



BRILL

Book Reviews



Paul Thagard

The Brain and The Meaning of Life. Princeton, N.J.: Princeton University Press, 2012 (original hardcover publication 2010). Pp. 296. US\$ 19.95 (Paperback). ISBN 9780691154404.

This is a *conditionally* momentous book. I would like to report that it is momentous *simpliciter*, but alas can't: For only *if* Thagard's arguments are sound is the book an epic, seminal, revolutionary achievement in the intersection of cognitive science and religion. And what would soundness purchase? Soundness of his reasoning would establish that God doesn't exist (Chapter 2); that all mentation is purely physical (Chapter 3); that immortality and free will are illusory (Chapters 2 and 6); that nonetheless life isn't meaningless, because while there is no God and no afterlife, we can nonetheless love, work, and play during our short lives (Chapter 7); and moreover that some behaviors are "objectively" obligatory, forbidden, and permissible (Chapter 9). An immediate corollary would be that Augustine, Aquinas, Pascal, Descartes, Leibniz, and Gödel (and many other such "immortals"), with respect to God, the human mind, and ethics, are fundamentally mistaken. An exactly parallel corollary would sweep aside contemporary theists like Oxford's Swinburne (about whom more will be said below). In this light, perhaps you can agree that were Thagard to have pulled off his agenda in but a breezy, non-technical 296 pages (that's paperback; I read the wonderfully navigable Kindle version), the kudos due him would indeed be rather difficult to exaggerate.

What sort of reasoning does Thagard deploy in order to argue for his claims? The cornerstone of Thagard's argumentation is what he calls *inference to the best explanation* (ITBE). This reasoning schema will be familiar to many readers. According to it, the investigator formulates a number of hypotheses to explain some target phenomenon, and then selects the best one, which is then affirmed, while the others are cast aside. For Thagard, there is almost invariably a superior explanation to be had when that explanation appeals to how the brain works.

Unfortunately, there are some problems, perhaps fatal ones, infecting Thagard's cornerstone. I have space to mention but two. Neither, alas, are discussed by Thagard.

First, while all will concede that something like ITBE is routinely used in everyday life, and in the natural sciences, compelling deployment of ITBE in science is exceedingly fragile – for many reasons. One is that ITBE is, as logicians say, *formally invalid*; that is, unlike a proof of the sort that students are routinely taught to construct in high-school geometry, the conclusion in ITBE (= the “winning” hypothesis) can be false even if the premises (= evidentiary data) are true; and therefore, deduction trumps ITBE, which therefore in turn means that the great results of mathematical physics, number theory, decision theory, game theory, geometry, mathematical logic, and so on, are all completely and utterly separate from ITBE. One wonders how it would strike Gödel to learn that the long, dazzling string of theorems that compose his peerless and immortal oeuvre, and along with them the hard-won proofs that establish these propositions – that all this is by Thagard's lights outside the true foundation of all things scientific.

A second crack in Thagard's cornerstone is simply that it's *not* a cornerstone. The reason is straightforward: Those not already subscribing to his main claims will request from him clarification and defense of ITBE. Since Thagard will presumably not be so unwise as to base his reply on ITBE (that would instantly make his work completely circular), he will need to appeal to something more fundamental – in which case ITBE becomes not a cornerstone, but at minimum a brick laid *above* the level of the cornerstone. It's of course far from clear what makes one explanation better than another (economy? “elegance”? “depth”? reach? ...), and the question is still subject to much debate. That debate by its very nature revolves around reasoning patterns more fundamental than ITBE. Unfortunately, Thagard never applies these patterns in order to substantiate his dramatic claims. That is especially odd in light of the fact that traditionally those defending the negations of his claims *do* apply these more fundamental schemas in their reasoning.

Thagard finds the American economy lacking in light of its laissez-faire-ness (Chapter 10), but leaving that hornet's nest aside, surely one brute fact about this economy is that it's fuelled in large measure by entertainment, with TV shows and films (and the like; e.g., digital games) perhaps the USA's chief export. Perhaps the vast majority of these narratives are shallow, but some are not; one case in point is the highly decorated *Breaking Bad*, which seems to point the way to the Achilles' heel in Thagard's position (http://en.wikipedia.org/wiki/Breaking_Bad). *Breaking Bad*'s anti-hero is Walter White, who makes a series of premeditated decisions to descend into moral darkness; that is, to steadfastly

do the immoral, not the moral. The vulnerability to which I refer is the “why be moral?” conundrum, in the context of minds like White’s. The remarkable thing is that Thagard tries to give his readers the impression that he is willing to bravely take up this conundrum, for he writes:

Why be moral? This question is fundamental for ethics, because even if people can figure out what are the right things to do, we can still ask why they would in fact do those things. The problem of moral motivation – what makes people do what is right – has two classes of answers ...

first three sentences in section 5 of Chapter 9 “Ethical Brains”, Kindle Edition

This quote, and indeed the rest of section that it launches, captures in gem-like fashion the cancer of imprecision that infects Thagard’s book. I say this because the “why be moral?” problem is decidedly *not* the problem of what in fact makes people do what is right (or the problem of what in fact makes people do what is wrong). Most people most of the time may well choose not to seriously hurt other people in significant part because their mirror neurons (as Thagard claims) cause them to be empathetic. But the “why be moral?” problem is exactly the problem summed up by the man who deucedly ponders and acts thus: “While murder (or a Ponzi scheme, etc.) will bring me a fortune, it does make me shudder to think about the pain and suffering I would inflict. That’s probably due to the fact that I have inherited a neural basis that inclines me to be generally well-behaved and squeamish at the prospect of perpetrating murder and mayhem. I also know it’s wrong to murder in order to secure my personal ends – but nonetheless I shall have the courage to be a man of action and seize the day! After all, I doubt very much that when I have my millions, and all that they can buy, it will bother me all that much that I have killed, and besides, it’s well-known that practice makes perfect, which in my case will no doubt cash out as that practice makes for a deadened conscience.” Thagard completely and utterly ignores the problem that such a man presents.

What, specifically, of Thagard’s arguments for atheism? When *ITBE* is applied to such things as the brain, the core idea is that evolution, not God, is the best explanation. But of course evolution can’t explain evolution itself; more generally, laws of physics, chemistry, and biology cannot be ultimately explained by laws of physics, chemistry, and biology, and it’s those exquisite laws and their harmonic governance of stuff physical that theism explains, in much the same manner that the existence of a choreographer explains not the movements of particular dancers, but rather the *principles* followed by dancers. This line of reasoning, which gladly accepts evolution by mutation and natural selection as an empirical fact, is famously set out by Richard Swinburne, who

argues not that the complexity of physical objects (e.g., eyes) is what implies that God likely exists, but that the existence of the laws that enable and govern the evolutionary production of those objects does.¹

Swinburne, above all other rationalist believers, is worth considering in the light of Thagard's chief reasoning pattern, for in what cognoscenti will doubtless regard to be a case of considerable irony, the 20th century's most extensive non-deductive case for theism is founded upon none other than Thagard's vaunted ITBE – but Oxford's Swinburne, the author of said case, takes pains to achieve a level of rigor quite beyond Thagard's presentation, as Swinburne ties it rigorously to Bayes' Theorem, while ITBE remains obscure. Of more than passing interest is the further fact that Swinburne's earlier deployment of ITBE has been focused specifically upon the nature of the human mind.²

Perhaps the most puzzling thing about *The Brain and the Meaning of Life* is that Thagard seeks to extract the lion's share of his ambitious philosophy from empirical information about *our* brains. This makes Thagard's project strangely parochial. After all, cognitive science and its sister field artificial intelligence are presumably nomothetic: they are supposed to provide a science of cognition and intelligence, *in general*. Yet it's hard to see how our brains provide an answer to such deep and far-reaching questions as what is intelligence, let alone what is the meaning of life for intelligent life. After all, what would we say to people whose substrates aren't ours? Would we tell an alien silicon-based race tempted to exterminate ours that we have mirror neurons, which motivates us not to do such things? Probably not. The entire edifice, then, has a suffocating, claustrophobic air about it. Along the same line, Thagard is either ignorant of, or chooses not to consider, the malleability of our brains. Clearly, we will reach a point where we can modify our brains in dramatic, lasting ways. It is hard to see how an appeal to how our brains currently work provides an answer to the ethical question of whether it's permissible, say, to dampen the effects of mirror neurons so that we can become more coldly calculating. And it is exceedingly hard to see how what Thagard says will apply to future versions of ourselves whose brains don't work like ours happen to now.

To conclude, atheists will perhaps be mildly heartened, and ditto for those wanting to learn tid-bits about current neuroscience from someone who plainly knows more than a thing or two about the brain, but anyone who is not *already* an atheist and a materialist and a reductionist will be mystified by

1 Richard Swinburne, *The Existence of God* (second edition; Oxford: Oxford University Press, 2004).

2 Richard Swinburne, *The Evolution of the Soul* (Oxford: Oxford University Press, 1986).

Thagard's confidence that his reasoning is compelling, for at least the reasons mentioned above. In the end, while Thagard's ambition is towering, his case is weak and puny, and the contrast between the two is rather stunning.

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