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Van Till and Intelligent Design



For some time, Howard Van Till has been critical of the Intelligent Design (ID) movement. Van Till claims, inter alia, that proponents of ID misuse Scripture, and that ID theory reduces to "folk science." Van Till proposes instead his Robust Formational Economy Principle (RFEP), the idea that creation has within it from the beginning the wherewithal to bring about the emergence of all biological forms and complexities which have existed, do exist, and will exist. I try to show that, while ID may end up being incorrect and something like the RFEP may be correct, Van Till's arguments against ID have not yet carried the day. I challenge Van Till's a priori approach to science and suggest that ID cannot be judged correct or incorrect prior to empirical confirmation or disconfirmation. To make the claim that the laws of nature can and have produced all of the complexity of biological organisms is a philosophical presupposition which forecloses on the possibility that an empirical analysis of the data might suggest otherwise. On this score, ID seems to employ a superior scientific method than the one employed by those advocating the RFEP. It is an empirical investigation of the data which must be allowed to either confirm or disconfirm a scientific theory, not an a priori theoretical assumption.

I challenge Van Till's a priori approach to science and suggest that Intelligent Design cannot be judged correct or incorrect prior to empirical confirmation or disconfirmation.

Howard Van Till has been critical of the Intelligent Design (ID) movement for some time. On Van Till's account, the warfare metaphor between science and religion continues because, on the one hand, naturalists assert that every formational "gap" in the history of the universe which gets closed makes the idea of God ever more otiose, while theists, on the other hand, react to the closing of these gaps by searching for further "gaps" which they contend cannot be closed. Van Till rightly holds that the warfare theme between science and religion is fought predominantly on biological turf.

The dwindling of gaps, and especially the anti-theistic taunts of the likes of Richard Dawkins and Peter Atkins that often accompanies the closing of gaps, motivates some theists to search for new gaps which, given present scientific understanding, appear to be unbridgeable by natural means alone.

Such theists often claim that the need for extra-natural explanation at the point of these gaps both vindicates theism and defeats naturalism. Van Till calls this desire to find gaps in the formational economy of the universe "episodic creationism (EC)." Episodic creationists, whether they believe the earth to be thousands of years old (young earth) or billions of years old (old earth), are those who hold that God intervened in stages during the history of the universe to bring about the fullness of creation.

As opposed to this episodic creationist perspective, Van Till proposes his own theory, the Robust Formational Economy Principle (RFEP), the idea that the universe has been "fully gifted" from the beginning to bring about all of the "emergence" within it, including all manner of biological complexity, consciousness, and human intellect. While Van Till believes that the robust formational economy of the universe requires an intelligent designer, the activity of this intelligent designer is presumed to be remote; all of the work was completed at the inception of the universe. The ID community, on other hand, allows for proximate intelligent causation, the idea that the designer may have been at work at various points in the history of the universe and not just at its inception. This makes ID a species of EC.

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Van Till believes that all species of episodic creationism, including ID, are instances of “folk science,” illegitimate and prejudiced science that, rather than seeking actual scientific truth, seeks primarily to have its own worldview assumptions confirmed; in the case of ID, the worldview assumptions which grow out of a certain reading of the Bible.

In this paper,¹ I shall attempt to show that (1) Van Till’s leveling of the charge of “folk science” against ID may reduce to *ad hominem*; (2) allegedly scientific projects motivated by EC are not, for that reason, necessarily slated to be unfruitful scientifically; and (3) Van Till’s specific criticisms of ID are, so far, less than decisive.

Intelligent Design and the Bible

As we have seen, Van Till contends that ID is just another form of episodic creationism (EC), the idea that God has created the world in stages and did not “fully gift” the world from the beginning. Whether one believes in a young earth or an old earth, if one believes that creation has taken place in discrete stages, one is an episodic creationist. Van Till seems to suggest that all forms of episodic creationism are motivated by an erroneous concept of the character of Scripture, and in particular, by a certain controversial reading of the Genesis narrative.²

Van Till, I think, is too quick in holding that *all* claims on behalf of episodic creationism *derive* from the Bible. Indeed, most IDers explicitly eschew deriving any scientific conclusions at all from Genesis or any other sacred text. For example, ID prime mover Phillip Johnson writes:

[T]he first priority for critics of scientific materialism is to state the critique of materialism and naturalism in language that the intellectual community can recognize as legitimate. In the world of the university *it is not legitimate to set up the Bible as authority against the evidence of scientific observation*, but it is very legitimate to show that people who claim to be basing their ideology on observation or neutral reasoning are actually proceeding on the basis of powerful hidden assumptions.³

Thus, the leader of the ID movement *explicitly rejects* using Scripture as a *reason* for denying Darwinian evolution in a scientific debate. As an allegedly scientific project, ID wishes to use only the same “evidence of scientific observation” which is available to the non-ID scientist. For the IDer, the debate—at least in theory—has to do with *how the scientific data themselves are best interpreted*, not with the veracity of some reading of Genesis.

Having said this, I concede that Van Till may be technically correct in his suspicion that it is a certain reading of the Genesis narrative, and perhaps other Scriptures, which may be *motivating* ID proponents to make their case. But

what, one might ask, is wrong with that? I do not find this to be problematic.⁴ Let’s imagine a philosopher who is *motivated* to find and to make rational philosophical arguments for moral objectivism and against moral relativism because he believes, on the basis of his religious commitments and religious texts, that moral objectivism is true and moral relativism is false. The basis of his motivation to argue the way he does, by itself, does nothing to diminish the *quality of the arguments themselves*. His arguments must be judged on their own merits *qua* philosophical arguments, irrespective of what might be motivating him to argue for a particular position. Similarly, we would not think it licit for an atheist to discount the beauty or quality of, say, Bach’s or Handel’s music just because it happens to be *motivated* by Christianity and Judeo-Christian texts. So we should not think that work done by an ID scientist is illicit just because it is *motivated* by religious commitments and texts. Just as Bach’s or Handel’s music must be judged *on its own merits qua music*, so *the ID scientist’s science must be judged on its own merits qua science*.

While the scientific hypothesis of the ID movement may be motivated by IDers’ understanding of, and commitment to, the Bible, that motivation does not make a scientific hypothesis any less amenable to being either confirmed or disconfirmed by the data.

Now, this is where ID can fail. But, if and when it does fail, it must be shown to be inadequate on genuine scientific grounds, and not merely judged to be inadequate *a priori* because many of its champions are motivated by their particular reading of Scripture, *viz.*, an episodic creationist reading. If, say, the text of Genesis were itself being put forward as evidence for scientific conclusions, then I think Van Till would be right to cry foul. *But that is the very thing Johnson and the majority of the ID movement consciously want to avoid doing*. So, it seems inappropriate to bring the Bible into the debate when IDers want no such thing. If we can assume that IDers are sincere, the debate for the IDer has nothing *directly* to do with the Bible. For them, it is a scientific debate which is to be settled on the basis of “the evidence of scientific observation,” and not on the basis of some reading of Genesis or any other religious text. While the scientific hypothesis of the ID movement may be *motivated* by IDers’ understanding of, and commitment to, the Bible, that motivation does not

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make a scientific hypothesis any less amenable to being either confirmed or disconfirmed by the data.

This being the case, Van Till's objection that "[w]ere it not for beliefs rooted in the reading of the Genesis creation narratives as *chronicles*, there would be no (*very* little) episodic creationism in the Christian community today" seems to miss the point.⁵ Perhaps it is true that the majority of episodic creationists are motivated to hold their views as a result of their understanding of the character of Scripture and their particular reading of the Genesis narrative, but that does not make their views *ipso facto* false or unfit to be fruitful scientifically. All sorts of beliefs and experiences have served to inspire scientific discovery and theory-formation, including dreams, warfare, the influence of spouses, indigestion, and religious beliefs. Mary Midgley writes:

[Thomas] Wright's Christian faith not only did not hamper his reasoning, but actually helped him to reach what are now accepted as sound scientific conclusions.

Midgley goes on to say:

Both Faraday and Clerk Maxwell were exceptionally devout men, active members of strongly Protestant Churches. Faraday ... did not discuss his beliefs in scientific contexts, but Maxwell made it clear that his religion had been a great help to him in forming his theories. (Would the notion of Maxwell's Demon have occurred to somebody with a different upbringing?) The forging of the modern understanding of electricity owed nothing to atheism.⁶

So, even if biblical and religious beliefs are the motivating impulses behind ID science, that does nothing to show that the science itself is incapable of being interesting or fruitful. The science has to be judged on its own merits.

In short, Van Till should avoid taking ID to task on the basis of its purported relationship to Genesis. To do so implies that science motivated by religious worldview convictions is therefore necessarily bad science. That simply does not follow logically, nor has it been the case historically.

Intelligent Design and Folk Science

Having suggested that all episodic creationists, IDers included, have been led astray by an inadequate understanding of the book of Genesis, Van Till does acknowledge:

"It is not impossible, of course, that some proponents of these [episodic creationist] movements believe that they are engaged in *open-ended* and *unbiased scientific* research."

The implication here, however, seems to be that while this remains a *logical* possibility, it is not very likely. Nonetheless, Van Till does concede that "[t]he ID movement ... eschews reference to the biblical text and asks to be considered [as and evaluated as] a purely *scientific* enterprise." However, Van Till, with genuinely admirable candor, admits:

My own candidly stated judgment, however, is that these [EC] movements are much closer to being enterprises dedicated to the task of providing empirical warrant for an episodic creationist *folk science*.⁷

For his definition of folk science, Van Till follows Jerome Ravetz. According to Ravetz, folk science is that "part of a general world-view or ideology which is given special articulation so that it may provide comfort and reassurance in the face of the crucial uncertainties of the world of experience." With respect to ID, Van Till himself defines a folk science as

a set of beliefs about the natural (creaturally) world—beliefs whose primary function is to provide reassurance that other worldview beliefs, already in place, are OK (that is, they remain credible even in the face of substantial criticism from the professional sciences).⁸

In plain language, folk science is biased science. It seeks not the truth, but to have its prejudices confirmed.

Describing an IDer as a "folk" scientist while somehow believing that another scientist who accepts Van Till's RFEP is not engaging in folk science, but in "real" science, looks suspiciously arbitrary. One might ask why should all EC science be labeled "folk" science while RFEP science passes as genuine or legitimate?

Van Till should avoid taking ID to task on the basis of its purported relationship to Genesis. To do so implies that science motivated by religious worldview convictions is therefore necessarily bad science.

Van Till's answer seems to be that it has to do with the sources and quality of warrant of the ECers' beliefs (which, remember, for Van Till includes IDers). He notes that the ECers' sources of warrant for particular beliefs include the following:

1. The received interpretation of revered text.
2. Statements by religious authority figures—pastors, church-school teachers, parents ...
3. Statements by scientific authority figures, especially by Christians trained in science who reinforce the received view.
4. Conclusions based on personal research as a trained scientist who is an active participant in a relevant professional science.⁹

Let us call 1–4 source-of-warrant set A. I can see no reason why these sources in and of themselves discredit an ID scientist. Consider that the sources of warrant for the beliefs of a non-ID scientist might be as follows:

5. The (very different) received interpretation of the (very same?) revered text.
6. Statements by nonreligious, or at least non-ID authority figures—biologists, paleontologists, secular-school teachers, parents ...
7. Statements by scientific authority figures, especially by nonreligious, or at least non-IDers, trained in science who reinforce the received view.
8. Conclusions based on personal research as a trained scientist who is an active participant in a relevant professional science.

Let us call 5–8 source-of-warrant set B. Why is source-set B somehow inherently superior to source-set A? If source-set A results in EC folk science, what makes source-set B *not* folk science? I shall say more about this later.

Apparently wishing to show that ECers are merely importing their bias into the interpretation of the data, Van Till lists "some examples of the fundamental worldview beliefs that episodic creationism might wish to see empirically warranted or reinforced." The list includes:

1. The universe needs a Creator.
2. The Creator's action should be evident to all observers (Rom. 1:20).
3. Today, the empirical natural sciences (if conducted without naturalistic "blindness") should be able to uncover forms of this evidence especially convincing to the modern mind.¹⁰

Let us call 1–3 hoped-to-be-confirmed-worldview-beliefs set A. I see no reason why hoping to have these worldview beliefs confirmed should, by itself, discredit an ID sci-

tist.¹¹ Consider that the hoped-to-be-confirmed worldview beliefs of a non- or anti-ID scientist might be as follows:

4. The universe does not need a Creator.
5. There are no observable actions of any purported Creator.
6. Today, the empirical natural sciences (if conducted without EC or ID "blindness") should be able to uncover naturalistic mechanisms especially convincing to the modern mind.

Let us call 4–6 hoped-to-be-confirmed-worldview-beliefs set B. Why should we think that set B is inherently scientifically superior to set A? Why are naturalistic hoped-for worldview assumptions "science" while EC hoped-for worldview assumptions are "folk science"? Should we really think that EC scientists are discredited because they are "motivated by worldview beliefs rooted in biblical and theological commitments" while supposing that non- or anti-EC scientists are vindicated because they are motivated by worldview beliefs rooted in secularism, materialism, or naturalism which rules out *a priori* any intelligent proximate causation? This, it seems to me, comes close to being mere bias. There is no compelling argument here to show the scientific superiority of one over the other.

Cautions Regarding the Presumed Truth of the RFEF

The reason, it would appear, that source-of-warrant set B and hoped-to-be-confirmed-worldview-beliefs set B are deemed superior to their counterparts, according to Van Till, is because this is what scientists *presume* to be the case. Van Till writes:

So what do scientists ordinarily *presume* about the universe's formational economy? ... I think we all know how nearly all professional scientists ... would answer this question. Scientific theorizing regarding the formational history of the universe ... proceeds on the *presumed* applicability of what I have come to call the robust formational economy principle. For the sake of scientific theorizing we *assume* that the formational economy of the universe is sufficiently robust to account for the actualization in time of all of the types of physical/material structures and all forms of life that have ever existed.¹²

Van Till goes on to admit that "[t]hat *presupposed* principle is almost never stated explicitly ..." Why is this assumed scientific principle "almost never stated explicitly" by scientists? "Why is it taken for granted and not repeatedly held up for reexamination?" Van Till's answer is as follows: "For essentially the same reason, I believe, that the heliocentric structure of the solar system is no longer brought up for scrutiny in the way that it was in the time of Galileo."¹³

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This is a very curious reason for Van Till to offer for the truth of the RFEP and the falsity of EC. It was in fact an *a priori* assumption that the earth was at the center of the universe which generated opposition to heliocentrism. Scientists “presumed” and “assumed” geocentrism until it became virtually incorrigible that heliocentrism was the best way to account for the data.

If it is not already obvious, I am suggesting that Van Till and others who hold methodological naturalism as an *a priori* principle parallel more closely the geocentrists than the heliocentrists. But genuine science, it seems to me, is an attempt to get a true picture of the world by means of empirical investigation; it is not a set of foregone conclusions based on nonnegotiable *a priori* assumptions and presumptions. An open and honest search for the truth about the physical world, in other words, entails that scientists remain open to the possibility that their fundamental principles, theories, and assumptions may need revision.

Having said this, Van Till would be warranted in urging that methodological naturalism in the past has been extraordinarily fruitful scientifically. But so was Newtonian physics. Just because something has been extraordinarily fruitful thus far does not entail that it is the last word. Someone operating with a truly scientific spirit must always be open to the possibility that his or her present theory, no matter how powerful and fruitful it has been thus far, may need to be revised in the future in the face of compelling evidence.

Of course, I am not advocating that scientists be open to theory revision “at the drop of a hat.” It would be unhelpful and unwise if scientists discarded powerful, accepted theories in the face of any and all evidence which seemed to contradict them. Michael Polanyi writes:

It is the normal practice of scientists to ignore evidence which appears incompatible with the accepted system of scientific knowledge, in the hope that it will eventually prove false or irrelevant. The wise neglect of such evidence prevents scientific laboratories from being plunged forever into a turmoil of incoherent and futile efforts to verify false allegations.¹⁴

So there is something to be said for presupposing, in the face of apparently contradictory evidence, that the generally accepted scientific theory is correct and will eventually explain the apparently contradictory data.

However, this necessary presumption in favor of the regnant theory must not be allowed to topple over into a dogma which, in principle, is incontrovertible, for it is always a possibility that some purported counter-evidence to a theory may actually be legitimate and genuine. If this is not recognized, major crimes against the acquisition of scientific knowledge may end up being perpetrated by scientists themselves.

At what point then should alleged counter-evidence be viewed as a *bona fide* defeater of the dominant theory? Polanyi continues: “[T]here is, unfortunately, no rule by which to avoid the risk of occasionally disregarding ... true evidence which conflicts ... with the current teachings of science.” The reason for this is because the question of precisely when it is appropriate to discard the present theory as inadequate is not itself a scientific question; it is an evaluative one. It is—as are all judgment calls of this sort—an indeterminate and unspecifiable judgment call on the part of the scientist (or scientific community). Thus, there is a very real danger that true and legitimate counter-evidence will be dismissed on account of the scientist’s commitment to reigning theories, presuppositions, and assumptions. As an example of this, Polanyi describes the initial resistance of the scientific community to the reality of meteorites. He writes:

During the eighteenth century, the French Academy of Science stubbornly denied the evidence for the fall of meteorites, which seemed massively obvious to everybody else. Their opposition to the superstitious beliefs which a popular tradition attached to such heavenly intervention blinded them to the facts in question.¹⁵

There is an important lesson germane to the topic at hand that we can learn from Polanyi’s meteorite example. He develops the example further:

Ordinary people were convinced of the fall of a meteorite when an incandescent mass struck the earth with a crash of thunder a few yards away, and they

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tended to attach supernatural significance to it. The scientific committees of the French Academy disliked this interpretation so much that they managed, during the whole of the eighteenth century, to explain the facts away to their own satisfaction.¹⁶ It was again scientific scepticism which brushed aside all the instances of hypnotic phenomena occurring in the form of miraculous cures and spellbinding, and which – even in the face of the systematic demonstrations of hypnosis by Mesmer and his successors – denied for another century after Mesmer’s first appearance the reality of hypnotic phenomena. When the medical profession ignored such palpable facts as the painless amputation of human limbs, performed before their own eyes in hundreds of successive cases, they acted in a spirit of scepticism, convinced they were defending science against imposture. We regard these acts of scepticism as unreasonable and indeed preposterous today, for we no longer consider the falling of meteorites or the practice of mesmerism to be incompatible with the scientific world view. But other doubts, which we now sustain as reasonable on the grounds of our own scientific world view, have once more only our beliefs in this view to warrant them. Some of these doubts may turn out one day to be as wanton, as bigoted and dogmatic as those of which we have now been cured.¹⁷

Although I am willing to concede that something like Van Till’s RFEP may well turn out to be correct, I do, taking Polanyi’s warning seriously, want to leave *some* room for the possibility that it might not be correct. Again, if it is appropriate to take Polanyi’s cautionary tale to be instructive, I would also encourage Van Till (and all scientists) to leave room for the possibility that it might be incorrect. It is crucial that scientists remember that their strongly held assumptions, theories, and presuppositions may, at some point, prove inadequate or incorrect and stand in need of reconsideration and revision.

So, does Van Till leave room for the possibility that his RFEP may be incorrect? Yes, but it is not clear that he leaves sufficient room; it is not clear that he takes very seriously the possibility that the RFEP could ever be shown to be false or inadequate. Concerning his judgment that it is correct he writes: “[I]t is a judgment that I have made with confidence.”¹⁸ Given that Van Till is a physicist and astronomer, the recent “anthropic” discoveries in cosmology would understandably enable him to make this judgment “with confidence” with respect to his area of specialty. What is somewhat more surprising is the ease with which Van Till extrapolates this confidence in the RFEP to biotic evolution. He declares:

I believe that this striking success in the physical sciences provides very strong encouragement for the assumption that the RFE principle would be equally warranted in theorizing about the formational history of life forms.¹⁹

My own choice strongly favors the concept of a creation optimally gifted by the Creator with a robust and gapless formational economy – yes, even robust enough to make possible the evolutionary continuity envisioned by cosmologists and biologists.²⁰

[G]iven my high expectations regarding the wealth of self-organizational and transformational gifts the Creator has given to the creation, I am not at all surprised to hear the confidence that biologists have come to have in the scientific concept of biotic evolution and the RFE principle that it presumes to be applicable.²¹

In the context of theorizing about the formational history of the universe, contemporary natural science ordinarily *presumes* that these gaps in our knowledge could, in principle, be filled at some time in the future. The scientific community *fully expects* that further research will provide the basis for more adequate and comprehensive theories regarding the formational history of the universe and the life forms that inhabit it. *One of the most basic – but seldomly explicitly stated – presuppositions* of the natural sciences, especially relevant to the formulation of theories regarding the formational history of the universe, is that the formational economy of the universe is sufficiently robust to make possible the actualization of all inanimate structures and all forms of life that have ever appeared in the course of time. I call this proposition the robust formational economy principle. In my judgment, it is ... *one of the most fundamental presuppositions of the natural sciences.*²²

Van Till has enormous assurance of the truth of the RFEP and tremendous confidence that it will be adequate to the task of accounting for all of the universe’s complex structures, including those in biology.

The extraordinary confidence expressed in these claims concerning the truth of the RFEP and the potential of the scientific community to provide an “adequate and comprehensive” explanation of the “formational history of the universe” borders on credulity. It brings to mind Mary Midgley’s comment on a not too dissimilar panegyric by Peter Atkins. She says:

It is worthwhile to remember [these kinds of remarks] when we come across the frequently held opinion that hard-headed incredulity is a central part

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of the scientific character. For scientists, as for anybody else, incredulity is bound to be selective ... Claims like these are chiefly interesting as proofs of what I have called a faith. They have, I think, very little to do with their official subject-matter—with any real question about the content and prospects of science itself.”²³

Clearly Van Till has enormous assurance of the truth of the RFEP and tremendous confidence that it will be adequate to the task of accounting for all of the universe’s complex structures, including those in biology.

But is it appropriate to display this much confidence in a theory prior to its actually being confirmed empirically? Given that scientists are supposed to be open to what empirical investigation reveals, Van Till looks dangerously poised to commit something like the “meteorite fallacy” in Polanyi’s example above. The confidence of his rhetoric indicates that for him the truth of the RFEP is virtually a foregone conclusion. This notwithstanding, Van Till does acknowledge the theoretical possibility that the RFEP may be falsified. (Indeed, if he did not, the theory would fail on the Popperian account to qualify as a *scientific* theory.) He writes:

Among the requirements that intellectual humility would impose is this one: an unqualified answer, whether yes or no [to the question as to whether the creation’s formational economy is sufficiently robust to make possible the actualization of all of the physical/material structures and all of the life forms that have ever come to be actualized in the course of the creation’s formational history], is not humanly achievable because we will never know all of the elements in the creation’s formational economy.²⁴

Some comments regarding this claim are in order. First, the assertion that “we will never know all of the elements in the creation’s formational economy,” while most likely true, is itself a philosophical assumption and not a scientific fact. This assumption itself can easily be taken as a reason for denying ontological gaps in the formational economy. It favors a yes answer to the question as to whether the universe’s formational economy is maximally robust; it suggests

that if we *did* know everything (or at least enough) the particular gap(s) in question would disappear. But this itself is an assumption which merely begs a very important question.

Second, it is hard to believe that Van Till takes seriously the possibility that the RFEP may actually turn out to be false. While giving a paper entitled “If the Creation is Equipped to Evolve, Is God a Deist?” at the 2001 annual meeting of the American Scientific Affiliation, Van Till made the comment that his belief in the RFEP was a “bet.” He claimed that he believed it more probably true than false, but not certain. However, Van Till’s attempt to mitigate his commitment to the RFEP rings hollow—unless it is a common practice of Van Till’s to label all theories that he thinks more probably false than true “folk science.” The employment of such a scorchingly derogatory term to EC betrays Van Till’s virtually absolute assurance that the RFEP is correct (true).

I think questions can and should be raised concerning the appropriateness of a scientific methodology which does not take seriously the possibility that EC could be true. Someone with Van Till’s assurance that the RFEP is correct surely is going either to miss, ignore, or attribute to ignorance whatever evidence could be adduced in favor of a proximate intelligent cause. After all, we do not, nor will we ever, “know all of the elements in the creation’s formational economy.”²⁵

Van Till’s Critique of Intelligent Design

Now let us move to Van Till’s explicit critique of ID. He lists six specific objections.²⁶ I shall treat them in order.

First, Van Till claims that ID is “unable or unwilling to give a candid and public definition of the very term that names the movement ... I cannot begin to evaluate the claim [that X was intelligently designed] until I know what you mean when you say that ‘X was intelligently designed.’” In short, Van Till is wanting IDers to give a clear and precise definition of what constitutes something being intelligently designed. This is a well-aimed objection in principle, because it is important that terms be defined as clearly

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as possible, especially when much turns on them. Van Till writes:

[T]here is an intolerable (and, I presume, intentional) ambiguity in the way in which proponents of ID use the very word that names their movement – “design.” In modern usage, design is an act of mind – the conceptualization of something for the accomplishment of a purpose. Wholly distinct from this mindful and purposeful action of design is the additional action of actualizing what was first designed – the formation of parts and/or the assembly of component parts into a system that functions to accomplish the original purpose. This action of forming/assembling is not mind-like but hand-like. In other words, forming/assembling is an act of intervention.

For years I have been asking the proponents of ID to make the necessary distinction between the mind-like action of design ... and the hand-like action of forming/assembling. That distinction must be made before anyone can begin to evaluate the standard claim that “we have positive empirical evidence that X must have been intelligently designed.” One must know whether one is evaluating evidence that something was (a) thoughtfully conceptualized, or (b) formed/assembled by non-natural means.²⁷

I think this point must be conceded to Van Till. I do not believe that the proponents of ID have offered a clear explication of the mechanism by which proximate intelligent causation is effected. But then, I wonder how forceful this objection to ID actually is. If the concern here is that ID has not (yet) given adequate theoretical explanation for how biological organisms, which have been conceptually designed, are constructed, then the first thing which must be said in defense of ID is that it is a fledgling field and cannot be expected to have every theoretical aspect of all that it entails fully worked out at this stage. It is appropriate for Van Till to raise this issue for ID proponents to consider, but to demand that a newly developing science have in hand a complete and comprehensive theoretical framework is unreasonable. IDers are sufficiently busy at present making the preliminary case that proximate intelligent causation is discernible in nature; if and when that is successfully shown, problems of construction, of which ID proponent William Dembski, for example, is aware, can be undertaken.²⁸

Furthermore, *if* the thrust of this objection is to lend credibility to the RFEP by means of suggesting that it is implausible that a nonmaterial designer could causally interact with matter, then it might be worth pointing out that Van Till himself believes that this is possible, since he is a theist and presumably believes that God (a nonmaterial substance) created the material world. Therefore, even his own position cannot escape this objection. Van Till must acknowledge that a nonmaterial substance can causally

interact with matter, because this must have taken place at least once at the initial creation of physical reality.

Van Till’s primary worry seems to be that to invoke a proximate, intelligent, hand-like cause in the assemblage of matter will carry the IDer too far from the Creator of Christian theology. That is to say, it may leave the IDer with something “uncomfortably close to Plato’s Demiurge (Artisan/Craftsman), who could do little more than to impose form on recalcitrant/incapable matter.”²⁹ But I do not find this objection convincing for at least two reasons. First, it may be logically impossible to infuse matter at the inception of the universe with the formational capabilities required to bring about, say, complex, morally aware beings such as us, who are free of will. It may be logically impossible because to bring about such beings requires *information*, and information may well be *ontologically distinct* from matter and the laws that govern matter. Information might exist with a whole different kind of being altogether. If this is the case, then it is a logical requirement that the information somehow be connected or attached to matter because the information is not itself the same thing as matter. If this is logically necessary, then this is how God would have had to have operated, since in orthodox Christian theology even God cannot do the logically impossible. It may, then, be logically necessary that information requires something like, to use Van Till’s phrase, “extra-natural assembly.”

Van Till’s primary worry seems to be that to invoke a proximate, intelligent, hand-like cause in the assemblage of matter will carry the IDer too far from the Creator of Christian theology.

Second, even if such extra-natural assembly is not necessary logically, even if matter could have been somehow “gifted” at the big bang with the potential to possess all the information necessary for beings like us eventually to come into existence, that would not *constrain* God, who is perfectly free, to do it that way. Even if it is the case that God *could* have given the universe a robust formational economy, it is also true that, being perfectly free, he may have chosen not to do so; he may have chosen to create episodically, and that not at all on account of him being a hapless, constrained Demiurge. Of course, this raises the theological question as to *why* God might have chosen to create episodically; why would God want to intervene along the way assuming that he could have done all of his creating at once at the outset? I think some possible answers might be either that it is intrinsically good that

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If we are describing the world properly, our explanations can only be as simple as the world actually is. How simple the world is cannot be determined *a priori*, however, but must be determined empirically.

God continually interacts creatively with a world he loves, or that evidence of proximate intelligent causation might induce certain attitudes within us that are good for us to have. If it is not possible to front load particular kinds of information, and/or if an answer such as the ones I have briefly suggested can be given to make intelligible God's creating episodically, then Van Till's first objection to ID has not won the day.

Van Till's second objection to ID involves his claim that the proponents of ID labor under the misapprehension that something must either be due to natural processes or ID, but they ignore the possibility that "Creation's system of 'natural' processes [may] be intelligently designed." In other words, natural processes themselves may have been intelligently designed remotely at the beginning to unfold the way they have so that there is no need for any proximate intelligent causation during this unfolding process. (This intelligently designed system of natural processes, of course, is the RFEP). Van Till objects that IDers do not take into account the possibility of the RFEP.

This objection might prompt ID advocates to clarify their conception of design. For example, it is true that Dembski's Explanatory Filter (EF) tends to leave one with the impression that design can only be inferred after chance and necessity (i.e., after chance and the laws of nature) are first ruled out as explanations. To wit, Van Till seems correct in insisting that the very laws of nature themselves are designed, that the universal and constant laws of the universe are intelligently caused. Therefore, it would seem appropriate that ID proponents make it explicit that proximate intelligent causation, the kind of intelligent causation which the EF is meant to identify, is not logically incompatible with remote intelligent causation, the kind of intelligent causation which Van Till champions with his RFEP. The IDer, in other words, need not deny *remote* intelligent causation when the evidence points to something like the RFEP, but this does not rule out the possibility that the evidence in at least some instances, such as in the Cambrian explosion of phyla or the bonding between nucleotide bases along the message-bearing spine of the DNA helix, is pointing to the conclusion that there also has been *proximate* intelligent causation along

the way. IDers should make it clear that proximate and remote intelligent causation are not logically incompatible, and that just because something is not designed in the first sense does not entail that it has not been designed in the second sense. IDers do not deny that in many instances something like the RFEP has been at work; they only assert that in some other instances the evidence suggests proximate intelligent causation as well. Thus, this second of Van Till's objections seems to be an attempt to pin IDers on the horns of a false dilemma; either all design is remote, or all design is proximate—which will it be? Nothing, however, prevents IDers from responding: "Sometimes it is the one, sometimes the other."

It is understandable that Van Till finds it uncomfortable to bring in a supplemental causal power only on some occasions. To do so is perhaps less parsimonious and elegant than to attribute all design to remote causes. However, good science is empirical. Since logic does not make the remote and proximate intelligent causation mutually exclusive of one another, an IDer could very well invoke either one or the other as is called for by the particular case in question *if* that is what the data calls for. In this way, we would be *allowing the data to determine which cases, if any, are which*, and not making an *a priori* determination on the basis of a philosophical commitment that *all* cases must be either one or the other. After all, if we are describing the world properly, our explanations can only be as simple as the world actually is. How simple the world is cannot be determined *a priori*, however, but must be determined empirically.

What we have just said connects closely with Van Till's third objection, which has to do with the Explanatory Filter (EF). Here Van Till claims that the EF does not pay adequate attention to the role of such things as "emergence" in the universe. According to Van Till, the universe has enormous "potentiality space" to throw up all sorts of curious and complex things. The EF, he holds, does not allow sufficiently for all of this potential emergence to come about by means of "emergent capabilities, contingencies, and feedback mechanisms."³⁰

Here the IDer merely has to point out that Van Till is assuming *a priori* that *all* of this

potential for emergence in the universe exists. However, it is neither logically necessary nor self-evidently true that this is the case. IDers *may* be able to make a convincing case that a complex system required proximate intelligent causation. If ID succeeds in making this case, then ID may have contributed something significant to science. If, on the other hand, ID fails to make this case, then ID itself has failed and should be relegated to the dustbin of failed scientific projects. The important point is this: the possibility that ID may be onto something should not be ruled out *a priori*. As open and liberal-minded seekers of the truth, we should give ID a chance and see what comes of it.

Fourth, Van Till worries that IDers are calling us to celebrate instances where the processes within the universe are not fully self-sufficient, instances where the universe is not, to use Van Till's phrase, "fully gifted." IDers, Van Till fears, seek out instances where the RFEP seems insufficient and then celebrate these "gaps" in the universe's formational economy.

The ID response to this is likely to be: What is wrong with that? If the gaps *really are there*, then what is wrong with acknowledging that to be the case? What IDers appear to be "celebrating," if anything, is the greatness of the mind of the being(s) who designed the complex systems which (purportedly) require proximate intelligent causation. (This, of course, would not preclude them from also celebrating those systems and entities which can be accounted for by means of remote intelligent causation.) After all, Van Till himself also wants to celebrate the activity of an intelligent designer, though he denies the need for *proximate* intelligent causation and assumes that all intelligent causation is *remote*. But there does not seem to be any good reason to think that celebrating one is inherently licit while celebrating the other is necessarily illicit.

Van Till's fifth objection to ID centers on his claim that IDers have an inconsistent attitude toward the RFEP. Sometimes they seem to celebrate a gapless formational economy, as in cosmological fine-tuning; at other times, they seem to emphasize gaps, as in certain biochemical complexities and the complexities of DNA. Van Till seems to want to ask IDers, "Which is it: a remote intelligent cause or a proximate intelligent cause?"

This issue already has been addressed under the third objection. Suffice it to say here that the IDer can be claiming to be humble and open before the data, *allowing them* to determine which explanation best fits them. In the case of cosmological fine-tuning, IDers seem to believe that something more akin to the RFEP (remote intelligent causation) seems to be true (accurate, correct, most plausible). In the case of microbiology and DNA, however, they seem to believe that proximate intelligent causation is the best (most probably correct, most plausible, most accurate) explanation.³¹ What the IDer will reject here is Van Till's insistence that *all* of the data be classified as either all one

or the other. The IDer will allow the data to speak for themselves without being forced to fit into one or the other preordained category.³²

Finally, Van Till accuses ID of being equivalent to what he calls "punctuated naturalism." Punctuated naturalism involves the notion that IDers often characterize natural processes as "'undirected,' 'purposeless,' 'materialistic,' 'naturalistic,' and the like" while at the same time allowing that "whatever is done by atoms, molecules, etc., is effectively conceded to naturalism." As a result, IDers, because they fail to recognize that "an atheistic worldview" cannot "account for any of the universe's formational or operational capabilities," falsely conclude that "the universe's naturalistic formation must [therefore] be punctuated by occasional episodes of 'ID.'"³³

For Van Till, all design has been front-loaded into Creation's system of "natural" processes. Consequently, there is no reason to look for evidence of proximate intelligent causation in nature.

This objection to ID cannot possibly be right. If ID proponents really did believe that "whatever is done by atoms, molecules, etc." is "undirected" or "purposeless," then Van Till could not possibly have accused them in his previous objection of having an inconsistent attitude toward the RFEP. Recall that Van Till's fifth objection was to point out that IDers sometimes invoke something like the RFEP and then, at other times, invoke proximate intelligent causation. But how could IDers ever invoke anything akin to the RFEP (remote intelligent causation), such as Van Till himself acknowledges they do when appropriating cosmological fine-tuning arguments, if they really were "punctuated naturalists" who thought that "whatever is done by atoms, molecules, etc." is "undirected" and "purposeless"? Clearly, then, IDers are not "punctuated naturalists."

Conclusion

Van Till's critique of ID is so far less than fully persuasive. Although Van Till would agree with proponents of ID that God is the Creator and Sustainer of the cosmos and that philosophical materialism or naturalism is thereby false, he contends against ID that theists (in particular, the Christian community) should lay claim to the RFEP *as the sole locus* of evidence for the activity of a designer. For Van Till, all design has been front-loaded into Creation's system of "natural" processes. Consequently, there is no

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reason to look for evidence of proximate intelligent causation in nature. However, it is not clear that adopting an *a priori* methodological principle that makes proximate intelligent causation virtually impossible is the best way for science to proceed (perhaps especially when being conducted by theists). Whether or not Creation has been adequately "gifted" at its inception³⁴ to actualize all of the complex systems which it encompasses is not a question that can ever be settled definitively, and therefore the possibility of proximate intelligent causation should not be ruled out in principle at the outset. While Van Till is correct to emphasize that Creation's formational economy, especially in the realm of cosmological fine-tuning, is evidence of design and should be embraced by design advocates (as we have seen that it is), he inappropriately forecloses on the possibility that there may be empirical warrant for proximate intelligent causation as well. ID may be incorrect, and something like the RFEP may end up being correct, but it seems to me that we cannot be confident of this until we have given ID a fair chance to make its case.³⁵ ★

Notes

¹An earlier version of this paper was read at the 2001 Annual Meeting of the American Scientific Affiliation in Manhattan, Kansas. I wish to thank the participants of that conference for their helpful feedback and comments. I especially wish to thank Howard Van Till for the friendly comments and helpful suggestions he offered to me at that meeting.

²This point was made in his lecture, "Biblical Creation Narratives, Folk Science, & Natural Theology," at the Oxford/Templeton Seminar Series on Science and Religion at Oxford University on 1 August 2000. Here Van Till claimed: first, that ECers fail to distinguish conceptually between the idea that the Bible has been inspired by God and the assertion that it was written by God; second, that ECers neglect the influence of the Bible's historical and cultural context; third, that they treat inspiration as a shortcut to bits of information known to God alone, and, finally, that they idolize the Bible as a collection of inerrant statements which are held to be beyond human critique.

A number of quotations in this paper are taken from the overheads used in Van Till's "Biblical Creation Narratives" lecture. It should be understood, however, that content from a lecture is often meant to be stimulating and provocative, and it does not, therefore, necessarily represent the author's final, considered position on a given matter in the same way that a formal, polished, published piece of work does. Consequently, I do not view the lecture material as reflecting Van Till's last word on the matter, but merely as a sketch of interesting and

provocative publicly presented ideas with which it might prove fruitful to interact. I engage with Van Till's lecture ideas in that spirit, and it is in that same spirit that I make my replies.

³Phillip Johnson, "The Wedge," *Touchstone* (July/August 1999): 23. Emphasis mine. It is true that when talking with Christians who share his assumptions, Johnson seems to believe that unbiased science will confirm his EC reading of the Bible. But Johnson nonetheless is aware that this *a priori* assumption must be confirmed by scientific observation and must not itself be put forward as evidence in a *scientific* debate.

⁴Van Till himself grants that "[r]eligious commitments frequently serve as a stimulus for a scientist to select and carry out a particular program of research" in "The Character of Contemporary Natural Science" in *Portraits of Creation*, ed. Howard Van Till, et al. (Grand Rapids: Eerdmans, 1990), 148.

⁵Quotation from the overheads of "Biblical Creation Narratives." Emphases Van Till's.

⁶Mary Midgley, *Science as Salvation* (New York: Routledge, 1992), 167. For further testimonies of instances where Christian faith has been influential in assisting scientific discoveries, see John Hedley Brooke, *Science and Religion* (Cambridge: Cambridge University Press, 1991), chaps. 1 and 6; and Del Ratzsch, *Nature, Design and Science* (Albany, NY: State University of NY Press, 2001), esp. pp. 139-40.

⁷VanTill, "Biblical Creation Narratives," emphases his.

⁸Ibid.

⁹Ibid.

¹⁰Ibid.

¹¹Van Till would like to see (1) confirmed. That is the point of his RFEP.

¹²Howard Van Till, "Partnership: Science & Christian Theology As Partners" in *Science and Christianity: Four Views*, ed. Richard F. Carlson (Downers Grove: InterVarsity, 2000), 216 (emphasis mine).

¹³Ibid.

¹⁴Michael Polanyi, *Personal Knowledge* (Chicago: University of Chicago Press, 1958), 138.

¹⁵Ibid.

¹⁶F. Paneth writes: "Scientists in other countries were anxious not to be considered as backward compared with their famous colleagues in Paris," which explains why "many public museums threw away whatever they possessed of these precious meteorites: it happened in Germany, Denmark, Switzerland, Italy and Austria" in "Science and Miracles" in *Durham University Journal* 10 (1948-9): 9, quoted by Polanyi, *Personal Knowledge*, 138, n. 2.

¹⁷Polanyi, *Personal Knowledge*, 274-5.

¹⁸Carlson, *Science and Christianity*, 233.

¹⁹Ibid., p. 232.

²⁰Howard Van Till, "Creation: Intelligently Designed or Optimally Gifted" in *Theology Today* (1998): 364 (emphases mine).

²¹Carlson, *Science and Christianity*, 233.

²²Van Till, "Creation: Intelligently Designed or Optimally Gifted," 351 (emphases mine).

²³Midgley, *Science as Salvation*, 89-90.

²⁴Carlson, *Science and Christianity*, 231.

²⁵Van Till frequently appeals to present ignorance as a way of maintaining assurance that, in the face of current gaps, the RFEP will eventually be vindicated with further knowledge and so therefore there is no need to invoke a proximate intelligent

cause to "close" the gaps. The language he uses to express this is in terms of "epistemological gaps" not (necessarily) entailing "ontological gaps" (see Van Till, "The Creation: Intelligently Designed or Optimally Equipped," 356-7 and —, "Partnership: Science and Christian Theology as Partners in Theorizing," 231 *et passim*.) However, I have been told by ID proponents that this is a misunderstanding of, and misuse of, the design inference. The point of the design inference, when used correctly, is supposed to be that it makes the best sense of the data, of what we know; it is not meant to be a default position which is to be taken in the absence of knowledge. Just as in a murder trial a jury convicts someone on the basis of the evidence, so one infers design on the basis of the evidence. The jury does not reach its verdict on account of what it does not know, but on account of what it does know, on account of the evidence. Whether or not this is a distinction without a difference, I am not certain.

²⁶These are taken directly from the overheads of the "Biblical Creation Narratives" lecture.

²⁷Howard Van Till, "Robust Formational Possibilities," <http://listserv.omni-list.com>.

²⁸William Dembski, "Intelligent Design Coming Clean," <http://listserv.omni-list.com>.

²⁹Quotation from the overheads of "Biblical Creation Narratives."

³⁰Ibid.

³¹Stephen C. Meyer, for example, argues exactly this in "A Qualified Agreement Response" in Carlson, *Science and Christianity*.

³²Van Till complains:

Here then is the puzzling ambivalence. In his reflections on the cosmological fine-tuning of the universe, Meyer's conclusion of the need for ID is based on an appeal to the remarkable features (special values of cosmological parameters) that the universe *does* exhibit ... Meyer argues, in essence, that if the RFE principle is *true*, then ID is also true. But in his reflection on the character of *biological* structures, the argument seems based on an appeal to certain features (specified formational capabilities) that the universe *does not* exhibit. In essence (sic) Meyer appeals to biological examples to argue that if the RFE principle is *false*, then ID must be true. Putting these two arguments side by side, it looks like the old trick line "heads I win, tails you lose" ("A Partnership Response" in Carlson, *Science and Christianity*, 194, emphasizes his).

Interestingly, this argument can be turned on Van Till. Jean Pond does exactly this when she writes:

I think there are problems with Christian ownership of the RFE principle. Are we saying that (1) if the RFE principle is true, theists win, and (2) if the RFE principle is not true ..., the naturalists win? The latter doesn't work, since the requirement for periodic supernatural interventions negates naturalism. So we are faced with claiming that theists win either way, which hardly seems sporting.

I can imagine a proponent of naturalism raising his or her hand and saying, "Excuse me? Are you saying that (1) if we can't explain how the vertebrate eye evolved, that is evidence for God, and (2) if we *can* explain how the vertebrate eye evolved, that is even better evidence for God? Is there *any* evidence that you would accept as arguing against the existence of God?" ("An Independence Response" in Carlson, *Science and Christianity*, 244, emphasizes hers).

³³From Van Till, "Biblical Creation Narratives."

³⁴It is important to remember that all agree that creation has been "fully gifted." The disagreement turns on *when* the gifting takes place. Van Till claims that all the gifts were given at the beginning; IDers claim that some gifts were given along the way. But no one in the discussion denies that God has fully gifted the universe.

³⁵While the RFE presumes that there are no gaps in the universes formational economy, those who champion proximate intelligent causation might be supposed to presume that there are such gaps.

Neither of these presumptions, however, should be dogmatically held *a priori*. Whether or not there are gaps in the creation's formational economy is an open question, and it can only be settled by empirical investigation.



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