John Woodmorappe

Jerry A. Coyne is a professor at the Department of Ecology and Evolution at the prestigious University of Chicago. (I know some professors and students there, and it is commonly regarded as one of the finest research universities in the world.) As soon will become obvious, this poorly thought-out book is inconsistent with what one would expect from such a prestigious university.

Although Coyne is a scientist, most of his book is on the philosophy and sociology of religion. The major theme of this book is that there is no evidence for the factuality of anything paranormal or supernatural, and that is why scientists stick to naturalism, which does not demand an a priori assumption (e.g. p. 93). However, Coyne never explains what kind of evidence he, or other scientists, would find convincing. It sounds as if no evidence would ever being sufficient.

Coyne’s flippant thinking

The informed reader will quickly realize the superficiality of this book. Here are just a few examples.

To begin with, author Jerry A. Coyne recounts his background:

“And a bit more biography is in order: I was raised a secular Jew, an upbringing that, as most people know, is but a hairsbreadth from atheism. But my vague beliefs in God were abandoned almost instantly when, at seventeen, I was listening to the Beatles’ Sergeant Pepper album and suddenly realized that there was simply no evidence for the religious claims I had been taught—or for anybody else’s either. From the beginning, then, my unbelief rested on an absence of evidence for anything divine” (p. xiii).

Amazing! All it took was one song to wipe out the 17 year-old Coyne’s however-tentative belief in God. And he complains that those who accept the existence of God are shallow thinkers!

The author jumps to conclusions with effortless ease. For instance, he mentions some experiment in which a brain scan shows a signal a few seconds before the person is consciously aware of making a decision (pp. 15–17). Presto! Free will has been disproved. Better still, the capacity of humans choosing to freely accept their Savior, and to choose right from wrong, also has been disproved.
I could not help but think of Mark Twain, who said, “There is something fascinating about science. One gets such wholesale returns of conjecture out of such a trifling investment of fact.” As everyone familiar with neurobiological data can attest, the way a brain ‘lights up’ is amenable to different interpretations.

Coyne’s statements about Scripture are no better. He glibly asserts, for example, that there is no evidence for the Exodus (pp. 90, 258). More on Coyne’s fledgling understanding of the Bible later.

The author delivers standard jibes against creationists (p. 104). They are so ludicrous, and so outdated, that I will not dignify them with a response.

**A decisive blow against religious compromise**

To his credit, Coyne rejects the “all religions are basically the same” notion, pointing to the fundamental and irreconcilable differences between religions. He also rejects the “Bible is metaphor” concept, pointing to the tendency to ‘allegorize’ Scripture in order to escape conflicts with science. He also debunks those who invoke Augustine and Aquinas to justify their compromise. He quotes from these luminaries to show that a figurative interpretation of Scripture does not replace a literal one. In fact, figurative interpretations *presuppose* the validity of the standard literal interpretations! (pp. 57–58).

What are scientific creationists up against? The reader may be struck by how well funded are the forces of evolutionary compromise. For example, the wealthy Templeton Foundation funds BioLogos, which, in the words of Coyne, “is designed to show evangelical Christians that they can accept both Jesus and Darwin” (p. 19).

Coyne at least finds creationists more grounded in reality than compromising evangelicals and other accommodationists. He quips:

> “Sometimes it seems that scriptural literalists are more intellectually honest than the ‘scripture is not a textbook’ crowd, who, rather than admit that science has falsified much of the Bible—and, by implication, has cast doubt on the rest of it—argue that the book is effectively one long parable. After a stiff dose of pick-and-choose apologetics, the words of the Australian creationist Carl Wieland seem like a gust of fresh air” (p. 75).

**Evolutionistic faith in action**

This is how Coyne imagines (and I stress imagines) the preserved evolutionary origin of life:

> “We know it happened between 4.5 billion years ago, when the Earth was formed, and 3.5 billion years ago, when we already see the first bacterial fossils. And we’re virtually certain that all living creatures descended from one original life-form, for virtually all species share the same DNA code, something that would be a remarkable coincidence if the code arose several times independently. But because the first self-replicating organism was small and soft-bodied and thus could not fossilize (it was likely a molecule, perhaps surrounded by a cell-like membrane), we don’t have a way of recovering it” (p. 37).

Ah, that poignant, child-like faith of the evolutionist! (See figure 1.) And Coyne complains about religious believers accepting the factuality of something that they cannot see and things that cannot be tested! What’s more, Coyne complains about theists engaging in falsification-proof reasoning and falling back on dogmatism. Ironic, to say the least!

Not surprisingly, Coyne repeats the rationalist dictum that “Extraordinary claims require extraordinary evidence”. Just as non-surprisingly, he exempts atheist ideas from such a standard of scrutiny. From his quoted statement, above, it is obvious that there is no evidence—let alone extraordinary evidence—that life came about from non-living chemicals. But what does it matter? The atheist believes anyway. That is all he has.

But wait. Coyne is not finished yet. Faced with the problem of the fine-tuned universe making life possible, he conjures up hypothetical exotic forms of life that don’t require a fine-tuned environment, perhaps based on silicon or—better yet—not even based.

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**Atheism**

The belief that there was nothing and nothing happened to nothing and then nothing magically exploded for no reason, creating everything and then a bunch of everything magically rearranged itself for no reason what so ever into self-replication bits which then turned into dinosaurs.

Makes perfect sense

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Figure 1. Just some of the untested beliefs of the atheist
on matter (p. 162). Isn’t Coyne’s logic wonderful? He will not believe in an unseen spiritual God but is prepared to believe in an unseen ‘spiritual’ form of life!

The author characterizes the multiverse theory as follows:

“Now, it’s not clear whether we can actually show that there are multiple universes, for they might be undetectable from our own. Still, physicists are beginning to devise ways to test their existence, and we’ve recently seen evidence for at least one of their preconditions: cosmic inflation” (p. 163).

Regardless of whether or not either or both the multiverse and God are testable, the former of which he affirms and the latter of which he denies, we see once again Coyne’s bottomless atheistic evolutionary faith in action.

In common with many other evolutionists, Coyne laments the fact that much of the American general public does not accept evolution. Perhaps this is, first and foremost, because the evidence for molecules-to-man evolution is so weak that even the layperson can see through it.

Evolution and testability

The author repeats the contention that the ultimate claims of religion are not testable while evolution is testable—in that evidence could be found to disprove it. In actuality, evolution is so plastic that it, in practice, is not susceptible to potential falsification. Any observation could be fitted into it. Permit two examples raised by Coyne (p. 31).

Coyne repeats the stock argument about a mammal fossil, found in Paleozoic strata, disproving evolution. It would not. Ad hoc modifications of phylogenies happen all the time. Stratigraphic-range extensions—including spectacular ones—also happen frequently. So, if a mammal was found in the Paleozoic, evolutionists would just recast their ideas in terms of mammals evolving earlier than previously supposed, and having a polyphyletic origin—one in the Triassic and an unexpectedly earlier one in the Paleozoic. After all, science is full of surprises, and science always changes in the face of new discoveries.1

He also claims that an adaptation in a species that is only relevant for another species—such as a pouch found on a wallaby that gives birth to fully-developed placental babies that need not go through a pouch-dwelling stage of development—would disprove evolution. It would not. The evolutionist would simply say that here is an unusual marsupial mammal that has—only recently—evolved a placental-style fully developed neonate at birth, enabling it to skip the pouch-dwelling stage. Not enough time has elapsed for the pouch to disappear, or at least become vestigial, in the mother. To make the foregoing scenario more intellectually-sounding, he would probably say that evo-devo predicts the rapid emergence of major changes in living things caused by an evolutionary ‘tweaking’ of the rate of ontogenic development.

Pointedly, this very reasoning that Coyne imagines would falsify evolution actually exists in evolutionary thinking! Humans have generally irrelevant adaptations, ‘aquatic’ ones, which would be suitable to another, aquatic, species. Humans have several adaptations, such as near-hairlessness, face-to-face copulation, high body fat, and bipedalism, that are non-existent or rare in non-human primates. This has led to the aquatic hypothesis, which posits that a branch of ancestral primates had started evolving to an aquatic lifestyle, but something changed, and that is why humans are stuck with a number of aquatic adaptations even though they are not aquatic.2

Any conceivable biological observation can be assigned an evolutionary explanation. If there is selfishness in nature, this is intuitively obvious. But if there is altruism, it must be because of kin selection. But what happens when neither individual fitness nor group fitness are at stake? Here Coyne, once again, engages in the kind of auxiliary hypotheses that he is fond of accusing religionists of doing:

“Animals that have their own litterers will often adopt members of another species. … This happens because the ‘adoption’ option simply isn’t common in nature, and natural selection has operated to promote the suckling of infants that happen to be nearby—which are almost invariably your own” (pp. 175–176).

So much for the testability of evolution.

Why are leading scientists almost all atheists?

Rejection of God is fundamentally a spiritual problem, and it afflicts intellectuals the most. This has long been known (1 Corinthians 1:25–27).

Coyne claims that, of all ID (Intelligent Design) proponents that he knows, only David Berlinski is not motivated by religion. If true, so what? How many evolutionists, especially ardent ones, are motivated by atheism, if only subconsciously?

The author cites some studies showing that scientists are much more likely to be atheists than the American general public. As for elite scientists—members of the National Academy of Sciences—the disparity reaches staggering proportions. Fully 93% are atheists or agnostics and only 7% believe in a personal God (p. 12). From this, Coyne concludes that the more scientifically minded a person is, the more likely he/she appreciates the lack of evidence for the supernatural. However, not to be
denied the 100% that he would like to have, he disparages the 7% who do believe in God as engaging in compartmentalized thinking. How self-serving!

Most concerning of all, Coyne does not consider alternative explanations for the foregoing trends. To begin with, advancement in academia, such as the granting of tenure and the election to the National Academy of Sciences, are not solely based on scholarly merit or the quality of one’s thinking. They are, in part, a popularity contest. Internal politics also plays a role, as does the ‘fit’ of the candidate to the culture of academia.

Let us analyze all this. Could it be that atheist scientists are more likely to be elected to the National Academy of Sciences because they are a better match to the secular ethos of academia? Could even intellectual snobbery play a role—in that those scientists who reject the ways of the ‘ignorant masses’ (read: religion) are more likely to be esteemed by their peers, and thereby elected to the National Academy?

For the sake of argument, however, let us assume that election to the National Academy of Sciences is based on high-level scientific merit and nothing else. Could it be that those who will not accept God gravitate to science because its inquisitive and skeptical character makes it easier for them to rationalize their rejection of God and His authority? More specifically, could it be that atheists are especially abundant in the disciplines of biology and psychology (p. 13) because these very fields are the most effective ones in making one feel successful in one’s evasion of God? Finally, could it be that the most intelligent scientists are the ones most likely to be atheists because—by the very fact of their powerful intellect—they are the ones most in need of cultivating a highly developed scientific mindset for the purpose of rationalizing their highly cognizant rejection of God?

But let us go beyond religion. Consider the fact that scientists (especially elite scientists) usually reject not only God, but also anything non-material (such as any form of life after death). Does the exercise of the scientific method tend to make scientists materialists or do people who have a materialistic mindset (what-we-see-is-all-that-matters) tend to gravitate to modern uniformitarian science precisely because of its materialistic outlook? One could think of the psychologist Maslow’s hammer: if you are a hammer, then everything to you is a nail.

**Straw-man believers**

The author complains about strawman arguments. Ironically, he is consistently the worst offender.

Coyne cites evidences that most religious believers are that way because of upbringing or emotion, not reason. However, exactly the same could be said of most atheists—most of whom were either raised with little or no religious grounding or are rebelling against God for some reason (sinful lifestyle, bad experiences with religious believers, personal tragedy, perceived unanswered prayer, etc.)

Now consider science itself. How many scientists accept what they believe (e.g. evolution) because they have weighed the evidence in depth for themselves, and have genuinely become convinced of its correctness, and how many believe out of a spirit of conformity with prevailing scientific opinion? Coyne repeats the mantra that science, unlike religion, encourages doubt, and that science treats questioning as a virtue instead of a vice. This is a half-truth, as evidenced by the many untoward experiences that dissenting scientists had experienced in the past. If nothing else, this can include the denial of funding for research.

In attempting to show how ‘scientific’ those of his ilk are, Coyne asserts that scientists freely accept disproving evidences, and contrasts this with some prominent believers who have said that no evidence could ever convince them, for example, that the Resurrection of Jesus Christ never happened. Excuse me, but how many atheists would never believe in God no matter what? (I have heard of atheists who say that, were the sky to open up and were they to see God face-to-face, they would sooner believe that they had a psychotic episode than they would admit the reality of God.)

Now consider disproof in science itself. Coyne points out that the Piltdown Man hoax was exposed by scientists, but conveniently fails to mention that it had been an amateurish forgery, and that it had taken only 50 years for the hoax to be exposed. This, and other

**Figure 2.** A biologically-irrelevant adaptation is said to falsify evolution, yet such adaptations exist in nature.
significantly persisting scientific shenanigans that could be mentioned, does not exactly inspire confidence in the premise that science particularly encourages disproof.

**Straw-man Christianity**

The author repeats the claim that what religion one practises is primarily an accident of birth. This is a half-truth. To begin with, isn’t being an atheist also usually an accident of birth? Barring consideration of God’s will (which determines the advantages and disadvantages of every person ever born: Acts 17:26), there is one sobering reality: very many things (such as one’s gender, race, socio-economic status, the capabilities and character of one’s parents, and time in history one lives in) are also accidents of birth. The vast majority of Christians alive today had ancestors that were pagans. In virtually every culture and clime, there have been individuals who have come to the One True God. Finally, being born in a nation with the one true religion is no guarantee of being a faithful practitioner of that religion.

Coyne lumps all the miraculous claims of all religions into one and the same bag. To Coyne, one account of a miracle is as much non-factual as any other claim of a miracle. That is like saying that because some written events are legendary, therefore all written events are legendary.

The author consistently cites only evidence that supports his atheistic contentions. For instance, he claims that scientific experiments have disproved the efficacy of prayer, while ignoring other experiments that at least suggest the efficacy of prayer. Of course, the one who rejects God can always fall back on rationalizations, such as a poorly controlled experiment, the seemingly all-powerful power of suggestion acting on the one praying, etc.

Coyne’s understanding of the evidences for the Christian faith is indefensible. He does not demonstrate even a rudimentary understanding of the evidences for the historicity of the Gospels and Epistles. He engages in dismissive hand-waving, and repeats the trite statement that the Gospels were written some decades after the events—as if this was *ipso facto* supposed to invalidate them (e.g. p. 121). If such reasoning were applied to the factuality of Julius Caesar, described long after his death, it would also surely be disproved. Predictably, he dusts off the so-called contradictions between the Gospels on the Resurrection accounts, but does not tell the reader that these divergences are superficial, are hardly any different from those in different newspaper accounts of the same event today, and are exactly what one would expect to see when comparing independent sources.

Not done yet, Coyne, in dead seriousness, repeats the most ill-informed counter-explanations for the Resurrection of Jesus Christ (p. 123). This includes the charge that the disciples invented the Resurrection, in ‘collaborative storytelling’, as a means of dealing with the cognitive dissonance of seeing their leader die. This was supposed to be comparable to the way that modern cults deal with disconfirming events, such as the failure of the world to end as predicted. Coyne’s facile explanation is just that. If Jesus just died, why did the disciples not deal with the cognitive dissonance of His death through more prosaic, standby explanations—such as their lack of faith, their being found unworthy by God, or God’s ways being mysterious? Conversely, if the human mind is simultaneously so creative and irrational in dealing with cognitive dissonance that it can fabricate an elaborate bodily resurrection, then what can it NOT do? Must the historian worry, for example, that Julius Caesar and his exploits never happened, and were merely the ‘collaborative storytelling’ in response to some kind of event that had caused cognitive dissonance in ancient Rome?

The author repeats the silly argument that certain Christian doctrines were determined by vote (pp. 70–71). In actuality, the Council of Nicaea did not invent the doctrine of the Trinity. Nor did it impose this belief on the church. Coyne fails to mention the fact that the overwhelming majority of votes at Nicaea affirmed the full Deity of Jesus Christ, thus proving the fact that the Trinity had long been pre-existing mainstream Christian doctrine. The Arian heresy had been an upstart movement, and had been unambiguously dealt with. The Trinity had been re-affirmed, and Arianism exposed and condemned. There was nothing that needed to—much less had to—be ‘imposed’ upon the church.

![Figure 3. The Pittdown Man hoax, an amateurish forgery that took only 50 years to unmask, does not exactly inspire confidence that science is fundamentally skeptical of its findings.](image)
Disparaging Christianity and the origins of modern science

Predictably, Coyne repeats the line about early European scientists being Christians solely because almost everyone was a Christian. His logic is self-refuting. If the Christian religion is especially toxic to scientific reasoning, then why did science develop, and persist, of all places, precisely in the one in which confessedly almost everyone was a Christian?

The author boldly asserts that European science does not owe its origins to Christianity. However, he states that “In the end, we don’t know why modern science arose for keeps in Europe between the thirteenth and sixteenth centuries, while arising and then vanishing in China and Islamic countries” (p. 215). Without actually getting into the evidences for the crucial role of Christianity in the foundation of science, let us just analyze Coyne’s logic. It, once again, is self-refuting. If Coyne cannot know why science persisted in Europe, unlike in other places, then how can he so boldly say that Christianity had nothing substantial to do with it?

'Science has good intentions'

Not surprisingly, Coyne glosses over all the evil consequences of Darwinian evolution. He would have us believe that eugenics and racism were simply corruptions of Darwinism brought upon us by racists and xenophobes (p. 219). This is laughably untrue. Racism and eugenics were no add-ons to, or misuses of, Darwinism. They had been given the imprimatur of scientific legitimacy by 19th-century ‘science’, had been part of the very fabric of Darwinism, and had been actively researched and promoted by leading Darwinists, moreover, for many decades after 1859.

Coyne realizes that both religion and science have done bad things, and that one theoretically could blame bad policy makers, rather than religion or science per se, for this. Not to be denied, however, he insists that religion has an inherent propensity for wrong, owing to its dogmatic insistence on knowing the truth. However, the ‘inherent propensity for wrong’ argument can also be applied to science. The scientific-knowledge spirit can easily corrupt to an intellectual hubris, leading to a ‘we know a lot’ or even ‘we know what is best for you’ mentality, sometimes ending in disastrous policies.

Continuing his diatribe against religion, Coyne repeats the idiotic cliché that religion is unique in its ability to make good people do evil things. I beg pardon. How many murderers in the Soviet NKVD had been good people, convinced by an atheist ideology (Communism), that their killing of class enemies was a necessary and noble deed—a favour to human progress?

Coyne also asserts that science, unlike religion, at least strives for correction owing to its self-testing nature, even if it is sometimes mistaken to the point of being harmful. This is a variant of the ‘we have good intentions, so excuse us’ argument. However, this ‘good intentions’ argument can also be applied to religion. When the Inquisition tortured heretics, it did so not because religionists are mean and petty. The Inquisition’s actions were based on the good intention of saving souls and preventing sin from spreading. When the mostly religious authorities limited or abolished the Inquisition, and introduced religious tolerance, it was based on the good intention of not stifling legitimate differences and dissent, and the good intention of not causing the suffering of those who believed differently. Note also, the Spanish Inquisition killed about 2,000 people over three centuries.3 This pales into comparison with the genocidal Holodomor (Голодомор, ‘murder by starvation’), where millions of Ukrainians died in the man-made famine of Stalin’s atheist Communism in 1932–1933.

Failing all else, Coyne insists that science has made dramatic progress, while religion remains static. That premise, of course, depends upon his narrow materialistic definition of progress. In science, progress is measured in terms of discoveries, inventions, and an enhanced standard of living. In the Christian faith, progress is measured in leading successive generations of people to devotion to God.

Conclusions

I personally appreciated Coyne’s book in a way. It enabled me to see afresh the folly of the atheist position and the desperation of its attacks on religious believers.

However, I would not recommend this book to the serious student of science and religion. Coyne says nothing new, much less anything profound. This book is so superficial and repetitive that it eventually becomes tedious to read. It is one shallow tired cliché after another. Coyne repeatedly complains about religious believers accepting things that they cannot see and test, but has no problem in believing in unseen and untested things so long as they fit his atheistic evolutionary preconceptions.

References