

Howard Van Till's response (submitted 18 October, 2002) to William Dembski's remarks, "Naturalism's Argument from Invincible Ignorance," posted 6 September, 2002, on ISCID Forums.

I wish to thank Bill Dembski for his response to my essay, "E. coli at the *No Free Lunchroom*." I shall not respond to every point offered by Dembski, but will focus on those questions that are relevant to my evaluation of the ID movement's rhetorical strategy and scientific claims—the two principal foci of my attention in the original essay.

1. Is ID a scientific or a religious movement?

I did make reference in "E. coli at the *No Free Lunchroom*" to the way in which the religiously rooted goals of the ID movement may have influenced its rhetorical strategy, but I tried to avoid making arguments based on the particulars of those religious commitments or to argue in favor of any different religious perspective. The two-fold focus of the paper was on 1) the general character of the movement's rhetorical strategy, and 2) the probative force of its scientific claims. Nonetheless, in his response to my paper Dembski revealed a great deal of animosity toward what he assumes to be my religious position and assigned to it numerous labels, including "theistic evolution," "process theology," "naturalistic theism," "metaphysical naturalism," and even unqualified "naturalism."

Although I made no argument in the essay for or against the concept commonly called "theistic evolution," Dembski declares that my essay "exemplifies perfectly why theistic evolution remains intelligent design's most implacable foe." In some portions of the Christian community the term "theistic evolution" functions positively as the label for a perspective that accepts the *scientific concept* of biotic evolution (the universe is equipped with everything it needs to make its evolutionary development possible) and places it within the framework of a traditional *theological doctrine* of creation (the existence and character of the universe—including all of the formational capabilities with which it is equipped—is dependent on the effective will of a Creator). Dembski, on the other hand, sees theistic evolution as a position that is profoundly flawed by its association with "naturalism." With considerable vigor he declares that, "Not only

does theistic evolution sign off on the naturalism that pervades so much of contemporary science, but it justifies that naturalism theologically -- as if it were unworthy of God to create by any means other than an evolutionary process that carefully conceals God's tracks."

In the E. coli essay, however, I made no such argument to justify either theistic evolution (a label that I do not use for my own perspective) or any particular form of naturalism. What I did find essential was to differentiate among several forms of naturalism that differ substantially in their theological connotations, differences that Dembski explicitly chose to neglect, thereby affirming my evaluation of the way in which ID advocates categorically dismiss all forms of naturalism without due regard for the substantive differences among them.

Dembski also characterizes me as one who has become "steeped in process theology," a characterization that seems carefully crafted to alert those faithful theists who stand in "the Judeo-Christian tradition" that my theological commitments should now be held in suspicion. In the essay, however, I made no arguments based on the tenets of process theology. My one reference to process theologian David Ray Griffin was simply to note that I found his distinctions among vastly differing forms of naturalism helpful. Although I might someday wish to make more explicit my evaluation of the form of naturalism espoused by process theology and the way in which it influences the interaction between theology and the natural sciences, I did not do so anywhere in the E. coli essay. One wonders, therefore, why it was so important for Dembski to speak of "Van Till's process theology" and to offer his strident judgment that "Van Till's naturalism ...is a wet blanket designed to stifle inquiry," whereas the ID movement, on the other hand, is touted to be "an intellectual project that is fast gaining momentum and that promises shortly to displace Van Till's naturalism." For a movement that wishes to be treated as a purely scientific enterprise, intelligent design seems remarkably interested in religious commitments of its critics, assuming, perhaps, that religious commitments distort the vision of ID's critics, but not of its advocates.

2. Does intelligent design favor supernaturalism?

Dembski argues that "from the vantage point of intelligent design, treated as a scientific inquiry, neither naturalism nor theism has a privileged place." If, however, "certain features of the natural

world exhibit signs of having been designed by an intelligence,” the question regarding the identity of the “intelligence” soon surfaces. Dembski tries to argue that it need not be a supernatural deity. It could, for instance, be “ET or some telic principle immanent in nature.” The ET option is properly dismissed because of the question, Who designed ET? Furthermore, Dembski’s attempt to argue that “telic principles” are a real option strike me as hollow, given his arguments in *No Free Lunch* that the designing intelligence must be *interactive* in the course of time. How would any telic principle function interactively with the universe? Thus it seems clear that Dembski, typical of ID advocates, presumes that empirical evidence for “design” (here taken to be evidence that some biotic system X could not have formed by purely natural means) is clearly a victory for supernaturalists and a loss for naturalists of any variety.

A small matter of terminology: I cannot help but ask how something remains in the category of “a feature of the natural world” if its assembly required the form-conferring intervention of some unidentified and unembodied non-natural agent to supplement the incomplete system of natural processes. If something required the supplemental and non-natural action of an intelligent designer for its actualization, wouldn’t it then be “a feature of the non-natural, designed world”?

3. Does Dembski’s ID hypothesis posit miracles?

I had argued that the acts of intelligent design posited by Dembski seem indistinguishable from miracles. Dembski vigorously objects to the suggestion that ID entails miracles. His objection is based on the fine distinction between events that are *naturally impossible* and those that are merely *exceptionally improbable*. Dembski asserts that “miracles or supernatural interventions in the classical sense” belong in the category “counterfactual substitutions” -- occasions in which some naturally possible outcome is, by divine action, replaced by a naturally impossible one. Dembski argues that the designer’s form-conferring action that results in the formation of biotic structures like the bacterial flagellum is not, in the strict sense, a naturally impossible outcome, only an extraordinarily improbable one.

I offer two comments in response: (1) I do not for a moment believe that theologians are agreed that all divine acts traditionally taken to constitute “miracles or supernatural interventions” can be placed in Dembski’s narrowly defined category of “counterfactual substitutions.” (2) The

thrust of Dembski's appeal to the bacterial flagellum is to argue that it could not possibly have been formed by natural processes alone. He argues explicitly that the probability that the flagellum formed as the outcome of natural processes is so astoundingly low that the ID hypothesis (that the flagellum was formed in a way that required the form-conferring action of an unidentified and unembodied choice-making agent) is the only viable explanation. Consequently, for Dembski to hang his rejection of the label "miracle or supernatural intervention" for this action on the delicate distinction between "naturally impossible" and "possible but so astoundingly improbable as to conclusively preclude natural formation" strikes me as the rhetorical equivalent of attempting to hang a 300-pound painting on the wall with a tailor's pin.

4. What is the effect of more knowledge?

In my essay I used the notation "n" to designate the action of *known* natural causes that are sufficiently well understood to permit a computation of their contribution to the numerical value of the probability that X was actualized by natural means. The question at issue here is, Does an increase in our knowledge of "n" always lead to a corresponding increase in $P(X|n)$, the probability that X could have been formed by the joint action of all *known* natural causes?

My answer was a qualified "yes." Specifically, I said that "the more we learn about the self-organizational and transformational feats that can be accomplished by biotic systems, the less likely it will be that the conditions for *complexity*—as Dembski employs this term in relation to *specified complexity*—will be satisfied by any biotic system." Dembski characterizes this as nothing more than "wishful thinking" and argues that, although an increase in knowledge of "n" might lead to an increase in $P(X|n)$, it could just as well lead to *no change* in that probability or even to a *decrease* in its value.

But Dembski is simply mistaken on this point. In the spirit of Dembski's computations of $P(X|n)$, the only contributions to "n" that are allowed to contribute are those considered to be computationally "relevant," which means that there must be a causally specific account that is sufficiently detailed and complete as to allow an actual probability computation. Hypotheses that do not provide the means to compute probabilities cannot contribute to $P(X|n)$. Plausibility arguments, for example, are placed in the category of "just-so stories" that do not count toward

any substantive scientific account of natural processes that might eliminate the need for non-natural “intelligent design” action. “Science,” says Dembski, “must form its conclusions on the basis of available evidence, not on the possibility or promise of future evidence.” Consequently, the discovery of a previously unknown (but now known to be computationally relevant) formational process will necessarily add a *positive* contribution to $P(X|n)$ in place of a null contribution prior to discovery. Probability contributions, as Dembski knows well, are necessarily positive.

Two potential exceptions need to be examined: 1) Could the discovery of a new contribution to “n” lead to *no change* in $P(X|n)$? Perhaps, but then it seems to me that it would fall outside of the category of those natural processes that Dembski would consider to be “relevant” to the formation of X in the first place. That being the case, then the “no change” possibility is irrelevant to the issue at hand. 2) Could an increase in knowledge of “n” lead to a *decrease* in $P(X|n)$? Dembski thinks so, arguing that “increased knowledge of natural processes may merely drive the probabilities still lower and thus make the complexity even more extreme.” But, since all probability contributions are positive, that could be the case only if $P(X|n)$ had been *incorrectly* computed (overestimated) in the first place. The “increased knowledge” that Dembski here refers to is not drawn from the *discovery* of previously unknown processes (which is what I had in mind from the outset) but represents only the *correction* of previously mistaken notions about some process once thought to be sufficiently well understood to perform the computation of $P(X|n)$.

Given these considerations, I remain fully justified in saying that, as a general rule, Dembski’s computations of $P(X|n)$ —because they include the positive contributions of only a partial list of the natural processes that may have contributed to the natural formation of X—will generally constitute an *underestimation* of $P(X|N)$ and thereby open the door to numerous false positive indications of a need for non-natural action to accomplish the formation of some biotic system X. The whole point of that portion of my essay was simply to point out that this vulnerability to false positive indications of the need for extra-natural assembly must be candidly acknowledged by advocates of ID and that unqualified claims of having *proved* the incompleteness of natural processes and the consequent need for supplemental designer action are completely out of place. Dembski has done nothing to preclude the possibility of false positive indications.

5. Does the process of “eliminative induction” yield what Dembski needs in order to escape the charge that the ID hypothesis depends on an appeal to ignorance?

Dembski argues that his confidence in the ID explanation for the formation of some X (the bacterial flagellum, for instance) is not at all dependent on an appeal to ignorance, but stands firm on the foundation provided by the cumulative and positive process of “eliminative induction.” This term, “eliminative induction” appears to have replaced bolder references in his earlier writing to the possibility of formulating “proscriptive generalizations” that would categorically eliminate all hypotheses regarding the natural formation of some biotic system, X. In brief, Dembski’s new reasoning proceeds as follows: First, consider the set of all hypotheses so far offered to account for the actualization of X—the ID hypothesis + the set of all competing hypotheses based on “relevant” (detailed and causally specific) natural processes alone. Dembski further divides these competing hypotheses into two categories: a) those involving “direct Darwinian pathways” (pathways formed by minute incremental changes that are selected on the basis of a single function from beginning to end); and b) those involving “indirect Darwinian pathways” (pathways that include one or more changes in the function that serves as the basis for selection). Next, suppose that all known natural hypotheses are shown, singly or in categorical groups, to fail in their attempt to account fully for the natural formation of X. That would, by Dembski’s measure, constitute a successful eliminative induction that would leave the ID hypothesis as the sole remaining explanation for the formation of X.

Applied specifically to the bacterial flagellum, Dembski asserts that all naturalistic hypotheses based on direct Darwinian pathways fail because “direct Darwinian pathways can be precluded on account of the flagellum’s irreducible and minimal complexity.” Furthermore, “As for indirect Darwinian pathways, the causal adequacy of intelligence to produce such complex systems (which is simply a fact of engineering) as well as the total absence of causally specific proposals for how they might work in practice eliminates them.” So much for the set of *all* competing naturalistic hypotheses. In just two statements, all of them—both direct and indirect—are declared to be inadequate.

One could challenge the merit of numerous claims entailed by these categorical assertions, but I will here pose only two questions, which I find more than sufficient to call into question Dembski's confident declaration of having pulled off a successful and convincing "eliminative induction." First: On what basis does Dembski assert that "the causal adequacy of [an unidentified and unembodied] intelligence to produce such complex systems" is "simply a fact of engineering"? All engineers that I know are embodied agents and the complex things they produce are manufactured with the assistance of additional embodied assembling agents. Dembski's assertions regarding what an unidentified and unembodied agent is able to do is, from the *scientific* standpoint that Dembski claims to be maintaining, pure speculation at best. If this is what Dembski means by a *scientific* argument, then his concept of science differs substantially from general understanding,

Second: How could we take Dembski's references to "the absence of detailed testable models for how material mechanisms could have formed irreducibly complex molecular machines" and to "the total absence of causally specific proposals of how [indirect Darwinian pathways] might work in practice" to be anything other than appeals to ignorance? It is the *absence* of successful causally specific proposals that Dembski takes as evidence for form-conferring intervention by an unembodied designer. Furthermore, Dembski's demand for the formulation of a "causally specific" proposal for an indirect Darwinian pathway—of the sort that would satisfy Dembski's requirement for the computation of a numerical probability for its success—is more than sufficiently excessive to preclude its ever being performed to his satisfaction. One can imagine circumstances in which the strategy of "eliminative induction" might be helpful, but Dembski's attempt to employ it as a strategy to escape the charge that ID conclusions are consistently built on appeals to ignorance is a complete failure. Dembski's use of eliminative induction does not at all "establish" specified complexity. The best it can do is to hold open a small door to its *logical* possibility by calling attention to cases where causally specific accounts of the formation of X have not yet been formulated to the satisfaction of ID advocates.

Dembski implies that it was I who employed the "absence of evidence" for the particular historical pathway by which biological systems evolved as an argument "providing support for biological evolution itself." Absolute nonsense! I made no such argument. What I *did* argue for is the obvious point that the *absence* of a causally specific account (on which ID advocates place

enormously high demands for completeness) for the formational history of some X provides *no basis for ID advocates* to declare that X must, therefore, have been formed by some non-natural action. That important point stands.

6. A quick look at a couple of Dembski's of lesser complaints:

#5. "Van Till has a problem with my characterization of the bacterial flagellum as a discrete combinatorial object." Not so. Dembski here conveniently left off the essential qualification of my objection. What I actually said was, "But, of course, *no biologist has ever taken the bacterial flagellum to be a discrete combinatorial object that self-assembled in the manner described by Dembski.*" Dembski is free to call the flagellum a "discrete combinatorial object" if he wishes. But to then declare that it makes any sense whatsoever to think of it as something *that self-assembled by pure chance* is, I think, pure silliness. Feigning to compute the probability of such an "event" struck me as little more than an exercise in academic histrionics.

#8. Finally, Dembski objects that "Van Till attributes an argument to me that I never made." This particular disagreement hangs on what can be inferred from the following statement made by Dembski: "...we are now at a place where transforming a biological system that does not exhibit an instance of specified complexity (say a bacterium without a flagellum) into one that does (say a bacterium with a flagellum) cannot be accomplished by purely natural means but also requires intelligence" (*No Free Lunch* pp. 331-332). I took that to mean that a bacterium without a flagellum was not designed (in Dembski's sense), but that adding a flagellum required an act of intelligent design (form-conferring intervention). Given that interpretation, I commented that it struck me as odd that designer action would be required, not for forming the majority of the *E. coli* genome, but only for forming that small portion that coded for the formation of the flagellum.

Dembski agrees with that comment regarding "oddness," but not with my interpretation of his original statement. "Thus when Van Till asks, 'Does it not seem odd that the flagellar 2% needed supplementary designer-action while the other 98% did not?' he is certainly correct that it is odd. But the oddness here is of Van Till's own doing, attributing to me a position that I don't hold and for which I never argued."

It is apparent, therefore, that Dembski had no intention of identifying the bacterium-without-flagellum as a biotic system requiring no form-conferring designer action. He gives no argument regarding what specific portions do, or do not, require such action. Neither does he indicate what basis there is for his judgment that any designer action at all is necessary, but I must nonetheless honor his own word regarding what he intended to say in the first place. Therefore, future editions of “E. coli at the *No Free Lunchroom*” will be modified to conform to Dembski’s statement regarding his original intentions.

There is, however, an amusing irony here in Dembski’s reasoning. In effect, he is arguing that if designer action (form-conferring intervention by an unidentified and unembodied choice-making agent) is required for forming “the flagellar 2%” of the E. coli genome, then a person may reasonably infer that similar designer action was required for forming some portions of the other 98%. Dembski does not offer one iota of supportive empirical evidence for this conjecture. He does not provide even a hint regarding what other structural components of E. coli might need that supplemental designer action. As it stands, Dembski’s statement is nothing more than a grand extrapolation from one purported “instance” of designer action. How does Dembski justify this sort of unconstrained extrapolation in the face of his claim that the ID perspective is based solidly on *scientific* evidence and his injunction that, “Science must form its conclusions on the basis of available evidence, not on the possibility or promise of future evidence”? Or, does “ID science,” as exemplified by *No Free Lunch*, operate by standards that differ substantially from those of conventional science?