

# Science or Sience<sup>1</sup>: The Question of Intelligent Design Theory

Jeff Mino



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*Intelligent Design Theory (ID) has been much maligned recently as Neo-Creationist pseudo-science. This paper looks briefly at the common arguments used against ID, including arguments from methodological naturalism (MN), falsifiability, productivity, and religious fundamentalism. Ultimately it goes on to explain why the theory could be beneficial to our society today and suggests a need for a methodology of studying nature that exists alongside traditional science yet is not based on the precept of MN.*

**S**ince the Enlightenment, many would contend that science and theology are incompatible. Some argue that one must accept either one or the other, while others argue that both may be accepted because they cannot contradict. Science explores the physical, while religion explores the metaphysical.

It seems to me that whether one chooses to exclude either, or claims a separation between them exists, something is lost either way. Ultimately, while science and religion may separately answer contextual-awareness questions of who, where, why, when, and how, both overlap in the answer to the question of *what*. What is existence and creation? In recent years, a hypothesis on the origins of the universe, life, and species has arisen that has challenged the common wisdom that science and the supernatural are incompatible. This hypothesis is Intelligent Design (ID).

As one might imagine, however, this hypothesis leaves a bitter taste in the mouths of some on either side of the argument. Many scientists chafe at the idea of ID, claiming it removes the necessary filter of methodological naturalism (MN) from the

pursuit of their profession. Likewise, some theologians balk for a number of reasons, including that ID sets up a god-of-the-gaps mentality, and our faith should be based on more than what we can observe, or that the imperfection of organisms is contrary to the scripturally attributed nature of God.<sup>2</sup> However, I believe such concerns, while valid, can be overcome, and a conscientious methodology of ID incorporated into the realm of scientific and theological acceptability.

## Intelligent Design Criteria

The question remains, however, what exactly does the concept of ID look like and how does it affect our practice? Essentially, ID is a critique on Darwin's theory of evolution, claiming that the latter is insufficient to account for the data found in nature. In naturalistic science, only two explanations are accepted: either natural law (i.e., natural selection, genetic drift, etc.) or chance. ID suggests a third criterion: design. ID posits that evidence in nature implies its creation by more than the gradual process of random chance. Proposed by William Dembski, a philosopher and mathematician, it is based on the laws of probability, with its three main criteria being contingency, complexity, and specification.

Contingency simply means that there is choice in the ordering of a string of information, be it words in a sentence or nucleotides

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in DNA. If 3 is required to follow 2, and 2 is required to follow 1, then contingency does not exist. In other words, systems must exhibit contingency as opposed to necessity.

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Complexity states that while simple strings can be formed by chance, complex ones cannot. If one were to cut up a name into its individual letters, put them in a bag and pull them out at random, given a sufficient amount of time one would almost certainly form the title by chance. However, if this entire paper were broken up into its constituent letters and the same attempted, the probability of randomly achieving such a goal would be astronomical to say the least. It would quite nearly take an eternity to accomplish. Dembski defines complexity as a string with a probability of  $10^{-150}$  or essentially 500 bits of information.

Of course, even Dembski concedes that low probability does not rule out chance. The probability of a person winning the lottery is often one in millions. However, one should not therefore assume that if a person wins, cheating was involved. Similarly, if one were to lay out the fifty-two cards in a deck, whatever pattern was presented would be equally as unlikely as any other (specifically  $8.06 \times 10^{-67}$ ), even the one where all cards are arranged numerically. Thus critics of ID often argue that the existence of life, however unlikely, can still be attributed to chance, besides which, the current configuration of life and the universe in general is no more unlikely than any other. Ultimately, chance cannot be ruled out. Of course, those familiar with statistical analysis realize the problem with this statement, and this is where the third filter of specification comes in.

Specification means there is a prior, specified pattern of intelligence detectable in a system. Here is an illustration.

If an archer shoots arrows into a wall and we then paint bull's-eyes around them, we impose a pattern after the fact. Thus there is no complexity. On the

other hand, if the targets are set up in advance ("specified") and then the archer hits them accurately, we know it was by design.<sup>3</sup>

By adding a requirement of specification on beforehand, saying that the order of a system must follow a precise, defined pattern essentially multiplies the probability of all orders against the probability of a specific, predetermined order such that it is *exceedingly* more likely to get any other order except the specified one. In fact, the probability is so unlikely that its occurrence essentially cannot be due to natural law or chance. Therefore, if information is contingent, complex, and specified, then intelligent design is evident.

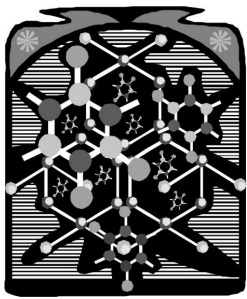
### Irreducible Complexity

The clearest alleged example of Dembski's "specified complexity" in biological systems is what has become known as irreducible complexity. Michael Behe defines irreducible complexity as "an integrated multipart functional system where removing any of its parts destroys the system's function."<sup>4</sup> There are three naturalistic possibilities as to how such a system could form. First, perhaps all parts of the system evolved through direct evolutionary processes. However, since all parts of an irreducibly complex system would have no function on their own, natural selection would not select for them. Thus, direct evolutionary processes are ruled out. As design proponents would say:

It's logically possible that with my very limited chess ability I might defeat the reigning world champion in ten straight games. But if I do so, it will be despite my limited chess ability and not because of it. Likewise, if the Darwinian mechanism is the means by which a direct Darwinian pathway leads to an irreducibly complex biochemical system, then it is despite the intrinsic properties or capacities of the mechanism.<sup>5</sup>

Design proponents are not saying it is utterly impossible that systems could form from a direct Darwinian process. They are simply saying it is vastly improbable.

Secondly, perhaps all of the parts developed together at the same time. Of course, the chances of the entire system forming spontaneously are so exceedingly unlikely as to rule this out immediately as well. Skeptics of ID admit the logic of design proponents up to this point.<sup>6</sup> However, they point to the third naturalistic mechanism: indirect evolution. This is the notion that parts of an irreducibly complex system originally had other purposes but were modified and used by the newly forming system. Theoretically, these subsystems would have "served some other function (a function that could conceivably be subject to selection pressure)."<sup>7</sup> This is known as co-optation. Essentially, naturalists get around irreducible complexity by hypothesizing that all parts of an irreducibly complex



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system originally had functions of their own or were useful in other systems, but they were eventually co-opted into the irreducibly complex system and have now lost their original function. A similar possibility is that these systems were originally parts of larger systems that evolution whittled away until they became irreducibly complex. However, to date:

[N]o indirect Darwinian pathways are known. At best, biologists have been able to isolate subsystems of such systems that perform other functions. But any reasonably complicated machine always includes subsystems that perform functions distinct from the original machine.<sup>8</sup>

If we could observe modern examples of such phenomena occurring, this would allow us to believe credibly that though we have no evidence of past co-optation, we have present experience which sheds light on such a mystery. Unfortunately, not only do we have no detailed and *testable* hypothesis of how subsystems undergoing coevolution could form into an irreducibly complex system, but we have no experience of such occurrences nowadays to support it. Essentially then, the naturalistic argument against irreducibly complex systems is an untestable hypothesis.

Critics such as Richard Dawkins, Robert Pennock, and others scream that this is an argument from ignorance, since just because we have no detailed and testable hypotheses of co-optation does not mean it could not have happened.<sup>9</sup> Of course, one could just as easily claim that denial of a creator is also an argument from ignorance, and then it becomes a matter of discerning which is more probable. Personally, I feel it takes more faith to believe that we sprang from the head of natural law and chance than to believe that a creator formed us with a purpose.

### Arguments against Intelligent Design Methodological Naturalism

Unfortunately, the general scientific establishment often does not feel the need to drive the argument to such a point. For many, Darwinian evolution is the only game in town by default. As Massimo Pigliucci notes in *Denying Evolution*:

Even if evolutionary theory as currently accepted is wrong in some fundamental way (and it is hard to see how this could be), the victory does not go to intelligent design creationism, because it clearly fails to provide a better explanation of nature.<sup>10</sup>

How can Pigliucci say this with such certainty without presenting empirical data to support such a claim? His reasoning bypasses such debate and instead is due to a semantical sleight of hand. To put it succinctly, the scientific community has ruled ID as being outside the bounds of science simply by definition, leaving Darwinian evolution as a theory with no contenders.

Science as it exists today does not look for the possibility of "God" working through natural causes, due to the premise of MN. To be fair, MN does not claim there is no God. Rather, the narrower construal posits that

scientific accounts must refer to wholly natural phenomena, making no reference to immediate or direct contribution by nonnatural or supernatural agency, while permitting further, nonscientific appeal to the divine as the ultimate and sustaining source, meaning, and purpose of all natural phenomena.<sup>11</sup>

In short, MN does not ask one to believe that there is no God, but rather asserts that one may not claim God to be the direct cause of an effect when one studies said effect in the name of science.

At first glance, this is a valuable and necessary restriction. One would shudder to think of where we would be today if at the first sign of befuddlement, scientists threw up their hands and said, "This must be God's doing," and then went on to study something else. MN gives us the impetus to understand natural phenomena in natural terms. One may contend that science should not be so narrowly defined, but to my mind this betrays an underlying belief in scientism in the minds of the opponents, the notion that all truth is scientific truth, and that the only worthy endeavor is the one that seeks out the reduction of a phenomenon to quantifiable data. Yet as O'Connor states:

There are, of course, many ways to understand a phenomenon, including



such concerns as its aesthetic value, moral significance, economic impact, and divine purpose. From among these disparate explanatory interests, we pick out natural science as that activity specifically concerned with perceiving the phenomenon as a functional constituent of the natural created order.<sup>12</sup>

In other words, those who argue against MN do so with the unsaid implication that science is the only absolute truth. Only if MN is coupled with a philosophy of scientism does it become dangerous.

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These are valid arguments for the need for MN. In fact, if one accepts the quite reasonable limitation of science given here, MN is crucial by definition. However, the issue here becomes one of limited resources. Any Christian would have to assert that the goal of this definition of science is unattainable. After all, if everything can be explained away by natural causes, then this is directly contrary to the claims of Scripture, and belief in God becomes merely wishful thinking. This is not to say, however, that the practice of natural science is therefore futile. After all, "If the exact extent of our ability to provide natural explanations remains unknown, conceding too much too soon may serve to cut short a venture which holds forth the prospect of considerable conceptual gains."<sup>13</sup> At the same time, however, excluding divine causal explanations may stifle accounts which would rival the natural alternatives in gains and merit.

This is an argument not solely against MN but the goal of science itself. Even if science is to be defined such that MN is necessary by definition, one nevertheless cannot rule out inclusivity on the grounds that it is unproductive until one has at least attempted to investigate this claim,

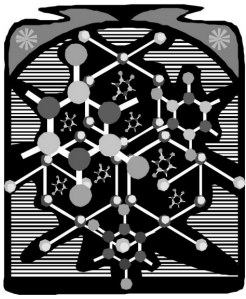
which MN rules out a priori. As ID advocate Stephen Meyer states: "What we want to know is not whether a theory is scientific but whether a theory is true or false, well confirmed or not, worthy of our belief or not."<sup>14</sup>

Whether scientists will allow that ID is scientific should not be at issue here. The issue is whether or not it is productive. After all, numerous theories that have become accepted standards of the scientific paradigm were originally judged as reactionary and outside the bounds of science, including Einstein's theory of invariance, not to mention Darwin's theory of evolution itself. Views of science judged to be unacceptable to the established paradigm have repeatedly shown their productivity under the right circumstances or right minds, surpassing even the "legitimate science" of the day.<sup>15</sup> If one refuses to call ID "science," well and good. Call it "sience" instead if one pleases.<sup>16</sup> Include under this term the study of reality and its causes by any means, natural or designed, remove the metaphysical rejection of the super- or extranatural, and let the evidence lead one toward the mutually exclusive and categorically exhaustive options of naturalistic evolution or ID. Whether or not one claims such an endeavor falls under the narrower definition of "science," it is still worth studying, and in fact may be just as important as studying naturalistic science alone.

### Falsifiability

Beyond the contention of indirect evolution or ruling out ID by fiat, other arguments against this hypothesis are employed as well. One is the notion of falsifiability. Proposed by Karl Popper (1902-1994), it has until recently been one of the foundations of science. Essentially, this premise states that what makes a claim scientific is not that one can verify it, but rather that it has the capacity to be proven false. By this logic, ID cannot be proven false because the intelligence exists outside of the realm of science. If we want to find God in the molecular machines, then even if they were explained through naturalistic means, we could still claim God had a hand in it nonetheless. In reality, however, the concept of ID *is* falsifiable. If irreducibly complex systems could conclusively be shown to occur through naturalistic means, such that their perceived specified complexity is merely an illusion, then ID would have to concede on the premise of Occam's Razor. In other words, ID would be rendered superfluous.

Of course, naturalists claim that they should not have the burden of proof in this matter. After all, naturalists would be required to refute every single instance of supposed irreducible complexity in order to falsify ID, and the nature of evolutionary studies means that the evidence for it ceased to exist millions of years ago. Just because that evidence no longer exists doesn't mean intelligence must be the answer. Of course, this amounts to saying that ID is only unfalsifiable to the extent that naturalism



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is unprovable. One would hardly consider this a victory for Darwinists.

Turning the tables on naturalists, however, ID proponents counter-argue that Darwinism fares no better than ID by the standard of falsifiability. As skeptic David Depew has admitted: "Darwinism does not relate to the facts it is supposed to explain in the same way that Newton's or Einstein's paradigmatic scientific theories do."<sup>17</sup> While physicists may have metaphysical beliefs based on their data, nevertheless "what makes them professional physicists is their ability to wield the mathematical formalism of quantum mechanics and use it to interpret data."<sup>18</sup>

On the other hand, what makes a scientist a Darwinian is metaphysical materialism, not a concrete data theory. To get from the origin of life to the myriad species today requires more untestable assumptions than actual empirical data. Dembski writes that while

Darwinists describe, in highly abstract and schematic terms, supposedly possible Darwinian pathways that might bring about the features of living systems, no Darwinist has offered a hypothetical Darwinian production of any tightly integrated multipart system with enough detail to make the hypothesis testable even in principle.<sup>19</sup>

Thus, Darwinism is not as scientific a theory as those of other disciplines but rather more of a metaphysical research program, and is as unscientific as ID, at least according to the requirement that many use to discredit the latter. Falsifiability, therefore, is not an acceptable criterion with which to reject either ID or Darwinism. As Thomas Kuhn points out:

To wield the falsificationist ax too early means the premature extinction of research programs that, if the past is any guide to the future, might well go on to prove their worth.<sup>20</sup>

Yet this is exactly what Darwinists feel is called for with ID.

### Productivity

Darwinists argue that the criterion of productivity is a good rationale for accepting a metaphysical research program. Darwinism is accepted not because it has been confirmed or escaped falsification, Depew argues:

but because it is a research tradition that has, up to the present, had a pretty good run. Creationism, by contrast, has been rather unfortunate in its lack of fecundity in the past century or so.<sup>21</sup>

Small wonder, however, considering it has been ruled out a priori as a scientific practice for that past century. While there may be nothing wrong with using this criterion as a valid reason for dismissal of a hypothesis, if productivity is the filter a theory must pass through, then by necessity ID must at least have the opportunity to pass through it in the first place. In a sense then, productivity is a reason ID *should* be delved into. To exclude ID because it fails to produce results as a consequence of its having been defined as being incapable of producing results is not only circular reasoning, but profoundly unscientific.

### Religious Overtones

The previous quote also yields an insight into another misconception, namely that ID is simply Neo-Creationism in disguise. While it is easy to see how the former could amount to the latter, there is a subtle difference between the two. Although a creator is the logical conclusion of ID, ID is not at its core a religious assumption. Rather, it is a scientific methodology which seeks to detect "specified information." As to the cause of this information, all ID is willing to say is that the design exhibits intelligence necessary in its creation. What form this intelligence takes is outside the bounds of ID. Perhaps it is the Christian Yahweh or perhaps space aliens. ID does not concern itself with such issues because it cannot verify them. Thus, ID proponents would point out that the argument that ID can always appeal to God regardless of material evidence has nothing to do with ID and everything to do with religion, which, despite what skeptics claim, ID is not primarily interested in.

The response at this point is usually that while in its strictest sense, ID is not a Christian Neo-Creationist assertion, in practice, it is, as its supporters have ulterior motives, namely the overthrow of naturalistic science for theistic science. Their ultimate goal is the introduction of religious teaching into the school systems.<sup>22</sup> Thus, ID is not truly scientific. By coupling ID with Neo-Creationism, Darwinian evolution proponents can claim

that “people are trying to put up religion ... as a rival to science ... and it is not necessary.”<sup>23</sup> There is a significant problem in this line of reasoning, namely, that it is not specifically relevant to the present argument. Once again, the issue should not be one of science versus religion, but rather the judging of ID on its own merits.

Besides, knowledge does not exist inside a vacuum. All beliefs and their pursuits incorporate more than the idealistic quest for pure knowledge. Many Darwinian evolutionists pursue a naturalistic explanation of the origins of the species not simply because the evidence is so overwhelming, but because it fits their pre-existing metaphysical paradigm. One need only read any work of Richard Dawkins to understand the contempt he holds for any position outside the natural. Such disdain—nearly on par with religious fanaticism in its vehemence—does not come from pursuit of a neutral and objective scientific method. Rather, it comes from a prior commitment to a belief outside the bounds of science. Should we then reject naturalistic evolution because of the nonscientific beliefs of its proponents? Not at all, and no more than we should reject the notion of ID for the same reason. What is at issue here is whether the data supports the beliefs, and whether the investigations are carried out in an intellectually open and honest manner. Again, it would be a mistake to judge a hypothesis on the religious beliefs of its adherents rather than on its ability to explain the data itself.

### Potential Benefits of ID Methodology

This then is the fundamental reason for supporting ID: it is plausible yet untested. If it gives us no additional insight than naturalistic evolution, then while this would not strictly falsify ID, it would be rendered unnecessary. However, one of the biggest questions asked today is how ID brings anything to the table. While the theory of evolution has led us to amazing discoveries in terms of what was and is possible, ID is a much more negative proposition, instead stating what could not have happened. How then, do such claims further the pursuit of science?

At the very least, ID can act as a check against the sometimes far-reaching assumptions of the naturalistic evolutionist. On a more substantial level, however, theoretically the assumption of the involvement of a creator should push us in new directions in terms of scientific research and inquiry. Here, then, are a few possibilities. The first is the development of techniques for detecting design. Another possibility involves evolvability. As Dembski states:

Evolutionary biology’s preferred research strategy consists in taking distinct biological systems and trying to merge them. ID, by contrast, focuses on a different strategy, namely, taking individual biological systems and perturbing them to see how much the systems can evolve.<sup>24</sup>

To restate this in an admittedly overly-simplistic way, Darwinists attempt to look back toward what could be, while ID theorists look back toward what could not be.

Another avenue of research spawned by ID is to replace MN with the principle of methodological engineering. According to this principle, biological systems should be understood as engineering systems. Thus, everything from their origin and construction to their operation should be seen in engineering terms rather than invoking a connection of dots without detailing how they got from A to B. After all, evolution is committed to continuity. “But for dots to be plausibly connected,” Dembski argues, “they need to be reasonably close together.”<sup>25</sup> That is why the gaps in the fossil record and lack of evidence of “missing links” are such a problem. To be fair, one should not expect to find anything close to a complete fossil record simply due to the extremely narrow conditions required for fossilization to occur. Nevertheless, coupling these gaps with the issues of complexity and lack of conclusive evidence for a naturalistic genesis, ID questions whether or not these intermediates ever existed in the first place. As such, it might be more fruitful to expend resources discovering the history of modification without attempting to find transitional forms.

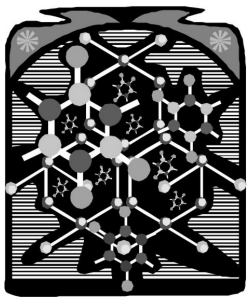
The last potential avenue of research that may be relevant is what Dembski essentially describes as cryptography. If intelligence was involved in the designs of species, then it is possible that “organisms instantiate designs that have no functional significance but that nonetheless give biological investigators insight into functional aspects of organisms.”<sup>26</sup> Also, naturalistic evolutionists expect to find little of worth in what is known as “junk” DNA. ID proponents, however, posit that this DNA may not be as worthless as it seems. Dembski mentions that while this is, of course, hypothetical, early results from bioinformatics may suggest such a possibility.

### Intelligent Design in Schools Religion and Ideology

Unfortunately, the coupling of ID with religious fundamentalism in the public eye has been fairly successful up to this point, such that the teaching of it is often outlawed in public schools, due to the separation of church and state. In the same way that MN rules out design, claiming ID is Neo-Creationism rules out its acceptability a priori. However, Darwinism fares little better in the separation of church and state, as will be discussed later. And while it may not specifically espouse Christianity, ID certainly points us in the right direction, toward a proper harmony between faith and reason.

In contrast, Darwinism lacks models for describing the origins of life. Even some skeptics will admit that natural selection cannot be the principle cause of origins. After all, natural selection depends on variation and heredity which





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exist only in organisms, so it can hardly account for their origins in the first place. Faced with this, most Darwinists

retreat to the high ground of metaphysical materialism and issue a philosophical guarantee that, in the absence of empirical proof, life will eventually be shown to be consistent with received Darwinian thought.<sup>27</sup>

This is not science, but rather ideology. To those who claim that ID does not account for origins either, they are correct, to an extent. ID does not account for origins naturalistically—or if one accepts MN, scientifically. But more importantly, it never claims to. ID rather says that we may need to be content with knowledge rather than understanding. Similarly, Dembski notes:

We do not *understand* how quantum mechanics works, but we *know* that it works. So too, we may not *understand* how an unembodied designer imparts specified complexity into the world, but we *know* that such a designer imparts specified complexity into the world.<sup>28</sup>

Ultimately, though it claims to be value-free, Darwinism presents itself as the ultimate bastion of skepticism. Dembski writes:

Skepticism, to be true to its principles, must be willing to turn the light of scrutiny on anything. Yet that is precisely what it cannot afford to do in the controversy over evolution and intelligent design. The problem with skepticism is that it is not a pure skepticism. Rather it is a selective skepticism that desires a neat and sanitized world which science can in principle fully characterize in terms of unbroken natural laws.<sup>29</sup>

In other words, skepticism is usually a tool to justify one's inherent, empirically untestable beliefs when in reality it should be the other way around. This brings up another important issue. If skepticism is a tool rather than a foundation, where do our core beliefs come from?

### Paradigms

As Blaise Pascal noted: "People almost invariably arrive at their beliefs not on the basis of proof but on the basis of what they find

attractive."<sup>30</sup> Cognitive psychologists have been telling us for years that evidence is rarely sufficient to change someone's viewpoints on controversial subjects. What is required is a paradigm shift. This is why pro-choice individuals simply cannot fathom why pro-lifers would hold to the arguments they put forth, and pro-lifers likewise look in disbelief at the pro-choice crowd. Debates rarely ever win anyone over from the other camp but rather influence those select few who are truly on the fence between the two opposing positions. More likely, debates simply confirm what people already "know." In the same way, a debate between ID and Naturalistic Evolutionary Theory is unlikely to change any minds once their "habits of thought" are already solidified.

How these "habits of thought" form is not fully understood. Emotion is certainly involved to some extent, and trust is obviously a significant factor as well, as most people cannot hope to comprehend all of the possible nuances of all subjects. Thus, we turn to those we trust and essentially take their word for it. After this point, reason takes a back seat, and arguments for our newly acquired position hold more weight than those against it. As one can imagine, these "habits of thought" emerge at an early age during our formative years. This is why so many psychologists look back to one's family situation and early experiences when attempting to understand how one came by specific beliefs.

If such paradigms are often solidified at an early age, then if we claim to value freedom of thought, it is simply not enough that we do not censure books. If we allow one side of an issue to be taught to the exclusion of the other, we are essentially doing the same thing, perhaps even to a greater degree. Note how children with Republican parents tend to grow up Republican, or those with Buddhist parents become Buddhists themselves. Yet it is much more difficult to think about the Republican platform critically without being exposed to the Democratic one. The same is true for religion, philosophy, even science. We claim it is unconstitutional to teach religion in school, and at least bad taste to mention politics in the early years of schooling, but it is nonetheless acceptable to speak of evolution as if it were an indisputable law. John Campbell writes:

[In ethics,] consideration of unorthodox or conventionally unacceptable alternatives is to be met without prejudice. In science, by contrast, even permitting the bare impression that there might be some arguments in favor of creationism—or in the present case, of ID—is a dereliction of educational responsibility.<sup>31</sup>

In fact, if we value freedom of thought as much as we claim, we should have classes in comparative religion, in public policy, and even between science and “science.”

### Dialectical Discussion

Agnostic Michael Ruse feels that “it is quite wrong to teach Intelligent Design in science classrooms.” Given this is essentially a semantic argument, I do not see the need to argue the point, especially since to his credit, he also says that “it is quite wrong to teach evolution as religion in science classrooms.”<sup>32</sup> This is exactly what I see happening today, however. In the lack of opposition, naturalism has become “the only game in town.” And when one is exposed only to the explanatory power of science and is presented with no alternatives that may limit the claims of scientism to defined boundaries, then the narrow, perfectly acceptable definition of MN becomes replaced by practical, philosophical, and universal materialism. In essence, the greatest threat to the separation between church and state has become the secular religion of Darwinism.

Certainly it is not the place of special interest groups to dictate curriculum but, as Campbell says:

by the same token, it is not the business of science educators to pronounce on metaphysical issues or pretend that they do not exist or have been resolved by empirical research.<sup>33</sup>

Whether or not we wish to call ID science, if we want to allow true freedom of thought, we need to allow individuals access to the required information during the formative years when their “habits of thought” emerge. To teach *only* naturalism is in essence to indoctrinate, not teach. Certainly, to not know anything of the robust, explanatory theory of evolution is to be scientifically illiterate. Yet, to not know of the evidential challenges to the theory, the assumptions it requires, and the philosophical implications and baggage it has, and to not know that in science, nothing is sacred and above question, is also to be scientifically illiterate. Once individuals can reasonably weigh their options, perhaps then we will see just what the theory of ID has to offer in terms of productivity.

### Conclusion

While the scientific method does typically necessitate a certain amount of extrapolation, one must always be careful not to assume that a theory can be extrapolated too far beyond the scope of its evidential base. Microevolution, the limited variation within boundaries that every college

geneticist has observed in the study of fruit flies, cannot necessarily be translated to “the unlimited plasticity of organisms to diversify across all boundaries”<sup>34</sup> that we know as macroevolution. One might do well to remember the times before Einstein, Maxwell, and Heisenberg, when physicists asserted with irrepressible certainty that Newton’s theory could account entirely for the dynamics of the universe. Today we know that

the proper domain of Newtonian mechanics is far more constricted. So too, the proper domain of the mutation-selection mechanism may be far more constricted than most Darwinists would like to admit.<sup>35</sup>

Certainly there is a great deal of evidence to support the notion that over millions of years, organisms evolved from one another. The genomes of humans and chimps differ by only .01%, strongly suggesting common ancestry. Gorillas have one less chromosome than humans, but only because it appears that two of their chromosomes fused into one at some point in their history. TATA boxes and other vital DNA sequences show amazing consistency throughout the whole of diverse life on this planet. The bone structure of fins, wings, hands, and feet of various organisms are surprisingly similar considering the quite different functions of each. Few would seriously argue that evolution has strong support from the physical world. However, more and more, recent discoveries are presenting serious, virtually unsolvable issues for the naturalistic metaphysic.

In and of itself, this is not enough to reject the theory, for “it is not enough to show that a particular explanation is wrong. One must also be able to advance a *better* alternative.” While an alternative is not logically necessary to discard an inadequate explanation, in psychological and sociological practice, this does seem to be the case. The recognition of this phenomenon has become accepted wisdom in the philosophy of science thanks to Kuhn’s convincing argument for paradigms. ID offers one such possible solution. Equally as important, it is not merely a god-of-the-gaps assertion claiming that whatever we cannot explain must be God’s doing, but rather a conclusion based on the laws of probability.

Perhaps there is truth in both or neither view. Regardless, as responsible individuals we must remain open-minded in order to let the weight of evidence and reason direct our sentiments. This means, among other things, that MN, while important, is not non-negotiable. It also means that we must come to grips with the limitations of our knowledge, both in Evolutionary Theory and ID. Without a foundation of MN, evolutionary theory has no more legitimate claim over truth than ID except that it has shown more beneficial results. This is not necessarily an inherent quality of the former, however. Nor can one make such a claim until ID has passed its emergent period of prominence. To this end, as Christians we should



# Students and Early Career Scientists Corner

## *Science or Science: The Question of Intelligent Design Theory*

support a more detailed examination of this concept, so that we may know the truth we devote our lives to seeking. ❁

### Notes

- <sup>1</sup>Alvin Plantinga, "Methodological Naturalism?" *Origins & Design*, 18 (1997): 1-2.
- <sup>2</sup>Howard Van Till, *Science Held Hostage: What's Wrong with Creation Science and Evolutionism* (Downers Grove, IL: InterVarsity Press, 1988), 127; Francisco J. Ayala, "Design without Designer," in *Debating Design* (Cambridge: Cambridge University Press, 2004), 70.
- <sup>3</sup>William Dembski, "Detecting Design in the Natural Sciences," *The Natural History Magazine* (2002): 41.
- <sup>4</sup>William Dembski, *The Design Revolution* (Downers Grove, IL: InterVarsity Press, 2004), 292.
- <sup>5</sup>*Ibid.*, 294.
- <sup>6</sup>Robert T. Pennock, *Tower of Babel* (Cambridge: The MIT Press, 1999), 153.
- <sup>7</sup>Dembski, *The Design Revolution*, 293.
- <sup>8</sup>*Ibid.*, 295.
- <sup>9</sup>Pennock, *Tower of Babel*, 168, 170.
- <sup>10</sup>Massimo Pigliucci, *Denying Evolution* (Sunderland, MA: Sinauer Associates, Inc., Publishers, 2002), 173.
- <sup>11</sup>Robert O'Connor, "Science on Trial: Exploring the Rationality of Methodological Naturalism," *PSCF* (1997): 17.
- <sup>12</sup>*Ibid.*, 19.
- <sup>13</sup>*Ibid.*, 21.
- <sup>14</sup>J. P. Moreland, ed., *The Creation Hypothesis: Scientific Evidence for an Intelligent Designer* (Downers Grove, IL: InterVarsity Press, 2004), 99.
- <sup>15</sup>John Campbell, "Why Are We Still Debating Darwinism? Why Not Teach the Controversy?" in *Darwinism, Design, and Public Education*, ed. John Campbell and Stephen Meyer (East Lansing, MI: Michigan State University Press, 2003), xxv.
- <sup>16</sup>Plantinga, "Methodological Naturalism?" 1-2.
- <sup>17</sup>David Depew, "Intelligent Design and Irreducible Complexity: A Rejoinder," in *Darwinism, Design, and Public Education*, 445.
- <sup>18</sup>*Ibid.*, 445.
- <sup>19</sup>Dembski, *The Design Revolution*, 249.
- <sup>20</sup>Depew, "Intelligent Design and Irreducible Complexity: A Rejoinder," 445.
- <sup>21</sup>*Ibid.*, 446.
- <sup>22</sup>Robert T. Pennock, "Why Creationism Should Not Be Taught in Public Schools," *Intelligent Design Creationism and Its Critics* (Cambridge: The MIT Press, 2001), 757-8.
- <sup>23</sup>Michael Ruse, "On Behalf of the Fool," in *Darwinism, Design, and Public Education*, 478.
- <sup>24</sup>Dembski, *The Design Revolution*, 312.
- <sup>25</sup>*Ibid.*, 314.
- <sup>26</sup>*Ibid.*, 317.
- <sup>27</sup>Depew, "Intelligent Design and Irreducible Complexity: A Rejoinder," 448.
- <sup>28</sup>Dembski, *The Design Revolution*, 157.
- <sup>29</sup>*Ibid.*, 201.
- <sup>30</sup>Blaise Pascal, *The Art of Persuasion* (Boston, MA: Harvard Classics, 1914), 105.
- <sup>31</sup>John Campbell, "Intelligent Design, Darwinism, and the Philosophy of Public Education," in *Darwinism, Design, and Public Education*, 26-7.
- <sup>32</sup>Campbell and Meyer, eds., *Darwinism, Design, and Public Education*, 483.
- <sup>33</sup>Campbell, "Intelligent Design, Darwinism, and the Philosophy of Public Education," 22.
- <sup>34</sup>William Dembski, *Intelligent Design* (Downers Grove, IL: InterVarsity Press, 1999), 113.
- <sup>35</sup>Michael Behe, *Darwin's Black Box* (New York: Free Press, 1998), 154.
- <sup>36</sup>Pigliucci, *Denying Evolution*, 173.