NAGEL AND INTELLIGENT DESIGN

Reginald Williams

1. Introduction

Thomas Nagel has recently discussed whether intelligent design theory (IDT) is scientific and should be taught in public schools alongside the theory of evolution (ET). Nagel writes:

> I do not regard divine intervention as a possibility, even though I have no other candidates. Yet I recognize that this is because of an aspect of my overall worldview that does not rest on empirical grounds or any other kind of rational grounds. . .. [S]omeone who can offer serious scientific reasons to doubt the adequacy of [ET], and who believes in God, in the same immediate way that I believe there is no god, can quite reasonably conclude that the hypothesis of design should be taken seriously. ('Public Education and Intelligent Design'. *Philosophy and Public Affairs* 36.2 (2008), pp. 187–205, p. 192.)

Nagel's treatment of IDT raises two basic questions and answers both of them wrong. First, what does it mean for a theory to be scientific, such that ET counts but IDT does not? Second, should science teachers at the high school level or below educate children about debates in science – e.g. whether a designer is required to explain the origin of life? Such teachers, I submit, should be explaining scientific consensus.

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2. IDT as Science

Nagel takes the 'central issue' in the debate over IDT to be whether 'the sources of genetic variation' in living organisms are 'uniformly random', and he cites commentators who contend that the likelihood of this variation's evolving by chance is 'vanishingly small' (p. 192). Michael Behe, for instance, argues that 'alterations to DNA over the course of the history of life on earth must have included many changes that we have no statistical right to expect' (See *The Edge of Evolution* 2007, p. 165.) Nagel, then, countenances a common argument for IDT: that given the improbability that life would randomly evolve on earth, it is plausible to believe, from a scientific standpoint, that there exists a purposeful designer. Nagel, however, makes three additional points that together reveal a misunderstanding of science.

First, Nagel argues that 'Biblical literalism is not a scientific hypothesis because it is not offered as an explanation of the empirical evidence, but is accepted as a divine revelation' ('Public Education', p. 196). Second, Nagel contends that unlike defending such 'literalism', defending IDT 'requires only that design be admitted as a possibility, not that it be regarded as empirically unassailable'. Nagel adds: 'It would be difficult to argue that the admission of that possibility is inconsistent with the standards of scientific rationality' (p. 199).

Nagel, then, appears to hold, rightly, that science purports to be an explanatory enterprise: that for a principle or theory to be scientific, it must *explain* something. The problem, in the third place, is that Nagel states:

> The claim that [IDT] is bad science or dead science may depend, almost as much as the claim that it is not science, on the assumption that divine intervention in the natural order is not a serious possibility. That is not a scientific belief but a belief about a religious question: it amounts to the assumption that

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> either there is no god, or if there is, he certainly does not intervene in the natural order to guide the world in certain directions (p. 198)

To dismiss IDT as bad science, dead science, even non-science, one need not assume that there is no god who intervenes in nature. One could argue that even if there were a god who intervenes, theorizing that one does fails to explain anything better than does ET. And one could make this argument even if one follows Nagel and doubts that ET is the 'whole story' of the 'history' of life. Consider a thought experiment:

> Suppose that careful observations throughout history have shown that the assembly of jigsaw puzzles has always resulted from the action of creative, purposeful human beings. Suppose, further, that individual humans have been known to assemble jigsaw puzzles with as many as 100,000 pieces; and groups of humans have been known to assemble jigsaw puzzles with as many as 20 million pieces. The former task, however, has taken years to complete; the latter, multiple generations.
>
> Now suppose, in addition, that scientists have recently discovered an assembled jigsaw puzzle with 10 centillion pieces: a discovery that has motivated a vast literature to explain. And suppose that to explain this discovery via earthly human labor defies all the odds: There have not been enough generations of humans to make it probable that there be such a puzzle. Suppose, finally, that some scientists have argued that, given the evidence, there must exist a creative, purposeful super-human who assembled this puzzle – i.e. a transcendent, super-natural human.

If the history of earthly humans cannot explain this puzzle, how is positing a transcendent super-human

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supposed to explain it? If the odds are against taking the purposeful action of earthly humans to account for this puzzle, how does science benefit from the claim that a supernatural human created it?

One could contest my assuming that the purposeful action of humans is required to explain the existence of jigsaw puzzles. No one, after all, thinks the action of such persons is required to explain life. This, however, reveals more of a problem for IDT than for my argument. I, after all, am granting that life is to be at least *somehow explained* by purposeful action. But it's an open question whether life is to be explained in *any such* terms.

Nagel admits:

> We do not have much scientific understanding of the creative process even when the creator is human; perhaps such creativity too is beyond the reach of science. Leaving that aside: the idea of a divine creator or designer is clearly the idea of a being whose acts and decisions are not explainable by natural law... But that does not imply that there cannot be scientific evidence for or against the intervention of such a non-law-governed cause in the natural order (p. 189)

The problem is that it makes no sense to infer, from an unlikelihood of something's existing independently of purposeful action, that it came to exist via such action *when no purposeful action whatever* has been known to engender the relevant sort of thing.

It is one thing to infer that a super-purposeful being or process engendered a grand instance of something when at least lesser instances of it have been engendered by some purposeful being or process. But IDT takes the actions of a super-purposeful being to account for the existence of something – life – that is not known to derive from *anything* purposeful. So even if we lack a 'statistical right' to believe the current ET of life's origin, it makes no sense

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to infer that a super-purposeful being accounts for life. One might *postulate* that such a being created life. Science, however, is not a collection of postulates; it is a progressive enterprise that constantly strives to better explain things.

The failure of IDT to explain anything better than does current ET, let alone to predict anything, is the problem with counting IDT as scientific. Current ET may have problems; let's say it does. The inference to draw is that we need a new theory of life's origin, or a better formulation of ET, which is more probable than is current ET. IDT is not the theory because it provides a seemingly *impossible* account of life's origin. Since we have never observed any designer introducing a new kind of life on earth, it is unclear what it would even *mean* for a designer to introduce life.

2. IDT as Science Curriculum

If IDT cannot improve on current theories that scientists embrace – if IDT cannot better explain the existence of life or anything else than does current ET – this is a good reason not to teach IDT as science. One might teach IDT in a philosophy class; one might teach it in a history of science class alongside other accounts of the world that scientists reject. IDT, however, is not scientific because it explains nothing. And there are two additional reasons to exclude it from science curriculum at the high school level and below.

First, most respected scientists today endorse ET and frame their research in terms of it. Given this, science teachers at the high school level and below should teach ET, not IDT. For such teachers should be informing children of what actual scientists believe: of scientific consensus, not of what this consensus should perhaps be, or of what it could be in the future. If one wants to push the envelope in science, one should become a professor; tenure committees await the results of one's research.

Second, teachers at the high school level and below already have more course content than they can cover.

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Teachers' time is a scarce resource, and it is questionable whether any minute of instructional time at the high school level or below should be spent pursuing debates about science, rather than explaining scientific consensus (which again includes ET) and teaching children how to read, write, and do arithmetic.

I respect Nagel for assessing the scientific and educational merits of IDT; philosophers have not devoted enough attention to the topic. Nagel, however, fails to show that IDT is as scientific as ET or a legitimate component of science curriculum. Until IDT is shown to explain something better than do current scientific theories – until Behe, Nagel, and others even prove IDT *less improbable* than they consider ET – IDT should not be taught as science. I would like to thank Daniel Dennett, Philip Kitcher, and Michel Jooley for insightful comments on this paper.

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