

A Presentation Without Arguments: Dembski Disappoints

William Dembski is a prominent advocate for Intelligent Design (ID). In his presentation to the Fourth World Skeptics Conference in Burbank, California, he avoided discussing the substance of the controversy, thus laying bare the futility of ID wherein specious rationalization substitutes for evidence.

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One prominent feature of the Fourth World Skeptics Conference in Burbank, California, in June was the invited appearance of two prominent proponents of Intelligent Design (ID), William Dembski and Paul Nelson, to give talks and to defend their views in an open dispute with two opponents of the anti-evolution movement, Wesley Elsberry and Kenneth Miller.

This not-quite-common feature was despite the fact that the conference, organized by the Committee for the Scientific Investigation of Claims of the Paranormal (CSICOP), was designed as a meeting of skeptics, whose participants are squarely on the side of genuine science and

are opponents of all disguised incarnations of creationism.

I cannot remember a single conference of creationists wherein the opponents of creationism were invited to give talks in open discussion.

The SKEPTICAL INQUIRER reported on this session in its subsequent Conference Report (September/October 2002, pp. 8–12), but here I comment more fully on and critique the presentation by Dembski.

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William Dembski

The proponents of creationism sometimes accuse their detractors of being doctrinaire adherents of antireligious bias whose motivation is not pursuing the truth but assaulting religious faith. Although this may be not the most important point, still it seems worth mentioning that both Elsberry and Miller have asserted that they are not atheists. Professor of biology Miller is a faithful Catholic, and Elsberry, while vigorously defending the theory of evolution, has also said that he

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is a “theistic evolutionist.”

Hence, both Dembski and Nelson were given a chance to argue in favor of their position using arguments of substance, based on facts rather than on ideology, in a dispute with opponents who had no reason to assault Dembski's and Nelson's religious beliefs. In this brief article I will discuss only the presentation by Dembski.

Complexity

The text of Dembski's presentation (Dembski 2002a) is available on the Internet. This text is notable by the almost complete absence of arguments relevant to the gist of the dispute between ID advocates, like himself, and the opponents of that theory. Indeed, the only instance of Dembski's touching on the substance of the dispute seems to be a paragraph where

Dembski mentions his term *specified complexity* and unequivocally defines it as a synonym for “specified improbability.” Of course, there is nothing new in that statement. Dembski has expressed his interpretation of complexity as “disguised improbability” in various forms in many of his articles and books (Dembski 1998 and 2002b). This interpretation has been criticized more than once as contrary to logic and to the accepted mathematical notion of complexity (Wein 2002, Perakh 2001 and 2002, and many others). Continuing in the same vein, Dembski repeats his often-stated thesis that what he calls “specified complexity” is a necessary indicator of design. The fallacy of that statement has been demonstrated more than once (for example, Edis 2001, Wilkins and Elsberry 2001, Perakh 2001 and 2002, Wein 2001 and 2002, Fitelson et al. 1999, Pennock 2000, Elsberry 2002, and others). Indeed, consider an example discussed several times before (Perakh 2001): Imagine a pile of pebbles found on a river shore. Usually each of them has an irregular shape, its color varying over its surface, and often its density also varying over its volume. There are no two pebbles which are identical in shape, color, and density distribution. I guess even Dembski would not argue that the irregular shape, color, and density distribution of a particular pebble resulted from intelligent design, regardless of how complex these shapes and distributions may happen to be. Each pebble formed by chance. Now, what if among the pebbles we find one that has a perfectly spherical shape, with an ideally uniform distribution of color and density? Not too many people would deny that this piece in all likelihood is a product of design. However, it is much simpler than any other pebble, if, of course, complexity is defined in a logically consistent manner rather than in Dembski's idiosyncratic way. A logically consistent definition of complexity is given, for example, in the algorithmic theory of randomness-probability-complexity (and is often referred to as Kolmogorov complexity). The Kolmogorov complexity of a perfectly spherical piece of stone is much lower than it is for any other pebble having irregular shape and non-uniform distribution of density and color. Indeed, to describe the perfectly

spherical piece one needs a very simple program (or algorithm), actually limited to just one number for the sphere's diameter, one number for density, and a brief indication of color. For a piece of irregular shape, the program necessarily must be much longer, as it requires many numbers to reproduce the complex shape and the distributions of density and of color. This is a very simple example of the fallacy of Dembski's thesis according to which design is indicated by "specified complexity." Actually, in this example (as well as in an endless number of other situations) it is *simplicity* which seems to point to design while complexity seems to indicate chance as the antecedent cause of the item's characteristics.

Ad Populum Arguments

That is about all Dembski chose to discuss in his presentation with regard to the substance of the dispute. Instead, Dembski dabbles in prophecy. His argument in favor of ID mainly boils down to references to polls which show that the majority of Americans believe in some form of creationism. This may be true. However, Dembski himself gives an example of astrology, which is probably even more popular in America than is ID, but this by no means makes astrology plausible. Dembski is not arguing in his presentation that ID will win the minds because it is true. It will win, predicts Dembski, because the American public is predisposed to believe in ID. The same may be true, though, for astrology and other fads and fallacies he himself listed as being widespread despite their contradicting scientific data.

One more argument by Dembski is that young people are inclined to take the side of innovators, and, since ID-ists are the new guys in town, the sympathy of the younger generation will be with them, thus ensuring their victory. Once again, this may be true but it has nothing to do with the merits of ID "theory." If scientific theories were accepted or rejected by a popular vote, or just by the vote of young people, quantum mechanics, the general theory of relativity, and a whole bunch of other great achievements of the human mind would never have had a chance to take their legitimate place in the progress of humankind.

Later Dembski argues that his ID theory is "not a crank theory (at least not one that is obviously so)." The sole argument Dembski offers in favor of that statement is that Paul Davies "thinks that it's onto something important," thus disagreeing with those who, like Wesley Elsberry, "think it merely codifies the argument from ignorance." This seems to be a rather weak argument, even by Dembski's standards. The reference to Davies can be interpreted in various ways and is far from endorsing ID as a real scientific theory. Moreover, so what if Davies or any other writer has indeed said something that can somehow be interpreted charitably regarding Dembski's ideas? A position whose strength can be sustained only by such ambiguous references is weak indeed and can be suspected of being crank science with a high degree of likelihood. If all Dembski can say in support of his views is that somebody thinks it has "something to it," it raises a suspicion that he has no factual evidence favoring his suppositions. To

show that certain ideas or theories indeed belong in real science rather than crank science, one has to subject those ideas to merciless tests, wherein evidence supporting these ideas can be reproduced and independently verified. Dembski and his colleagues in the ID "movement" not only did not ever produce such evidence that could be independently verified, but in fact offered no evidence at all despite having substantial financial support and a significant fighting force at their Discovery Institute of Seattle. Instead of supporting his theory by factual evidence and arguments of substance, all Dembski was able to do was to resort to a dubious reference that proves nothing and is largely irrelevant. That is the tenor of Dembski's entire presentation.

In a similar manner, Dembski plays with other quotations allegedly supporting his thesis, like a quotation from Mencken juxtaposed with a quotation from Gould, which, Dembski implies, contradict each other. The two quotations may or may not contradict each other (and actually they were relating to different situations and therefore their juxtaposition was meaningless). It is, however, always possible to mine a host of quotations on every subject and pretend that they prove something even if they are not relevant to each other in any way. Such play with mutually irrelevant quotations confirms the suspicion that Dembski has no real arguments that would be necessary in a talk to an audience not consisting of such ID adherents who would happily swallow anything seemingly confirming their already held preconceptions.

One of the main points stressed by Dembski in his presentation is the assertion that Intelligent Design, unlike such fringe pseudoscience as astrology and the like, has by now become firmly "mainstream." In this, Dembski depicts the desired as if it is real. So far, the overwhelming majority of mainstream scientists ignore ID, as can be seen by searching through the scientific literature. Practically no scientific magazine has published articles by scientists wherein a discussion of ID and related matters could be found. No references to ID can be found in the mainstream peer-reviewed scientific publications. The ID advocates either publish their productions as popular or semi-popular books and collections by nonscientific publishers or in their own periodicals mostly connected to their Discovery Institute. The only exception seems to be Dembski's monograph (Dembski 1998) published by the Cambridge University Press. Even this book, reportedly, was Dembski's doctoral dissertation in *philosophy* rather than in science. Regardless of how many times Dembski will repeat his mantra about "mainstreaming" ID, the scientific community has not and will not accept the claims by ID-ists unless and until he and his colleagues present real data supporting their contentions. So far no such data have been presented.

The overall level of Dembski's acerbic assault on skeptics can be exemplified by his comment that the letters COP in the acronym CSICOP are "not accidental." Is this so? The absence of real arguments may be sometimes replaced with attempts at being witty by using irrelevant puns. Dembski wants readers to believe that the organization of skeptics is like police trying to muzzle its opponents. Somehow he does not notice the

absurdity of such an accusation given the fact that he and Nelson are freely presenting their views at the meeting organized by the same CSICOP which allegedly is out to prevent the IDists from presenting their views.

If Dembski or any of his colleagues showed any reasonable evidence supporting their views, then, beyond doubt, scientists would be much more receptive to their theory.

Let me list some of the items that were discussed by Dembski's critics (a partial list of critical reviews of Dembski's literary production is given in my references section; this list does not include many more critical discussions of Dembski's work). To some of his critics Dembski never replied in any form. To some others he responded, for example in his latest book (Dembski 2002), with superficial and largely irrelevant arguments (as discussed by Wein 2002 and Perakh 2002), but he never really replied to the substance of a number of points listed below, which constitute essential elements of his theory.

- Dembski asserted (Dembski 1998 and 2002) that complexity is tantamount to low probability. This assertion was rebuffed by more than one of the listed critics. Dembski never replied to that critique.

- Dembski asserted that his "explanatory filter" (Dembski 1998) never produces "false positives." This assertion was rebuffed by several of the listed (as well as by some not listed) critics. Dembski never replied to them. (It can be argued, though, that in his latest book Dembski [2002] by implication conceded that false positives can be produced by his "explanatory filter" after all; he still did not admit this explicitly.)

- Dembski announced a supposedly new important law—the so-called Law of Conservation of Information (Dembski 1998 and 2002). More than one critic argued that the law in question does not exist. Dembski never replied to those critics.

- Dembski widely used a concept of what he called "specified complexity" (Dembski 1998 and 2002). More than one critic argued that the concept in question is meaningless in the sense it has been used by Dembski. The latter never replied to this critique. The same can be said about Dembski's concept of CSI—"Complex Specified Information" (Dembski 1998 and 2002).

- Dembski insists that design can be reliably inferred if low probability of an event is combined with its specification. More than one of the listed critics has argued that the specification as defined by Dembski has no reasonable interpretation. Dembski never responded to those critiques.

There are other claims by Dembski that have been subjected to critique to which Dembski has never responded while he continues to promote the same criticized concepts and assertions.

In his presentation, Dembski condescendingly suggested

a program of action for skeptics if they wish to defend their position against ID. In his uncompromising self-confidence Dembski seems not to realize that if he suggests a new, allegedly revolutionary theory, the burden of proof is on him and on his colleagues in the ID camp. It is ID-ists who need to provide evidence, any evidence, in support of their position. It is precisely the absence of evidence for the ID theory that makes skeptics (read: mainstream scientists) reject ID. If Dembski or any of his colleagues showed any reasonable evidence supporting their views, then, beyond doubt, scientists would be much more receptive to their theory. So far this has not happened. Therefore, rather than suggesting what skeptics should do to defend their views from the assault by ID, Dembski should better think of how to search for any believable proof of his own so far arbitrary and dubious assertions.

By inviting Dembski and Nelson to give talks at the Fourth World Skeptics Conference, its organizers offered Dembski a chance to reply to his critics on the matters of substance and to defend his position in front of a diversified audience, mostly not very friendly to his views. By taking the floor at the conference in question, Dembski put himself in an unenviable position of denying a simple fact obvious to all—he was complaining about skeptics suppressing his views while speaking to the same skeptics who provided him the forum.

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References

- Elsberry, Wesley R. 2002. Review of W.A. Dembski's *The Design Inference*. www.talkreason.org/articles/inference.cfm, accessed on June 22, 2002.
- Dembski, William A. 2002a. *Skepticism's Prospects for Unseating Intelligent Design*. www.iscid.org/papers/Dembski_SkepticismsProspects_062102.pdf, accessed on June 22, 2002.
- . 1998. *The Design Inference*. Cambridge, U.K.: Cambridge University Press.
- . 2002b. *No Free Lunch—Why Specified Complexity Cannot Be Purchased without Intelligence*. Lanham, Maryland: Rowman and Littlefield.
- Edis, Taner. 2001. *Darwin in Mind—'Intelligent Design' Meets Artificial Intelligence*. www.csicop.org/si/2001-03/intelligent-design.html, accessed on January 17, 2002.
- Fitelson, Branden, Christopher Stephens, and Elliott Sober. 1999. How not to detect design—critical notice: William Dembski, *The Design Inference*. *Philosophy of Science* 66: 472–488.
- Pennock, Robert T. 2000. *Tower of Babel*. Cambridge, Mass.: The MIT Press.
- Perakh, Mark. 2001. *A Consistent Inconsistency*. www.talkreason.org/articles/dembski.cfm, accessed on June 22, 2002.
- . 2002. *A Free Lunch in a Mousetrap*. www.talkreason.org/articles/dem_nfl.cfm, accessed on June 22, 2002.
- Wein, Richard. 2000. *What's Wrong with the Design Inference*. <http://website.lineone.net/~rwein/skeptic/whatswrong.htm>, accessed on November 22, 2001.
- . 2002. *Not a Free Lunch But a Box of Chocolate*. www.talkreason.org/articles/choc_nfl.cfm, accessed on June 22, 2002.
- Wilkins, John S., and Wesley R. Elsberry. 2001. The advantages of theft over toil: The Design Inference and arguing from ignorance. *Biology and Philosophy* 16: 711. □