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FEATURE

The Relentless Retreat: Kelly James Clark's *Religion and the Sciences of Origins*

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Is there anything more to be said about the conflict between science and religion? Numerous peace efforts have tried to reconcile both parties, but their territorial disputes refuse to settle down. In *Religion and the Sciences of Origins*, philosopher and Christian apologist Kelly James Clark focuses on questions about origins (of life, the universe, and everything), one notable area where the "religious rubber meets the science road" (Clark 2014:7). After sketching the possible models for thinking about science and religion as he sees them (Conflict, Separation, and Integration), Clark discusses a number of episodes in the history of the conflict—the Scientific Revolution, the Galileo affair, the reception of Darwin's theory—and moves on to some miscellaneous topics in the second half: fine-tuning arguments, the effect of religion on society, dualism and the existence of the soul, the foundations of morality, free will, and science/religion in Judaism and Islam. Borrowing the medieval metaphor of the Doctrine of the Two Books, Clark maintains that there is no genuine conflict between science (the Book of Nature) and monotheistic religion (the Book of Scripture). Religious believers need not fear the discoveries of science, he asserts, as these do not jeopardize their faith. The study of either Book can enrich one's understanding of the other. *Religion and the Sciences of Origins* follows an endless spate of books on science and religion, most of them purporting to show that the twain can meet and live in harmony (see, for example, recent works by Alvin Plantinga, Alister McGrath, Michael Ruse, John Haught, and Kenneth Miller). Clark's contribution, which is accessible for a lay audience and requires no special background, continues that theme.

The Conflict Thesis

In this essay, I will focus on Clark's central thesis about the relationship between science and religion: that the conflict view is hugely overblown, a fantasy of militant atheists and other culture warriors, and that both science and religion can co-exist in peaceful harmony, provided they stay on their respective turf.

The root of the conflict view, according to Clark, is the thesis, defended by "New Atheists" such as Richard Dawkins, Jerry Coyne, and Victor Stenger, that God can be regarded as a scientific hypothesis that has failed to garner empirical support, or has even been decisively refuted. Many phenomena that were previously attributed to divine intervention, or so defenders of the conflict view argue, are now understood in terms of perfectly natural processes. For Clark, this view is totally misguided: God is a person, and religious faith is more like belief in the existence of other minds, something that people directly intuit rather than infer from empirical data (readers familiar with Reformed epistemology will recognize Alvin Plantinga's account about "properly basic belief"). Clark's claim that "God

is not a scientific hypothesis," however, plays on an equivocation. To be sure, the God "hypothesis" does not look much like, say, the nebular hypothesis of the formation of the solar system. It did not arise from careful empirical investigation of nature, and religious believers who endorse such beliefs do not do so tentatively, after carefully examining the available evidence. A less polite way of saying this is that religious believers are intransigent and dogmatic. In that sense, indeed, God is not a scientific hypothesis. But all that is irrelevant for the conflict view: belief in a supernatural Creator *amounts* to a scientific hypothesis in the sense that it has testable empirical consequences, is amenable to scientific investigation, and would make a genuine difference for science if true (Fishman 2009). That is precisely the heart of the conflict thesis: religion makes factual claims about reality, and hence encroaches on the domain of science. It is vying for the same explanatory domain, even if it does not remotely look like science. To think that God is "not on the scientific radar" (Clark 2014:6), as Clark does, just because theism did not emerge as a result of the hypothetico-deductive method, is to conflate two very different things.

What about all the different ways in which science has contradicted religious scriptures? That is no problem, according to Clark, because "the Bible is not a textbook of science" and was never meant to be taken literally. Clark, apparently taking the divine origin of the Bible at face value (Clark 2014:77), argues that God had no choice but to stoop down to the intellectual level of his creatures when he chose to reveal himself to them. He had to speak in their own language. After all, if God had simply dictated the true mathematical description of the cosmos (Clark 2014:71), his Chosen People would have been dumbfounded. It is almost too obvious to remark that this is a false dilemma. If I were God, here is how I would start Genesis: "In the beginning the world burst forth from a huge explosion, and the light was so seething hot that nothing could survive." As for the place of the Earth in the universe, surely even illiterate goat herders could understand something like this: "Behold, the Earth under your feet is round like a sphere, and with every turn of the seasons it traces a path round the Sun, in the shape of an outstretched circle. And the Sun is like a burning hot furnace and far away from the earth, but the moon is much closer." (There are several scientifically sanitized versions of Genesis around: see Carver (2013) or Sagan (2006:ch 6) or the film clip "I know more than God" [https://youtu.be/4qymoktf0wY].) At any rate, this makes a lot more sense than most of the stuff from the Book of Revelation. A divine revelation does not need to be stuffed with equations to be *consistent* with the scientific facts.

The most important distortion of science in this book, which is unfortunately also promulgated by high-profile scientific organizations such as the NCSE and the AAAS, is that science is by its very nature restricted to natural causes and explanations, and must remain studiously neutral on questions about the supernatural. God can never *fail* as a scientific hypothesis, or so the doctrine of *methodological naturalism* claims, because he never entered the scientific arena in the first place. He may or may not exist, but science has no say on the matter. I think this is a politically convenient fiction, which does not survive philosophical scrutiny and historical analysis (Edis 1998; Boudry, Blancke et al. 2010; Fishman and Boudry 2013). It has also backfired, because it creates the impression that science has unfairly excluded God (see the "intelligent design" propaganda movie *Expelled*) from serious consideration. The "intelligent design" folks had a field day with that one.

The doctrine of methodological naturalism is just one among several straitjackets into which Clark wants to force science. In his view, science also *assumes* the non-existence of immaterial entities; it rules out personal (agential) explanations from consideration (archaeologists would be surprised); it presupposes the regularity of natural laws; it must favor simple theories over more complex ones; and it is inconceivable without the *a priori* assumption of the intelligibility of nature. But we need not adopt such inviolable methodological strictures from the outset. Science is like Otto Neurath's ship, being built and reconstructed along the way, out in the open sea. Indeed, Clark gets the story exactly backward: for example, why would scientists need to *presuppose* the regularity of nature, instead of adopting it as a working hypothesis that can be checked every time we consult nature (Fishman and Boudry 2013)? Is the preference for simplicity really just a quirk of scientists, an irreducible assumption, or could there be good probabilistic and evidential reasons for it (see for example, Forster and Sober 1994; Fishman and Boudry 2013)? *Pace* Clark, science does not carry an *a priori* bias against personal (agential) explanations for phenomena. Rather, as a result of centuries of scientific investigation, earlier animistic, anthropomorphic, and teleological views have gradually been superseded by more parsimonious, impersonal explanations. Putting the cart before the horse here quickly leads to absurdities. Why, for example, don't we find scientists positing "teeny tiny elves" to account for the behavior of subatomic particles? For Clark, this is because of a scientific "prejudice … against persons as the causes of material reality" and a "value commitment to natural causes" (Clark 2014:18). In other words, if it were not for materialist "prejudice," we could have had little elves reigning over the microscopic realm. (You can see Clark getting uncomfortable with his own conclusion in the remainder of the passage quoted: "Prejudice," he writes, is actually just a form of "prejudgment, which is not always bad, certainly not in the ruling out of tiny elf theory." But why the pejorative "prejudice" then? What kind of reasons would Clark adduce to rule out elves, and why would those reasons not apply to God?)

History of warfare

This book contains many confident assertions that the received knowledge on the clashes between science and religion is completely wrong. Andrew Dickson White's monumental *A History of the Warfare of Science with Theology in Christendom* (1896), which contains literally hundreds of examples of theology forestalling scientific progress, is brushed aside as "deeply flawed" (Clark 2014:24), but Clark never bothers to tell us exactly why. Perhaps we should have a look at one of the most famous episodes in this warfare, which Clark discusses at some length: Galileo's quarrel with the Inquisition. The received story of the scientific hero being persecuted for heresy is dismissed as "nearly completely false" (Clark 2014:46). Why? For starters, according to Clark, because Galileo himself was guilty of "arrogance" and impertinent "sarcasm" in his *Dialogues* (Clark 2014:49), and because he had dared to step on the Pope's toes. Also, his "timing was poor" (Clark 2014:51). Galileo, it should be borne in mind, was foolish enough to live in the aftermath of the Protestant Reformation, at a time when the Catholic Church had grown understandably anxious about dissident views. In short, Clark comes close to condoning the Inquisition and blaming Galileo for his temerity. The Church, you see, was genuinely concerned with the "eternal destiny" of its flock, which it would not allow philosophical "mavericks" like Galileo to jeopardize. "A kinder and gentler Galileo might have succeeded where the actual Galileo failed" (Clark 2014:51). More plausibly, such a gentler soul would have shut up about he-

liocentrism in the first place, as the Inquisition, which had burned the heretic Giordano Bruno at the stake a mere sixteen years previously, was pressuring him to do. In Clark's view, just because a scientist was condemned with heresy by the Holy Inquisition for denying the literal truth of Scripture, and was being threatened with torture in the process, does not mean that there was a conflict between science and religion. It all boiled down to a "lack of scientific evidence" (Clark 2014:52). In Clark's own words: "The conflict, and there surely was one, was more science versus science than science versus religion." From reading Clark, you would almost believe that the Holy Inquisition was an early and exemplary model of academic peer review.

The Doctrine of the Two Books

There is, however, an important complication in the standard story of the conflict between science and religion, which we should keep in mind. Many of the pioneers of the Scientific Revolution, as Clark rightly points out, were devoutly religious men. These scientists reconciled their faith with their investigations of nature by upholding the Doctrine of the Two Books, to which Clark devotes considerable attention. According to this metaphor, famously used by Francis Bacon, Truth can never contradict Truth, so if the Book of Nature seemed to be at odds with Scripture, we should blame our limited understanding of Scripture. But does this show that science and religion can live in harmony? Hardly. Bacon, along with luminaries such as Isaac Newton and Robert Boyle, was confident that investigations of the natural world would leave the basic tenets of the Bible intact. Perhaps some interpretations of specific verses would need to be abandoned, but all that was for the greater glory of God. Little did these devout men expect that their intellectual descendants—modern scientists—eventually were to give up the young age of the Earth, the Flood, the miracle stories, the existence of Adam and Eve, the garden of Eden, the special creation of humans, the virgin birth, the Resurrection of Jesus, and just about every other factual tenet of Christianity. If they had foreseen what the Book of Nature had in store for them, and how it would tear the other Book to shreds, they might have paused before venturing on that road.

With the benefit of hindsight, one can see that the Doctrine of the Two Books foreboded trouble from the very start, because it could only accommodate changes in one direction: from Nature to Scripture, never the other way around. The infallibility of Scripture, while still professed in principle, would eventually be reduced to a paper tiger. In Clark's own defense of the Doctrine of the Two Books (Clark 2014:95–96), the message of Scripture seems to be whatever is left standing after the latest scientific developments, with the remainder demoted to the status of metaphor and allegory. That raises the question: is there a single proposition in the Bible that Clark considers non-negotiable? And if so, on what basis? Perhaps Jesus never existed in the first place. If Adam was just a metaphor, why not his successor, the Second Adam?

The retreat of religion

Whenever scientific knowledge advances, religion is forced to retreat. The current position occupied by many theologians who reject creationism (including "intelligent design") is called *theistic evolutionism*: evolution by natural selection has occurred, but God was somehow keeping evolution on track, for example by fiddling with "random" mutations, conveniently ensuring that such interventions escape his creatures' scientific efforts to de-

tect them. Clark, although it is hard to pin him down, seems to be favorable to this view: "God could ensure … that mutations occur (through natural processes) as needed" (Clark 2014:107). He also toys with various other models for allowing divine creativity even if mutations are "random" in the strong sense of being unpredictable. Never mind that there is not a scintilla of evidence for this directionality (though there *could have been*), or for some sort of "Riverboat Gambler" God behind the scenes (Clark 2014:110).

What remains, then, of the Book of Scripture after Clark's reconciliation with the Book of Nature? Well, the phrase "Let there be light" in Genesis can still be interpreted, with considerable mental gymnastics, as God stooping down to humanity to inform us about Big Bang cosmology. There are also still a number of gaps in the fabric of the cosmos for God to fill up. Take the "fine tuning" arguments that are currently in vogue. The fundamental physical constants in our universe seem to lie within a very narrow range, outside of which the cosmos would not be conducive to the formation of matter and solar systems, let alone be hospitable to intelligent life. Surely this is a sign of God's providence? However, even if we grant that life is viable only within a certain range of physical values, which is a premature conclusion at this point, there are plenty of natural explanations on offer for this appearance of fine-tuning (Carroll 2012). In the multiverse model arising from string theory, for example, the constants of nature vary from one place to the other, and the existence of certain life-conducive regions is a matter of sheer happenstance. Clark is aware of this possibility, and although he spends a whole chapter on fine-tuning arguments for the existence of God, at the same time he is already hedging his bets and anticipating the next retreat. If one of the multiverse models of the cosmos should be borne out, and fine-tuning arguments would go out of the window, this, too, would comport well with theism: "God in his goodness may indeed have created everything—every possible kind of thing in the universe. … The multiverse might be the ultimate expression of divine goodness and creativity" (Clark 2014:205). So either God, in his loving providence, has created one universe carefully tailored for life, or in his infinite profligacy, has created a whole plethora of worlds, the finely tuned and the messed-up ones alike. Either way, praise be unto Him! This "heads I win, tails you lose" approach betrays a desperation to maintain a cherished belief at any cost, regardless of the evidence. Note also that by invoking the fine-tuning argument, Clark is tacitly conceding that evidence *is* in fact relevant to the God question—thereby undermining his claim that God is not a scientific hypothesis.

In science, this kind of reasoning would be met with ridicule, but for theology, being "another way of knowing," different rules seem to apply. Towards the end of his book, Clark discusses one type of multiverse model, in which there is a succession of expanding and contracting universes, with the constants of nature being shuffled every time a collapsing universe turns into a freshly exploding one. Following an argument of Roger Penrose, Clark argues that the second law of thermodynamics (the inexorable rise of entropy in a closed system) would prevent life from arising in such a multiverse. After a few rounds of banging and crunching, after all, the usable energy (with low entropy) of such a multiverse would be depleted, leaving too little time and opportunity for the right physical conditions for life to arise by chance. So that natural explanation of fine-tuning falters as well, according to Clark. But what about the resurrection of the dead, a prospect which he apparently takes seriously (Clark 2014:177–178)? Wouldn't that be the most massive violation of the law of increasing entropy imaginable? Ah, but of course God can do whatever he likes, and he

is hardly accountable to such trifles as the laws of thermodynamics. Presumably he has an inexhaustible supply of usable energy, or infinite time and patience. As a mere mortal, my patience with this kind of apologetic nonsense is limited.

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