New Blackfriars
DOI:10.1111/j.1741-2005.2012.01514.x

Dawkins is Dead: Long Live Evolution!

Conor Cunningham

Abstract

What the late Stephen J Gould baptized ultra-Darwinism is anti-evolutionary. In so being, it leads to the undermining of science, rationality, and, lastly, to ethical nihilism, wherein any notion of humanism is impossible, and this for one simple reason – there is now no such thing as a human. In addition, we argue that ultra-Darwinism is a progeny of crass philosophical dualism, and this leads it to despise matter and the material world, even though, paradoxically, it espouses materialism. We conclude that the theory of evolution invalidates ultra-Darwinism.

Keywords

Ultra-Darwinism, Richard Dawkins, selfish genes, existence problem, arrival of the fittest, materialism, and naturalism

Exemplifying Descartes' dichotomy of *res cogitans*/*res extensa*, ultra-Darwinism rests on a number of foundational dualisms, each of which is misleading and anti-evolutionary. These foundational dualisms include: hardware/software, information/matter, sema/soma, replicators/vehicles, immortal/mortal, selfishness/altruism, and, lastly, genotype/phenotype. A guiding figure in our analysis, however brief, will be that of the Neanderthal, for it is the Neanderthal that best characterizes the secularism prevalent in much philosophy, and in the metaphysics extrapolated from a number of scientific theories, here most especially, ultra-Darwinism. Incidentally, the term Neanderthal was coined by William King Professor of Geology at Queen's College in Galway.

A Neanderthal is a form of hominoid, one that was less evolved than *Homo sapiens*, insofar as it lacked our creative intelligence. The name Neanderthal derives from the 17th century theologian Joachim Neander, who was removed from his theological teaching position for refusing to take Holy Communion. Neander used to take walks in a local valley and it became known as Neander's valley, and it was there that fossils were subsequently discovered. There is something rather telling about this coincidence, for as we shall see what is

© 2015 The Dominican Council. Published by John Wiley & Sons Ltd. 2015, 9600 Garsington Road, Oxford OX4 2DQ, UK, and 350 Main Street, Malden MA 02148, USA

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

in keeping with all Gnostic Paganism (most prominent in secular materialism) is an analogous refusal that material elements can give rise to real blood and a true body, or real objects. Under the cosh of this logic, the elements remain bread and wine, or mere elements, but more importantly, the bread and wine are denied their own validity, as they too are reduced or rendered epiphenomenal, mere shadows cast by the 'solidity' of matter (whatever that may be). In this way, to be a Neanderthal is precisely to refuse the fruits of evolution, that is, it is to deny all height because it begins from the ground, so to speak, which is, as we shall see, pre-Darwinian, for to remain a Neanderthal is precisely to reject evolution, and this is what ultra-Darwinists do.

Ultra-Darwinists, otherwise here known as 'Darwinian fundamentalists', in following the pattern of the Neanderthal, propagate what we might call a Zwinglian metaphysics. In a similar fashion, materialists (at least crude ones, who, to be honest, tend to stack the galleries) do the same, insofar as one of their main rhetorical moves is to remind us in as severe a fashion as can be mustered that we are, yes, material. Their extended fingers pointing triumphantly to our organs, to our metabolic systems, and more often than not, to our brains, doing so with a palpable sense of 'aha'! Thus we stand accused. At least that is how their story goes. Once more, the pre-Darwinian, not to say theological heterodoxy of such logic is evident. But of course, for the theologian (and we are sure many others), this all seems to be stuff and nonsense. After all, according to Christianity, a beaten, mutilated, and executed first-century Palestinian Jew, left hanging from a tree outside the city amongst all its refuse, is God incarnate. And of course, before the execution, the Logos passed through the vagina of a woman, to be born amidst the sweat, blood, and excrement of mammalian birth. He walked amongst us, defecating, eating food, sweating just like the rest of us. And that's just orthodoxy. Moreover, any such accusation of being 'merely material' is the equivalent of saying a theoretical physicist is made from carbon, and so being done with their thought: think Newton, Einstein, Bohr, and so on. An example of this fallacious reasoning goes something like this: religious experience manifests a localized and repeatable neurological pattern ergo religion is not objective. But of course, they do not seek to extend such analysis, if that is indeed what it is, to the realm of science. Imagine Einstein thinking about $E = MC2$, and lo and behold, accompanying such cognitive activity is, yes, you've guessed it, a localized and repeatable neurological pattern, do we think then, that $E = MC2$ is non-veridical. There are so many elephants in the room here, that we shall take leave of this veritable zoo. Before doing so, we should recall that theology teaches us to 'love our neighbor', and that includes both our physicality and our animality, and even, yes, our brain.

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

I read recently in the newspaper that Richard Dawkins has funded a children's summer camp, one that will encourage atheism. The old campfire song of 'Kum-bi-ya my Lord' is to be replaced with John Lennon's secular hymn 'Imagine'. In that song we are asked to imagine a world without religion – it's easy if you try, no heaven, above us only sky, and so on. If we would only embrace this rational account of the world then most of our problems would vanish, all the religious superstition and mumbo jumbo, all that theological guff. And in its place, we would behold a pristine nature, overflowing with self-evident sensibleness. Not at all, quite the reverse! Indeed, it is here that we can locate the cultural confusion that has bedeviled the debate between science and religion, between the natural and the supernatural. For we have it seems, articulated this debate in a wholly question begging manner, and I must say that both sides are guilty of the same crime. On the one hand, we have theologians, and religious people speaking about their faith in manner that leads them to be guilty of what I would term *anonymous atheism*, to corrupt a phrase of Karl Rahner. For they have indeed bought into the idea that the supernatural is something discontinuous or unrelated to the natural, it is, in short, something extra, even if, to them, it is something extra special. Once again, this is reminiscent of Descartes' division of reality into mind and extended matter, a division that arguably accommodates the eradication of the former, and the veneration of the latter – in other words, the division allows for the eradication of mind. Doing so because it provides a certain credulity to the just-so story named materialism, with its various foundational myths, nay, fictions, especially something called 'matter', or the merely material, which is on par with the unicorn, and at least the former is a mental composition of actual entities. But of course, Hegel had already pointed to the vacuous nature of materialism, arguing that the word 'matter' remains an ideal unless you pick out something material, but for there to be *something* material, materialism cannot be true. In this way, materialism appears to preclude identity.

Religious people have bought into the idea that faith is something of a lifestyle choice, like marathon running, or Pilates (or mere individual salvation, understood as a 'ticket' that gets us somewhere else, namely, Heaven – a bit like that *very special* holiday we have always been saving for). And here the new atheist is in complete agreement, religion is indeed something extra, the supernatural is therefore over and above the purely natural, but for them, in the name of economy, Ockham's razor, if you will, we can just ignore it, setting it adrift, to the point were it becomes irrelevant. For we can indeed imagine its absence, and thus can get along without it very well, thank you very much, why not, it doesn't seem to do very much. The banishment of God, something enabled by the strict opposition of the

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

natural and the supernatural, has come at an enormous cost. We have ended up in world, a supposedly natural world, which is devoid of that which we presume to be natural: people, free will, 1st person language, colour, ethics, organisms, and indeed life itself. Talk about cutting you face off to spite your nose! Now you may think I'm over egging the ontological omelet a tad. But here is a taster sample: As one Nobel winning biologist put it: '*Biology no longer studies life*.' (Jacob, 1973). And as a philosopher of science tells us: 'if *we ask the question when did human life begin? The answer is never*.' (Ghiselin, 1997). Here are four more philosophers: '*Could it turn out that no one has ever believed anything.'* (Churchland, in Baker, 1988) '*No such thing as selves exist in the world: Nobody ever was or had a self.'* (Metzinger, 2003) *'Ethics is an illusion fobbed off on us by our genes.'* (Ruse and Wilson, 1983). *'Biological fitness is a function of reproductive advantages rather than a philosophical insight. Thus if we benefit biologically by being deluded about the true nature of formal thought, then so be it. A tendency to objectify is the price of reproductive success.'* (Ruse, 1986). Rather tellingly, Quine once compared the simple belief in objects to belief in the gods of Homer (Quine, 1951). Take the example of the Twin Towers. Quite simply with the ontology available to materialism, and its successor theory, naturalism (and its rasping offspring, ultra-Darwinism) there are no such things as towers or people, for all such fictions are cast into the flux of pure phylogeny (Baker, 2007). But surely, this means that ontological naturalism is a more heinous ideology than all the diseases, wars, crimes, and disasters combined, because, in short, it forces us to be Holocaust deniers. How, if matter is all there is, can we discern real difference *between matter thus and now matter so*, even if, in our folk language, that change might be termed (parochially and indeed colloquially) as rape, murder, cancer, and so on. This is, therefore, the very liquidation of existence.

Now, Dawkins may just tell us to pull our socks up, stiff upper lip and all that, as we just have to accept that *there is such a thing as just being plain wrong.* Right on! And we have it seems been indeed wrong, presuming that people, and so on, exist. But the problem here is that there no longer seems to be anything *as being plain right!* As Paul Churchland, one of the philosophers quoted a minute ago, admits, in light of a universalised Darwinism truth is epiphenomenal -like some shadow cast by the solid stone of evolutionary survival. As many philosophers, atheist ones, I might add, have noted (for instance, Fodor, Nagel, and Stroud), there is a complete disconnect between truth and survival in Darwinism, whilst the normative, indeed the rational is a wine beyond the purse of naturalism's ontology, not to mention taste. In short, truth is evacuated of all content as it becomes wedded to function, and it is only the function that matters (Spaemann, 1985). Take the example of congealing identity,

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

something religion is supposed to do. But of course, National Socialism is as equal a candidate for this as the Decalogue, and indeed anything is, for success is wholly retrospective, and indifferent, and don't let anyone tell you otherwise.

There we are, at Dawkins summer campfire, singing Lennon's song, but we, with our stiff upper lip, have embraced our situation, and have altered the lyrics: Imagine there's no people, it's easy if you try, no free will within us, nor life, or death, ethics, or reason, arts or sciences. Wasn't it one of Darwin's most avid supporters, E. O. Wilson who told us that evolution was the best myth we have. It seems true to say, then that the truth of evolution, which I don't doubt for a moment, when uttered from within the camp of ultra-Darwinism seems risible, for any such bid for veracity is analogous to the proverbial drunk man on a moving train who appears to walk straighter than his fellow passengers. To repeat, all truth, or that which happens to be successful is purely accidental.

Echoing W. B. Yeats, the centre cannot hold for ontological naturalism, likewise for a universalized Darwinism. So it seems all we are left with what amounts to a promissory materialism, a presumptive materialism, or indeed a materialism of the gaps (Popper, 1977, van Fraassen, 2002, and Wallace, 2000). Like ghosts of philosophy past, we are haunted by what van Fraassen calls the spirit of materialism (van Fraassen, 2002). This is maybe somewhat analogous to the idea of fashion: it keeps changing precisely because nothing is truly fashionable, just as there is nothing that is intrinsically true. Naturalism and materialism are, therefore, mere placeholders for the hope that there is no God. And don't take my word for it. Richard Lewontin offers us this confession: 'It is not that the methods and institutions of science somehow compel us to accept materialist explanation of the world, but on the contrary, that we are forced by adherence to materialist causes to create an apparatus of investigation that produces materialist explanations. Moreover, that materialism is absolute.' (Quoted in Fanu, 2009). The shifting sands of materialism and its strained efforts belie hollowness, one that Nietzsche would recommend we expose with a hammer, gently tapping the sides of this modern idol, being greeted by a telling sound. This is the intractable *je ne sais quoi* of materialism. So there seems to be two choices. On the one hand, we can embrace restrictive naturalism; the no-nonsense, hard-nosed stance that accepts the limits of naturalistic explanation no matter the consequences, even if they include incoherence, rabid scepticism, and the undermining of science, which is, in the end, the undermining of naturalism as an intellectual position, so too evolution. On the other hand, we can follow Stroud who recommends a much more open form of naturalism but points out that we might just as well call it open-mindedness and therefore drop the otiose, or maybe even distracting, tag of 'naturalism', because

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

in the end it is just dogma, in the pejorative sense (Stroud, 2004). But surely, we can advocate an innocent methodological naturalism? The problem here is that it is difficult, if not intractable, keeping naturalism methodological, because in a certain sense the methodology implies ontology and vice versa. What needs to be done is a collapse of the divorce between what people say and how people live (Cunningham 2010). For lives are lived in a manner that is replete with the signs and goods of transcendence yet they are denied by the fashionable, willful philosophies espoused. So if we were tempted to adopt the vulgar tactics of the new atheists, and pay for slogans to be put on London buses, we could try this one: There's no God, so no joy or life, no objects, no people, no organisms, therefore no evolution, for *something* has to evolve, after all.

The seriousness of this pathology (which we can name scientism) is brought to our attention by borrowing some words of Dawkins, but changing a couple of them. 'It is fashionable to wax apocalyptic about the threat to humanity posed by the AIDS virus, "mad cow" disease, and many others, but I think the case can be made that *scientism* is one of the world's greatest evils, comparable to the smallpox virus but harder to eradicate. *Scientism*, being a belief that isn't based on evidence, is the principle vice of any militant atheism.' We are of course substituting the word 'scientism' for 'religion.' Now, such scientism (which we can take as an umbrella term for both naturalism and ultra-Darwinism) appears to have been accommodated by an alteration in our intellectual consciousness. And this change is duly noted by Joseph Ratzinger: 'The separation of physics from metaphysics achieved by Christian thinking is being steadily cancelled. Everything is to become "physics" again.' (Ratzinger, 2004). This unfortunate turn, to say the least, can be seen in the words attributed to Ernest Rutherford, 'There is only physics, all else is stamp collecting.' One major consequence of this is that science as a discipline becomes less rational, more reductive, and so more nihilistic, undermining itself in the process.

Did Darwin Kill God? The answer is *Yes*! Yes Darwin did kill God. But like Nietzsche who of course famously informed us that God was dead and that we had killed him, the God that was discovered to be lifeless was always so, in other words that God was always dead, and for the simple reason that this god was in fact an idol. Interestingly, Darwin, unconsciously no doubt, anticipated Nietzsche, for he too killed an idol: the god of the gaps, the god of the intelligent design, the god of creationists. In short, the god of William Paley (no one of course likes to pay attention to the fact that David Hume had already done so, and before Darwinism, and therefore without any talk of evolution). The point to be grasped is that creationists, advocates of intelligent design (which is, we should hasten to point out, always guilty of unintelligent theology) among others, are in fact heretics, if

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

I may put it so, that is, they represent a heterodox understanding of the Christian faith, a lack of orthodoxy that is very usefully brought to our attention by Darwin. But another murder has been committed, and the perpetrators are none other than the crazy eyed Darwinian fundamentalists, and what have they murdered? Quite simply, but shockingly, evolution: ultra-Darwinists have killed Darwin's child, and they have done so because they are in fact lapsed religious fundamentalists, who are, by default, advocates of special creation, for like the Neanderthal they simply refuse to accept that anything can pass through the birth canal of evolution and be real. The ultra-Darwinist, therefore, resembles the fundamentalist who goes to Bible College, only to discover that Moses may not indeed have been the author of the Pentateuch (which should not come as that much of a shock, since it contains an account of his death!) and subsequently loses faith. But he remains a fundamentalist by default, insofar as he has not thought to question the original model of truth that governs his approach to existence.

There is an old saying that offers sage advice: *the theology that marries the science of today will be the widow of tomorrow.* And that seems to be correct; yes, it is good and constructive for theology to engage with science but it cannot act as its foundation, so to speak. But this also applies to atheism: *the atheism that marries the science of today will be the widow of tomorrow*. Even Dawkins admits as much, in relation to evolution, 'Darwin may have been triumphant at the end of the twentieth century, but we must acknowledge the possibility that new facts may come to light which will force our successors of the twenty-first century to abandon Darwinism or modify *it beyond recognition*' (Dawkins, 2003). But if that's the case, his use of a highly selective and inherently provisional interpretation of Darwinism as a vehicle for his own brand of atheism is wholly illegitimate, to say the least, and an instance of intellectual dishonesty, to say the most. Indeed, I would speculate that one of the motivating factors for writing *The God Delusion* was the realization that evolution would no longer, if it ever did, accommodate his atheism. Is this not an eminent example of what we might call 'the devil of the gaps?'

Dawkins tells us that 'the human psyche has two great sicknesses: the urge to carry vendetta across generations, and the tendency to fasten group labels on people rather than see them as individuals' (Dawkins, 2003). He then goes on to attribute these great sicknesses to Abrahamic religion. But this is exactly what his theory of the selfish gene perpetrates: the identity of any organism is denied validity, insofar as it is ephemeral, for only the genes are real. As a result, the organism is but a cloud or a swarm of genes, genes that have carried their own selfish vendettas across many generations. But alas, these mad fundamentalist genes do not exist. Notably, it is not the

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

opponents of Darwinism who argue this but rather geneticists, molecular biologists, and so on, for these researchers have dethroned the gene, that would-be atom of biology, and allocated it a rather more humble yet significant role. Today in what is now post-genomic biology, the gene is extremely useful, but it is not in truth a fully identifiable entity, for not only are its boundaries hazy, which is to say, it is not discrete, and, moreover, but any noticeable effects a gene may have are highly variable insofar as the whole process is enormously dynamic. For instance, many genes are *polyphenic* (in other words, many physical traits, or phenotypes arising from one genotype), and most physical traits are *polygenic* (resulting from more than one gene). Consequently, the relation between genotype and phenotype is utterly heterogeneous. Indeed, one need only point to what has been referred to as the G-value and C-Value Paradoxes to understand the dynamism and complexity of the molecular world. These paradoxes simply alert us to the seemingly counterintuitive situation wherein there is no clear correlation between the number of genes and organismic complexity. We probably all suffer the impression that a whale has more genes than a carrot or a mushroom, just as a mountain has more atoms than a pebble. Well, it might be true when speaking about atoms but, as said, the gene is no atom. For example, the mustard weed (*Arabidopsis thaliana*) has 26,000 genes, that is, it has more genes than a human, likewise the *pinot noir* grape, whilst certain types of rice have twice as many. Of course, the paradoxical element is subjective or, better, historical, insofar as we thought that the amount of DNA correlated to biological complexity—after all, DNA was supposedly 'King'. But if we leave that apparently naïve (or indeed willful) idea behind and move into a post-genomic world, a world bereft of 'selfish genes' and the like, then the paradox dissolves or, at the most, becomes an exciting call to research. The take-home message here is that we must abandon the image of the gene as an isolated, frigid virgin that only indulges incestuous self-replication and instead embrace the *promiscuous gene*, for it seems to engage in countless relations and liaisons, doing so in many regions and in a variety of ways. But the gene is not only promiscuous but a 'bastard'. Its parentage is desperately difficult to establish, as it emerges from many wombs, and thus its identity is underdetermined.

Just as selfish genes do not exist (or are only of a secondary order), selfishness does not exist either. It is only a 'spandrel' – an architectural by-product that one might mistakenly interpret to be deliberate. Put another way, any selfishness there is, is derivative, and not originary, whilst cooperation is primary, and don't take my word for it. All organisms, including us, are the products of such profound cooperation, for we are in fact composed of past entities that

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

have surrendered their individuality (thus suppressing selfishness) and entered into a new dispensation, to the point that their past identity fades from all memory, and is remembered only when catastrophic betrayal occurs, so to speak. A classic example is that of cancer, which abandons the individual of which it is a part and strikes out on its own, like a burglar that betrays the society into which it was born and raised, and of which it is a part. The crucial point to be made is that if selfishness were originary evolution would never have occurred – true selfishness would consist in an absence of evolution – therefore *survival would not survive*, instead selfishness would remain in the swamp of its birth and not bother moving, so to speak. But of course, any such birth would not occur, for that would require a prior act of cooperation. To put it in Freudian terms: the only true instinct of a would-be selfish replicator would be *Thanatos* (the death instinct) because self-identity, with its precarious, finite nature, involves a central ingredient of altruism. This may seem counterintuitive, but it is patently obvious. Persistence is grounded in endless exchange, most evident in our metabolisms. We are therefore the product of *fundamental reciprocity*. In this way, the entire biological world is precisely the opposite of selfishness, which is not to say that selfishness is not present and important but that from the very fact that we can understand selfishness, we are implicitly entertaining its secondary status. Put another way, there has to be something there to be selfish, but its existence precedes selfishness, because its coming into being is an act of gratuity, only after which is selfishness possible. Biologists refer to this as the *existence problem*, which we can think of as the *arrival of the fittest*, which then accommodates the *survival of the fittest*. We can think of it this way. Evolution consists in both a theatre and a play, the play is the drama of survival (the flux of phylogeny), whilst the theatre, the structured environment is the very possibility of there being a play, and that possibility, again, precedes selfishness and questions of survival as it is the gift of that very possibility. Crucially, though the existence problem and the theatre, so to speak, do not reside in the primordial past, but do, as it were, accompany evolution continually, thus making possible every new exciting level of evolution and emergence. Doing so right up to the point that an animal came along that was able to write the *Origin of Species*, the Bible, and of course *Mein Kampf*. This is the drama and risk of existence that has emerged from the womb of evolution, for there is now real blood, bodies, truth, and therefore ethics. The Zwinglian metaphysics of Neanderthals such as Dawkins must be left behind. Let us ask once again – Did Darwin Kill God? No. But evolution did kill ultra-Darwinism, that is, if it ever really existed.

Dawkins is dead. Long live evolution!

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press

Bibliography

Baker, L. R. (2007). *The metaphysics of everyday life: An essay in practical realism*. Cambridge: Cambridge University Press.

Cunningham, C. (2010). *Darwin's pious idea: Why ultra-Darwinists and creationists both got it wrong*. Grand Rapids, Illinois: Wm B. Eerdmans.

Dawkins, Richard, *A Devil's Chaplain: Selected Essays by Richard Dawkins*. London: Weidenfield and Nicholson, 2003.

Fanu, James Le. *Why Us?: How Science Rediscovered the Mystery of Ourselves*. New York: Pantheon Books, 2009.

Fodor, J. (1998). *In critical condition: Polemical essays on cognitive science and the philosophy of mind*. Cambridge, MA: MIT Press.

Ghiselin, M. (1997). *Metaphysics and the origin of species*. New York: State University of New York Press.

François Jacob, *The Logic of Life: A History of Heredity*, trans. Betty Spillman (New York: Pantheon, 1973).

Metzinger, T. (2003). *Being no one: The self-model theory of subjectivity*. Cambridge, MA: MIT Press.

Nagel, T. (2003). *The last word*. Oxford: Oxford University Press. Pabst, A. (2010). *Metaphysics: The creation of hierarchy*. Grand Rapids, MI: Eerdmans

Popper, Karl, and Eccles, J C, *The Self and Its Brain: An Argument for Interactionism*. Berlin: Springer, 1977.

Quine, W V "Two Dogmas of Empiricism," in *From a Logical Point of View: Nine Logico-Philosophical Essays* (New York: Harper and Row, 1951).

Ratzinger, Joseph, *Truth and Tolerance: Christian Belief and World Religions* (San Francisco, CA: Ignatius Press, 2004), p. 178.

Ruse, M. (1986). *Taking Darwin seriously: A naturalistic approach to philosophy*. Oxford: Blackwell.

Ruse, M. & Wilson, E.O. (1993). The evolution of ethics. In J.E. Hutchinson (Ed.), *Religion and the Natural Sciences: The Range of Engagement* (pp. 308–12). San Diego, CA: Harcourt Brace.

Spaemann, R. (1985). 'Funktionale religionsbegründung und religion'. In P. Koslowski (Ed.), *Die religiöse Dimension der Gesellschaft* (pp. 9–29). Tübingen, Mohr Siebeck.

Stroud, B. (2004). The charm of naturalism. In M. De Caro and D. Macarthur (Eds.), *Naturalism in Question* (pp. 21–35). Cambridge, MA: Harvard University Press.

van Fraassen, Bas C. *The Empirical Stance*. New Haven, CT: Yale University Press, 2002.

Wallace, B. Alan. *The Taboo of Subjectivity: Toward a New Science of Consciousness*. Oxford: Oxford University Press, 2000.

Conor Cunningham
University Park Nottingham
NG7 2RD United Kingdom

conor.cunningham@nottingham.ac.uk

© 2015 The Dominican Council

https://doi.org/10.1111/j.1741-2005.2012.01514.x Published online by Cambridge University Press