperately wish to acquire by referring to themselves as "creation scientists."

The catastrophist theories presented in Velikovsky's 1955 book *Earth in Upheaval* were touted as offering a new understanding of evolution that conflicts with the gradualism in Darwin's theory, something one would think that creationists would have relished. In April 2002, I asked the National Center for Science Education (NCSE) why it has no information about him on its Web site, and received the following reply from Glenn Branch, Deputy Director of the NCSE. "Velikovsky's views, although as nutty as creationists', are generally passé and so not nearly as much as [*sic*] a threat to good science education, so NCSE doesn't focus its efforts on them—which is not to say that we're not interested in them. If, for example, someone published a new book defending Velikovsky, we would probably try to review it in RNCSE. You might look at [www.talkorigins.org/origins/faqs-catastrophism.html](http://www.talkorigins.org/origins/faqs-catastrophism.html) and <http://skepdic.com/velikov.html> for some basic information about Velikovsky."

In 1991, the NCSE acquired *Creation/Evolution*, a magazine/journal formerly published by the American Humanist Association. An index was published for the first twenty-five issues of *C/E* (1980–1989). Only three articles are listed under "Velikovsky" in the index, none of which shed any light on the subject of my investigation, aside from that of Price (1980, first issue; the year after Velikovsky's death) discussed below. Unfortunately, the NCSE has published no index for its own *Reports*. This leaves me wondering about Velikovsky's influence on science education, especially during his numerous lectures on college campuses.

Why have creationists ignored or discarded Velikovsky's data and theories, when they seem to grasp at any other pseudoscientific straws that can be construed as supporting their cause? Are Velikovsky's views any "nuttier" than the flood geology of hydraulic engineer Henry Morris, who interpreted the fossil succession in the strata of the Grand Canyon as due to differential settling out from a worldwide flood within historical times? Morris, now dead, was among the founders of the Creation Research Society in 1963, and he served as president of the Institute for Creation Research from 1970 until 1995.

Although these kinds of interpretations have been thoroughly refuted in the scientific literature, the staff members of



Immanuel Velikovsky, photographed by Fima Noveck ca. 1974 [http://en.wikipedia.org/wiki/Immanuel\\_Velikovsky](http://en.wikipedia.org/wiki/Immanuel_Velikovsky)

ICR continue to repeat their versions of Earth and biological history to anyone who will listen. It seems that if a lie is told often enough, a sizable segment of the general public will be gullible enough to believe it. Fundamental creationists count on this and the fervor of true believers in the inerrant Biblical record to make the facts of nature conform to their view. Velikovsky played the same game, continuing to present the same data and interpretations even after they had been thoroughly refuted by empirical scientific evidence or arguments based on well-established astronomical, geological, or biological principles.

Velikovsky believed that all ancient manuscripts (such as the Bible), myths, legends, and folk tales present an accurate account of eye-witnessed history. As Robert Price (1980) noted, "First [Velikovsky] concludes that Mars once must have nearly collided with the earth; then he shuffles astronomy accordingly." In the same manner, [ICR resident faculty members] Gish and Morris discover in Genesis that the Earth is merely thousands of years old with a six-day period of creation; they then practice ventriloquism with the data of geology and biology. In both instances the dusty pages of ancient legend dictates in advance the results of scientific "research."



In this respect, Velikovsky's hypotheses go well beyond those of most creationists. It seems likely that creationists have ignored or discarded Velikovsky, at least in part, because they disapprove of his equating the legitimacy of ancient legends and myths of Earth and life histories on a par with the accuracy of the biblical accounts. ICR member Bert Johnson told me, "From what I understand, what distinguishes Velikovsky from most Creationists is his regard for ancient myths from all societies as being, like the Bible, more authoritative than scientific investigation. While it is interesting when myths [showing] great similarity to Biblical accounts are found throughout the world, we [ICR] believe that only the Biblical account is inerrent [*sic*] and should be trusted."

In the seventeenth century, Rev. Thomas Burnet authored the most popular geological treatise of the time—*The Sacred Theory of the Earth*. "Burnet's primary concern was to render Earth history not by miracles or divine caprice, but by natural physical processes. . . . John Keill, an Oxford mathematician, argued that Burnet's explanations were dangerous because they encouraged a belief that God is superfluous" (Gould 1977). In the preface [page vii] to *Earth in Upheaval*, Velikovsky writes, "I present here some pages from the book of *nature*. I have excluded from them all references to ancient literature, traditions, and folklore; and this I have done with intent, so that careless critics cannot decry the entire work as 'tales and legends.' Stones and bones are the only witnesses."

Thus, like Burnet, Velikovsky proposed that many *natural* catastrophes have plagued our globe in both prehistoric and historic times. It seems likely that biblical creationists reject Velikovsky's theories in part because they want to believe that these catastrophes were mediated by the hand of God as miracles rather than due to natural processes. Furthermore, Velikovsky had no natural explanation for the greatest catastrophe in the Bible—the Noachian flood. Creationists could have claimed that, since Velikovsky had no natural explanation for the flood, it must have had a supernatural cause. Why they did not do this remains a mystery.

I queried AnswersInGenesis.org: "I'm curious as to why there is so little information available about Immanuel Velikovsky and his theories about catastrophes in recent (especially biblical) times. Do you have any publications that discuss his contributions?" They replied, "Don DeYoung's *Astronomy and the Bible* has some brief but helpful information on V's ideas and their acceptance or non-acceptance by creationists." So I ordered a copy (I reviewed it in the March/April 2007 SI) and found the following information on the last page: "Don DeYoung holds a Ph.D. in physics from Iowa State University and a Master of Divinity from Grace Seminary. . . . He firmly holds to the literal creation view of origins." De Young, a resident faculty member of ICR, wrote:

Velikovsky's ideas are a mixture of truth and error. His proposal of a recent Ice Age is shared with creationists, as are his challenges to "the doctrine of uniformity" (that rates of formation and erosion have always been constant). However, Velikovsky is hardly a friend of creationists or Christians in general since he fully accepted evolutionary theory. Velikovsky denied the Genesis flood and attempted to explain away the Old Testament miracles as natural catastrophes. . . . Although his writings are valuable

for study, he was certainly as fallible in his thinking as anyone. (DeYoung 2000, p. 52)

If DeYoung's views generally reflect that of the majority of his fellow creationists, I believe that this explains the primary reasons they have ignored or rejected Velikovsky's theories.

The Velikovsky story remains relevant for us today for at least two reasons. First, it is important to realize that for many years, Velikovsky's pseudoscientific theories diverted the efforts of many scientists away from productive research in order to provide scientific arguments (based on empirical evidence and well-established principles of physics) in the popular press against them. Second, the Velikovsky story serves as one of the most striking case histories in modern times of the struggles scientists must sometimes make to combat pseudoscientific ideas that have managed to grab the attention and allegiance of a significant proportion of the general public. "The furor over [Velikovsky's books], and over the slightly later works of best selling authors such as Erich von Däniken, helped launch the modern skeptical movement" (Frazier 2005).

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