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The Risk of Intelligent Design

11/1/2003 - Lawrence C. Scharmann

Alternative explanations to evolution are very popular these days. An articulate advocacy exists for the Intelligent Design (ID) theory, led nationally by the Seattle-based Discovery Institute and academicians like Michael Behe (1996), Phillip Johnson (1997), and William Dembski (1998). In many U.S. communities science teachers are besieged with requests by local boards of education to include ID and evidence against evolution. Whether national or local, those representing the latest attacks on biological evolution demand such alternatives out of fairness, for religious reasons, or to protect a basic freedom of choice. The motives of individuals making these demands notwithstanding, the consequences of adopting ID as a scientific theory must be carefully weighed.

When presented with fascinating new biological questions concerning the human genome, for example, we might apply both evolution and ID tools to see which one works best. Better scientific theories, after all, are distinguished from poorer ones on the basis of their ability to explain patterns of evidence, make accurate predictions, and solve unique scientific problems. Evolution has evidenced the repeated ability to do all three. ID, unfortunately, only explains anomalous patterns of evidence. Thus, even if one were to admit ID as a viable theoretical companion to evolution, it does not appear to be as powerful. Predictions using ID theory, in other words, don't occur and scientific problems (e.g., finding new vaccines and creating new antibiotics) are left completely unsolved. What advantages does ID offer?

ID declares that some biological systems (i.e., metabolic pathways and blood clotting) are irreducibly complex. Take a part away and the system ceases to properly function. Since the system functions accurately only when completely intact, a series of gradual accumulations over time appears to be insufficient to explain the system in question. Such phenomena are considered both evidences for ID and evidence against the evolutionary mechanism of gradual change over time (i.e., modification with descent).

Although scientific researchers like Kenneth Miller (1999) have painstakingly provided evidence to refute each ID claim, let's accept the ID logic at face value. If school boards demand an exploration of evidence both for and against evolution, then school boards should be equally insistent that science teachers apply this same logic to ID. A frightening problem occurs, however, when reverse logic is applied (out of fairness): What happens when students encounter evidence that is seen to more strongly support evolution and simultaneously create doubt concerning the intelligence of the design?

For instance, in examining the reproductive behavior of certain bedbugs it is noted that after completion of the act of copulation, the female's cloaca is virtually cemented shut. In generations of sexually mature adults where males predominate, some males might be completely shut out of the reproductive process. However, an interesting strategy emerges. The males not directly engaged with a female sometimes penetrate the abdomen of the "engaged" male thus using the directly copulating male as a sperm conduit. The evolutionary model explains this behavioral adaptation quite easily, however repugnant the behavior may seem, as simply finding a means to pass along one's genes. Would one like to invoke the use of ID in this instance?

Perhaps those individuals advocating ID should be very careful for what they wish. If students start to weigh evidence for and against ID theory, they might just begin to question the wisdom of the designer's intelligence. Thus, while ID seems compelling to many when the examples to which it is applied are aesthetically appealing, it leaves us (scientifically and theologically) in a risky position to explain things we would rather ignore.

In the end, it matters little whether a scientific theory is true (thus, we have no reason to demand that students "believe" in them); instead, what matters is whether a theory works to explain and solve problems of personal, societal, and scientific interest. When science teachers supply any theory as a new tool, they are not making a return of other tools (e.g., religious beliefs) a condition for accepting the new one. In other words, it is important for students, parents, teachers, and individual school board members to realize that students can have many tools in their belt. What one needs to learn is to recognize where and when it is most appropriate to make use of each tool.

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