

Beyond Belief: The Modern Denial of Irrational Thought

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I do not know, dear reader, what your beliefs may be, but whatever they may be, you must concede that nine-tenths of the beliefs of nine tenths of mankind are totally irrational.

—Bertrand Russell from *Is There A God?*

Reason is, and ought to be the slave of the passions, and can never pretend to any other office than to serve and obey them.

—David Hume *Treatise of Human Nature*

FAITH IN OUR FELLOW CITIZENS

As citizens, we are all a part of something larger than ourselves. Through the division of labour and responsibility, society as a whole is able to provide for its citizens a quality, quantity, and variety of goods and services that no individual would be able to provide for him/herself. We each play a role in this reciprocal process, and must have *faith* in one another to execute his or her duties in such a way that it does not interfere with the execution of our own. To oversimplify matters: It is only because of the reliable efforts of the butcher, the other divisions of labour that further aid society in one way or another. In this way, the perpetuation of society itself is contingent on having faith

in our fellow citizens to produce goods that are safe for our consumption and beneficial to our existence. Again, to oversimplify: If each loaf of bread we bought had to be critically evaluated for thorough baking, the advantages of this division of labour would evaporate, and each person would be well advised to abandon their specialized labours and bake their own bread.

Such is also the case with scientists and the fruits of their labours. Just as half-baked bread causes problems for the smooth functioning of society, so too do half-baked scientific claims. When a scientist makes a specific claim, we generally trust in their judgement given their expert knowledge of the background information and variables involved. Even scientists themselves must trust other scientists with greater knowledge in a specific area outside of their own. For example, all physicists who drive are at the mercy of the chemist who oversaw the making of their particular batch of tires, who might in turn be at the mercy of the biologist who oversaw the genetic engineering efforts for the particular batch of corn that will appear on their dinner table. The point here is not to raise concerns about the safety of living within such a system of reciprocity, but rather to remind us that as citizens, we all have a

duty to each other to produce cultural goods and services (both literally and metaphorically) that are to the best of our knowledge, safe for our consumption.

In the last year and a half, several fresh loaves of metaphorical bread have been baked for us on the topic of science and religion. Atheistic scientists such as Richard Dawkins and Sam Harris have each produced book length treatments on religion, and the dangers of such belief systems being the sole, or at least primary cause of human violence in modern times. These authors contend that belief in God, or other supernatural agents, is not only false from a scientific point of view, but is in fact dangerous because it leads to abuse, violence, and oppression. They suggest that the human capacity for reason and the scientific method ought to be employed to rid the world of all forms of belief without evidence. Harris, one of the more self admittedly strident “new atheists” encapsulates many of these assertions in his 2005 book *The End of Faith*. He notes:

Our technical advances in the art of war have finally rendered our religious differences—and hence our religious beliefs—antithetical to our survival. We can no longer ignore the fact that billions of our neighbours believe in the metaphysics of martyrdom, or in the literal truth of the book of Revelation, or any of the other fantastical notions that have lurked in the minds of the faithful for millennia—because our neighbours are now armed with chemical, biological and nuclear weapons. There is no doubt that these developments mark the terminal phase of our credulity. Words like “God” and “Allah” must go the way of “Apollo” and “Baal,” or they will unmake our world. (2005, pp. 13–14)

Where atheistic sentiments of the past seem to concentrate chiefly on the idea that there is very little evidence for the existence of God, the new atheism has quite a bit more to say. Where Bertrand Russell (1997) invited readers to consider the logical difficulty in proving the negative of a proposition (such as proving

that a teapot does *not* orbit the sun, or analogously, that God does *not* exist) in 1952, in 2005 Sam Harris invites us to envisage the horrors of suicide bombings and nuclear war spurred on by irrational belief in supernatural agents. In this sense, the new atheism movement can be considered militant. Dawkins and faith; a world within which every proposition is supported by empirical evidence, and each belief is backed by scientific investigation.

However, it is not only the suicide bombers and the fundamentalist war mongers who the new atheists oppose. They claim that religious moderation is as much to blame for these atrocities as fundamentalism itself inasmuch as it acts as a gateway through which extremism is allowed to march. Dawkins notes in his 2006 book, *The God Delusion*:

As long as we accept the principle that religious faith must be respected simply because it is religious faith, it is hard to withhold the respect from the faith of Osama bin Laden and the suicide bombers. The alternative, one so transparent that it should need no urging, is to abandon the principle of automatic respect for religious faith. This is one reason why I do everything in my power to warn people against faith itself, not just against so called “extremist faith.” The teachings of “moderate” religion, though not extremist in themselves, are an open invitation to extremism. (Dawkins, 2006 p. 306)

What are we to make of the claims of this new brand of militant atheism? It seems evident that, as citizens, each of us ought to have some opinion on this matter, as the future of ourselves and our society is purported to be contingent on our attitudes towards religious belief, and religious believers. Are religious beliefs really “antithetical to our survival”? If we tolerate faith in moderation, are we then obligated to tolerate faith in its extreme form? Should we have *faith* in the assertions of Dawkins and Harris regarding God and religion simply because they are scientists? Have they produced cultural items that are safe for our

consumption? I will advocate the view that although the new atheists are technically correct in their assertions that the evidence for the existence of god is reasonable thought subverts their ultimate goal in dealing with the phenomenon of religion; in the face the basic irrationality of evolved human thought, it is inherently irrational to merely insist that all thought conform to rational and scientific standards. To complete the analogy offered earlier, the intellectual products these authors are offering us, I will argue, is half-baked. This is not to say that the works of Dawkins or Harris are not well thought out, but rather that they have gotten only half of the story correct. In fleshing out this view of faith and reason, I will devote a section to each of what I consider to be the four main claims of the new atheist movement (see Table 1).

My aim here is not to discredit the work of the new atheists in general, but rather to put an intellectual magnifying glass over some of their more specific prescriptions in an effort to distinguish between scientific facts and scientists’ new atheists to help explain the basic tenets of evolutionary theory. To clarify, it is their prescriptions that are suspect: their scientific descriptions of the world are second to none. Essentially there are certain matters that science is able to answer, and there are other matters that science cannot ever hope to answer. Amidst the claims of the new atheism, it is crucial that citizens understand what is being challenged by science, and more importantly, what is not. Over the next four sections, I hope to provide a guide in this regard.

DOES GOD EXIST?

Any section headed by a title such as this one had better live up to its namesake. The short answer from the atheist perspective is a resounding (and hopefully obvious) “no.” Indeed, a negative answer to this question is the defining characteristic atheism itself. But what makes these atheists so certain that there

Table 1—The Main Claims of the New Atheism Movement

1	God does not exist. (Or more correctly stated: the evidence for the existence of god is so exceptionally weak that one would be foolish to <i>believe</i> otherwise.)
2	Alternatively, supernatural thought (religious thought) is a natural phenomenon, i.e., it arises via natural processes, and therefore requires no involvement from supernatural agents.
3	Faith, defined as belief without evidence, is irrational and ought to be avoided.
4	Furthermore, irrational belief in supernatural agents (even in moderation) is the cause of much of the violence inherent in the world today.

is no God or any other supernatural entities? If they are so insistent that every claim be supported by evidence, what evidence is there for the nonexistence of god, or any other supernatural entity?

The basic notion underlying the new atheists’ lack of faith (or, any atheist for that matter) is the not that there is an abundance of evidence for the nonexistence of any given supernatural entity, but rather that there is a marked poverty of empirically verifiable evidence *for* the existence of any such supernatural entity. In this sense, the burden of proof is shifted from the skeptic atheist, to the devout believer to produce evidence for the existence of any posited God or deity. As Bertrand Russell (1997) noted in the mid twentieth century, it is nearly impossible to prove a negative. His classic example was the conundrum of disproving the existence of a teapot orbiting the sun between earth and mars. Given the vastness of the space in which the supposed teapot exists, it would be near impossible to prove that such a celestial teapot did not exist (especially with the technology available in his day!). Russell commented that this fact, combined with the lack of empirical evidence for the existence of that teapot gives us good reason to be “teapot agnostics.” That is, we have good reason to admit that we do not have the ability to know whether or not such an entity exists. However, agnosticism (admission of lack of knowledge) and atheism (*believing* in the nonexistence) are two very different positions. How can one be an atheist without taking the “leap of faith” (i.e., believing *beyond* the evidence) that they so despise about

the religiously devout? Russell noted that even though the technical existence of the teapot is unknown, we can live our lives as if it did not exist, making us pragmatic “a-teapotists.”

The new atheists pursue this line of reasoning with what some critics have called a fundamentalist fervour. In addition to highlighting the lack of scientific evidence for the existence of god, Dawkins points out that there is not even a need to posit his existence to explain the astounding complexity of the natural world in the first place:

A designer God cannot be used to explain organized complexity because any God capable of designing anything would have to be complex enough to demand the same kind of explanation in his own right. God presents an infinite regress from which he cannot help us to escape. This argument . . . demonstrates that God, though not technically disprovable is very improbable indeed. (Dawkins, 2006, p. 109)

So, although the idea that Dawkins means to convey is that God does not exist, he remains true to his scientific principles in stating that the probability of the existence of god is very, very low. This sentiment is reflected in the title of his fourth chapter in *The God Delusion*: “Why There Almost Certainly Is No God.” In addition to extending the arguments of Russell and deflecting some of the more specific arguments for the existence of God, Dawkins also provides succinct anecdotes for convincing believers in the irrationality of their most cherished beliefs:

I have found it an amusing strategy, when asked whether I am an atheist, to point out that the questioner is also an atheist when considering Zeus, Apollo, Amon Ra, Mithras, Baal, Thor, Wotan, the Golden Calf and the Flying Spaghetti Monster. I just go one god further. (2006, p. 53)

This is where the new atheists thrive. Dawkins in particular possesses an intellectually barbed wit that is so supremely effective in illuminat-

ing the matter in such a way that his conclusion is not only supported, but is also memorable to the average reader. Statements such as the above indeed seem to be crafted to elicit a dissonance within believers that can only be resolved by rejecting their supernatural beliefs outright, or by ignoring the problem altogether. Another instance of this tactic is to highlight the discrepancy between the beliefs of various religions, and correctly note that *at least* one of them must be incorrect, if not both. For example, even if it were the case that our world was divinely created, it cannot be factually true that a Christian God created the world in six days, *and*, that a pair of Hindu gods created the same world. One, if not both, of these accounts is technically false. Implied here is the utter shame involved in devoting one’s entire life and death (and perhaps even one’s afterlife) to a belief system that simply is not true. In response to these issues agnostics and pragmatic atheists reject supernatural thought altogether. Why bother with the intricacies of one religious belief system when there are an infinite many others that just as firmly, or even militantly believe otherwise?

In this regard, I believe the new atheists have done an admirable job of pointing to the irrationality of human thought and making memorable for a new generation of thinkers the ways in which it is. However, a larger question now arises in light of this exposition: If our supernatural thoughts are not attributable to the literal existence of any given god, why do they persist? Even if we accept that belief in the supernatural is irrational, and that claims about the existence of such entities are technically false, why do we still believe, and want to believe? What is it about religious thought that applies ubiquitously to all cultures of the world? It is these questions that we turn to next.

**S U P E R N A T U R A L T H O U G H T A S
A N A T U R A L P H E N O M E N O N**

In 1802, William Paley was involved in natural theology, an intellectual movement, which sought to find the roots of an argument for the existence of God in nature itself. While walking across a heath and reflecting on the nature of design, he compared a rock that he stumbled upon to his pocket watch and made the correct observation that while the rock required no designer, the pocket watch certainly did. He then compared the design of the pocket watch to the design of humans and proclaimed that because the pocket watch required an intelligent designer, so too did humans:

There cannot be design without a designer; contrivance without a contriver; order without choice; arrangement without anything capable of arranging; subserviency and relation to a purpose, without that which could intend a purpose; means suitable to an end, and executing their office in accomplishing that end, without the end ever having been contemplated, or the means accommodated to it. (Paley, 1802)

Thus, by analogy, Paley posited that there must in fact be a God, if for no other reason than to explain the dazzling (and otherwise unexplainable) complexity seen in the natural world, and particularly in the physiology and psychology of humans. Although this argument may seem simplistic by today's standards, Paley raised a hard hitting question for the people of his day: If humans are not the product of divine design, how then did we come to be the way we are? If God did not design us, how did we come to be at all?

The reason why Paley's argument seems simplistic to the modern reader is because of the work of Charles Darwin. Little more than half a century after Paley, in 1859, Darwin provided the only known viable alternative to divine design by showing that purely naturalistic, mindless processes alone are sufficient to create and sustain the breathtaking biodiversity present in the natural world. Darwin proposed that evolution of biological structures over time works via "natural selection," an algorithmic process

(Dennett, 1995) that operates on populations of replicators (e.g., plants and animals) when three conditions are present. First, there must be *variation* amongst a population of replicators (e.g., plants and animals). Differential body mass, hair colour, muscularity, and aggressiveness are just a few examples of the many traits on which most mammalian populations vary. Secondly, differential *selection* must occur amongst members of the varied population of replicators. Any of the above mentioned traits may fair better in terms of survival and reproduction; for example, if superior body mass is a trait which helps a male primate survive and reproduce, we can say that this trait is "selected for" or, that a "selection pressure" exists that pushes individuals of that population in this direction. Finally, there must be mechanisms of *inheritance* to ensure that offspring have some of the traits of their successful parents. For example, the larger than average male primate is likely to produce offspring that are also larger than average. When all three of these conditions are met (variance, selection, and inheritance), evolution by natural selection occurs and produces replicators that can, in the true sense of the word, evolve over time. As Richard Dawkins states so succinctly, biological life in all its forms is the result of "the non-random survival of randomly varying replicators" (Dawkins, 1976). Philosopher Daniel Dennett comments on the revolutionary importance of this way of thinking:

Evolution counters one of the oldest ideas we have: the idea that it takes a big fancy smart thing to make a lesser thing. I call that the trickle-down theory of creation. You'll never see a spear making a spear maker. You'll never see a horse shoe making a blacksmith. You'll never see a pot making a potter. (Dennett, 1995, p. 10)

In other publications, Dennett has compared Darwin's theory of evolution by natural selection to a ratchet, a simple configuration of interacting parts that serve to accomplish a great deal of work by the continuous iteration

of cycles that produce minute progressions. Given enough time (i.e., millions of years) this seemingly simple ratchet is capable of building structures of mind-boggling complexity. Just imagine the amount of work necessary to arrive at the design of a ratchet of natural selection that is capable of producing such evolutions; literally, changes over time (Miller, 2004).

So how can this Darwinian understanding of biological life contribute to our understanding of our thoughts about God and religion? Just as natural selection operates on physical features such as height and hair colour, it can also shape mental dispositions such as aggressiveness and mate seeking behaviour. It is a short step from here to realize that there may be a Darwinian root to our supernatural thinking as well. The salient question from this point of view becomes: “what pressure or pressures exerted by natural selection originally favoured the impulse to religion (Dawkins, 2006 p. 163)?” What is it about our evolved minds that produce an affinity for supernatural agents and behaviours? If such beings do not truly exist, why would natural selection ever have selected minds that favoured this illusory thinking?

It is important to note here that a naturalistic view of religion and supernatural thought, presupposes the non-existence of God. Darwin’s theory of evolution applied to supernatural thought actually flips Paley’s explanatory endeavour upside down and attacks the problem from the opposite direction: Where Paley posited supernatural entities to explain natural biological complexity, Darwin sketched out a process by which the perception of supernatural agency (among other things) is explicable in terms of naturalistic processes.

Once one grasps the Darwinian framework of naturalistic explanations, many hypotheses become possible (this section adapted from Clark, 2006): supernatural thought evolved because it provides comfort, or because it fosters in-group cooperation, or even because it satisfies our longing to understand why we exist. The particular puzzle with evolutionary

explanations of religious thought is the apparent “waste” of time and resources that religious activities seem to entail for the individual. Darwinian logic informs us that any waste whatsoever will be selected against:

If a wild animal habitually performs some useless activity, natural selection will favour rival individuals who devote the time and energy, instead, to surviving and reproducing. Nature cannot afford frivolous jeux d’esprit. Ruthless utilitarianism trumps, even if it doesn’t always seem that way. (Dawkins, 2006, p. 163)

So, how could religious thinking ever come about by such a process? Uncertainty concerning the details of such naturalistic explanations need not stop the entire explanatory endeavour, because we know that the religious behaviour must be “for” something. That is, because we know that natural selection eliminates (or imposes significant pressures against) the waste of time and energy, and, that human cultures all over the world devote time and energy to religion, it follows that religious thought provides (or provided) some form of benefit to the individual, or exists as a by-product of something that does.

Once this point is established, the challenging (and exciting) part comes in tracing the route from religious thought to the actual genetic benefits, or conversely, from the lack of religious thought to the genetic detriments. Many theories have been proposed, ranging from the predisposition for religious thought being adaptive to the individuals themselves, to religious thought being a by-product of some other set of direct fitness enhancing characteristics. Dawkins (2006) notes that focusing on behaviours as a by-product of something else can often be not only helpful, but essential to understanding it. He gives the example of the propensity for moths to fly directly into a candle flame. What could possibly be the genetic benefit of such reckless and destructive behaviour? It is only when we realize that moths and other insects have evolved the abil-

ity to use light as a sort of external compass that we can start to make sense of the behaviour pattern. Since the moon and the stars are at optical infinity, the incoming rays of light are parallel and therefore amenable for use as navigational aids via a simple rule, e.g., keep the light source at 30 degrees. However, when in the presence of a candle (which casts light in all directions) insects are drawn increasingly close to the source via repeated application of this rule, and thus perish in the flame. Thus, some behaviours must be understood as by-products of other evolved mechanisms if they are to be understood at all.

Could religion be one such behaviour? Perhaps it is the case that supernatural thought is a by-product of childhood gullibility, which would presumably have genetic advantages via children learning important fitness enhancing things about the world from their caregivers (Dawkins, 2006). Or, perhaps supernatural thought is a by-product of an irrationality mechanism in the brain, which would presumably have genetic advantages via fostering irrational emotional states such as romantic love (Dennett, 2006). Or perhaps supernatural thought is a by-product of yet some other adaptive mental mechanism.

Indeed, Dawkins and Harris take this view; they hold that people are attracted to religion in the same way that moths are attracted to candle flames, as a non-adaptive miss-firing of other adaptive systems. Thus, they conclude that supernatural thought and religion cause irrational thinking that leads to dangerous behaviour in the modern world. Harris elucidates:

The danger of religious faith is that it allows otherwise normal human beings to reap the fruits of madness and consider them holy. Because each new generation of children is taught that religious propositions need not be justified in the way that all others must, civilization is still besieged by the armies of the preposterous. We are, even now, killing ourselves over ancient literature. Who would have

thought something so tragically absurd could be possible? (2005, p. 73)

Indeed, there is no shortage of examples of the passion with which the new atheists attack the irrationalities of supernatural thought based on the religion as a by-product hypothesis. Addressing the question of “why be so hostile towards religion?” Dawkins comments:

As a scientist, I am hostile to fundamentalist religion because it actively debauches the scientific enterprise. It teaches us not to change our minds, and not to want to know exciting things that are available to be known. It subverts science and saps the intellect. (2006 p. 284)

But what if the by-product hypothesis of religion is incorrect, or only partly correct? Would such outright hostility towards the irrationality wrought by supernatural thought be warranted? It is to these questions, and the third claim of the new atheists (faith, defined as belief without evidence, is irrational and ought to be avoided), that we turn to in the next section.

ADAPTATION AS A GOLD STANDARD

What if instead of being a non-adaptive by-product of some other adaptation, the predisposition toward supernatural thinking is a group level adaptation in itself? Like the evolution of physiological structures, there are still other paths by which supernatural thought might be instilled in human brains via natural processes that are lesser considered by Dawkins and the other new atheists. The eminent evolutionary biologist David Sloan Wilson (2002) lists the alternative hypotheses, which he notes are not necessarily mutually exclusive:

The point here is to demonstrate that there are five separate viable hypotheses for the evolution of supernatural thought, only one of which (Table 2, 2.2) is generally supported by the new atheists. As is the case with other areas of science, empirical evidence will eventually

Table 2—Evolutionary Theories of Religion

1. Religion as an Adaptation
1.1. Religion as a group-level adaptation
1.2. Religion as an individual-level adaptation
1.3. Religion as a cultural “parasite” that often evolves at the expense of human individuals and groups
2. Religion as Nonadaptive
2.1. Religion as an adaptation to past environments, such as ancestral kin groups, that is maladaptive in modern environments, such as large groups of unrelated individuals
2.2. Religion as a byproduct (or “spandrel”) of genetic or cultural evolution

distinguish the correct hypotheses from the false ones, however this type of consensus is a long way off in the field of evolutionary explanations for supernatural thought. Assuming that religious thought is a non-adaptive by-product is helpful for the new atheists’ arguments of the available empirical data.

Other hypotheses, such as supernatural thought as a group-level adaptation (Table 2, 1.1) are taken seriously by biologist and group selection theorist D.S. Wilson. The specifics of group selection are beyond the scope of this paper, and controversial at best, however, it is sufficient for our purposes here to define group selection as the idea that groups are subject to the same selection pressures discussed earlier in this section. Traits that benefit the fitness (reproductive and survival success) of a group of individuals, but detract from the fitness of each individual can be explained in terms of group selection. In this way, groups can be thought of as competing against each other for scarce resources in the same way that individuals do. Applying this to the evolution of religious thought, if group A benefits from supernatural thought to the extent that it is able to out-compete group B which lacks these thoughts, a tendency towards supernatural thought will develop in subsequent generations, even across group boundaries. Wilson describes hypothesis 1.1 at book length in *Darwin’s Cathedral*:

My main hypothesis [is] that religious groups are products of group selection and are indeed like bodies and beehives. A given religion adapts members to their local environment, enabling them to achieve by collective action what they cannot achieve alone or even together in the absence of religion. The primary benefits of religion take place in this world, not the next. (2007b p. 237)

Thus, as reasonable as it sounds for the new atheists to posit that religion is a nonadaptive by-product, it is only one of many viable options. As we have seen in the preceding section, the view that one takes as to how supernatural thoughts evolved will ultimately affect one’s view of religion; how it ought to be thought of, and what ought to be done about it. If Wilson is correct, and supernatural-thought is an “elaborate system of beliefs and practices that define, motivate, coordinate and police groups of people for their own good” (2007a) then the new atheists’ claim that religious thinking must be “stamped out” is simply misinformed. Wilson notes:

The problem with Dawkins’ analysis . . . is that if he doesn’t get the facts about religion right, his diagnosis of the problems and proffered solutions won’t be right either. If the bump on the shark’s nose is an organ [i.e., an adaptation, as in hypothesis 1.1], you won’t get very far by thinking of it as a wart [i.e., a by-product as in hypothesis 2.2]. That is why Dawkins’ diatribe against religion, however well-intentioned, is so deeply misinformed. (2007a)

In elaborating on the social and political implications of Wilson’s hypothesis of the origin of supernatural thought, it will be instructive at this point to differentiate between two different types of explanation used in evolutionary analyses; ultimate and proximate. Ultimate explanations seek to answer *why* a particular trait or behaviour exists in evolutionary terms, whereas proximate explanations seek to answer *how* these traits or behaviours are brought

about. Daniel Dennett (2006) uses the example of the sensation of “sweetness” to demonstrate the differences between these levels of analysis. He explains that although there is nothing inherently “sweet” about the sugar molecules found within fruit or any other food, there certainly was a benefit for those who preferred to eat high-sugar foods in the evolutionary past. Over tens of thousands of years, natural selection would have favoured those who were motivated to eat such sources of energy and thereby favour those who had an innate desire for such sugar-rich foods. In effect, natural selection has hardwired the motivation to eat such foods into the brains of our ancestors, and consequently, into us. As Dennett notes:

Evolution has arranged for organisms to have a built-in powerful preference for anything that tickles their special-purpose high energy detectors. That is why we are born with the instinctual liking for sweets—and in general, the sweeter the better. (2006, p. 59)

So although there is an ultimate (i.e., why?) explanation for why we are motivated to eat high-sugar foods, it is also perfectly legitimate to explain this tendency in terms of proximate (i.e., how?) causes such as motivations and emotions. In light of this Darwinian “inversion of reasoning,” when Dawkins calls the idea of God a delusion (a persistent false belief, even in the face of contrary evidence), I agree with him. However, I also believe that he must concede that much of the world we perceive fits the same definition. One could make the case for the idea that what we perceive to be true, is often more important than what is actually true!

Our taste for sweets is a textbook example of an adaptation; some trait that is itself, favoured by natural selection. Wilson’s group-level adaptation hypothesis (1.1) holds that supernatural thinking (e.g., belief in some God or other, and the laws he/she prescribes) is a proximate mechanism for motivating group-beneficial behaviours, in much the same way that our taste for sweets is a proximate mechanism for

motivating individually adaptive behaviour. In his 2002 book, *Darwin’s Cathedral*, Wilson lists several *randomly sampled* supernatural belief systems that cause their religious communities to act in adaptive ways (i.e., religious belief systems that provide *secular utilities*). One such example was the Water Temple belief system on the island of Bali. For the sake of brevity I will forego the details; however, it is sufficient to highlight that the supernatural component of the belief system was such that it aided its adherents in resolving practical problems such as natural resource management, optimal food production, and cheating on social contracts. From this perspective, it becomes clear that the irrationality inherent in supernatural thought that the new atheists vehemently attack, may be an adaptation in its own right. It follows from this, that irrational supernatural beliefs should be studied and understood, rather than mocked and berated. Wilson explains:

People who stand outside of religion often regard its seemingly irrational nature as more interesting and important to explain than its communal nature. Rational thought is treated as the gold standard against which religious belief is found so wanting that it becomes well nigh inexplicable. Evolution causes us to think about the subject in a completely different way. Adaptation becomes the gold standard against which rational thought must be measured alongside other modes of thought. In a single stroke, rational thought becomes necessary but not sufficient to explain the length and breadth of human mentality, and the so called irrational features of religion can be studied respectfully as potential adaptations in their own right rather than as idiot relatives of rational thought. (2002, p. 122–123)

So, although it may be the case that belief in the supernatural is technically false, and also thereby technically irrational, it certainly does not follow directly (especially from the available empirical evidence) that such thoughts ought to be avoided outright or actively discouraged.

Rather than forcing us to discard irrational beliefs altogether, the admission of irrationality only forces us to distinguish between two types of realism: “a factual realism based on literal correspondence [to the natural world], and a practical realism based on behavioural adaptiveness” (Wilson, 2002, p. 228). Practical realism is what might be thought of as “truth” or “reality” on the proximate level, while factual realism is what might conversely be thought of as “truth” or “reality” on the ultimate level. What we perceive to be “real” on the proximate level—like the sweetness of sugar, love for our family and friends, or the omnipotence of some supreme being—is simply not “real” in the ultimate sense. They are what psychologist Daniel Wegner (2002) would call veridical illusions; illusions that we are so much the better for having. The point here is that our practical truths—our beliefs—connect us, in a very real way to the ultimate, or factual reality by motivating adaptive behaviours that allow for the continued existence of our species within that reality. Wilson (2007) notes that although all cultures of the world possess some degree of factual realism, or what could be called proto-scientific thought, “this mode is easily eclipsed by other modes that freely distort and make up facts to motivate successful behaviours” (p. 282). He then flips the question of irrational thinking upside down:

To paraphrase evolutionary psychologists, factual realists detached from practical reality, were not among our ancestors. It is the person who elevates factual realism above practical realism that must be accused of mental weakness from an evolutionary perspective. (p. 28)

To make this point absolutely clear—because it is so important to the understanding of religion from an evolutionary perspective—consider the following analogy: Our practical reality is similar to the operating systems (e.g., Windows for PCs) of modern computers (Hoffmann, 2006). The icons on the desktop do not exist in the factual sense (they too are

veridical illusions), but rather exist only to elicit the kinds of behaviours from us that then make “real” changes to the system, such as toggling voltages in electronic circuits. Psychologist Daniel Hoffmann (2006) notes that the “interface” used to accomplish this need bear no resemblance to the real (factually real) system itself:

Drag a file’s icon to the recycle bin and the file is, no doubt, deleted. Yet neither the icon nor the recycle bin, each a mere pattern of pixels on a screen, causes its deletion. The icon is a simplification, a graphical correlate of the file’s contents, intended to hide, not to instantiate, the complex web of causal relations. (p. 94)

Factual realism by itself may not even be sufficient to motivate the types of adaptive behaviours that are so necessary to our survival. Indeed, the views that the new atheists espouse to the contrary are truly the opinions of scientists, not scientific fact. It’s as if Dawkins, speaking directly to the moth spiralling into the candle flame, is saying: “Stop being so irrational! There is very little evidence to support the idea that you are travelling in a straight line. You ought to stop deluding yourself.” The point is not that the moth is being irrational, but rather that it is predisposed (proximately motivated) to react in such a manner. Evolutionary anthropologist Scott Atran (2006) comments on the new atheists’ persuasive endeavour:

efforts to fight religious belief itself—to “de-program” the religious—make about as much sense as attempts to banish the irrationalities of romantic love, vengeance, or any sentiment of hope beyond reason.

What is required here is a more in-depth and scientific investigation into the nature of supernatural beliefs, in an effort to understand them in their original evolutionary context. Perhaps we will find that supernatural thought is as D.S. Wilson proposes: proximate motivation for adaptive, collective action. Or, perhaps we won’t. Whichever way the facts fall, and which-

ever hypothesis is eventually supported by the evidence is secondary to the larger question of what values we assign to those facts. Faced with this human irrationality, we need to be able to accomplish more than to simply insist that all human thought ought to be rational; we need to be able to understand human irrationality, religious and otherwise, in such a way as to “advance the goals of a peaceful and stable society . . .” (Wilson, 2007a)

But what of the violence caused by pious devotion to these irrational beliefs? Although appealing to the supernatural, and organized religion may help some groups overcome practical difficulties, what about the overwhelming amount of blood spilled in the name of non-compatible deities? Is this not enough evidence to justify the passionate and even hostile sentiments of the new atheists? It is to this final claim of the new atheist movement we turn to now.

RELIGION, STEALTH RELIGION, AND VIOLENCE

There is no shortage of conflict in our world, and the new atheists are quick to enumerate the instances where religion is involved. Sam Harris (2005) builds a comprehensive list in *The End of Faith*:

The recent conflicts in Palestine (Jews v. Muslims), the Balkans (Orthodox Serbians v. Catholic Croatians; Orthodox Serbians v. Bosnian and Albanian Muslims), Northern Ireland (Protestants v. Catholics), Kashmir (Muslims v. Hindus), Sudan (Muslims v. Christians and animists), Nigeria (Muslims v. Christians), Ethiopia and Eritrea (Muslims v. Christians), Sri Lanka (Sinhalese Buddhists v. Tamil Hindus), Indonesia (Muslims v. Timorese Christians), and the Caucasus (Orthodox Russians v. Chechen Muslims; Muslim Azerbaijanis v. Catholic and Orthodox Armenians) are merely a few cases in point. In these places religion has been the explicit cause of literally millions of deaths in the

last ten years. (p. 26, emphasis original)

From the religion-as-a-by-product perspective, it really seems that religion is to blame for much of the violence in the world. Surely this must be enough evidence to convince any rational person that the violence religion causes *between* groups is more than enough to out-weigh the benefits that it causes *within* groups. From this account, it would seem that differential religious faith and world peace are simply not compatible, and that on balance, the world would be much better off without religion at all. If we could only somehow get people thinking rationally, the new atheists argue, differing religious factions would see the futility of their arbitrary beliefs and cease fighting over “ancient fiction.” To this end, the new atheists argue that religious thinking ought not be sheltered from the kinds of criticisms that are applied to all other facets of human intellectual life, such as politics, history, and literature. Harris (2005) emphasizes:

If our tribalism is ever to give way to an extended moral identity, our religious beliefs can no longer be sheltered from the tides of genuine inquiry and genuine criticism. It is time we realized that to presume knowledge where one has only pious hope is a species of evil. Wherever conviction grows in inverse proportion to its justification, we have lost the very basis of human cooperation. (p. 25)

This is one way to frame the problem; however, as we have seen, there are others. From a religion-as-a-group-level-adaptation perspective (hypothesis 1.1), it is not religion or its supernatural components that *cause* violence, it is human nature itself. On this view, if there were no religion, there would still be other flags to rally around, and other enemies (who have rallied around other flags) to fight. In this sense, it is not religion *per se* that we ought to be concerned with, it is the potentially violent nature of the human condition that just so happens to be predisposed to supernatural thinking. Wilson (2007) clarifies:

Those who criticize religion . . . are right about [it's] failures. However they seem to think that just by pointing out the failures, right-minded people will see the light and the problem will be solved. That's just plain dumb. They need to understand that the problem is deeply embedded in the way we are as a species, and the solution requires creating a social environment in which their ideal belief system, and mine, can survive. (p. 282)

From this perspective, it is not only religions that we ought to be concerned about, but also every other human belief system that aims to distort factual reality for its own narrowly defined goals, such as overly patriotic histories of nations, and other non-religious ideologies. These are what Wilson (2007) calls “stealth religions.” He notes that supernatural notions, such as Gods and divine laws, are only one particular departure from factual reality, and their presence (or absence) in any given belief system is simply a detail of that departure, rather than definitional of departure itself. That is, positing, or believing in Gods, is sufficient, but not necessary to distort reality in dangerous and irrational ways.

Thus, we can see that *even if we could* rid the world of religion as defined by the new atheists, human nature would still find the requisite differences between groups to start wars and commit atrocities. Contrary to the fervent claims of the new atheists, abolition of the supernatural is simply not sufficient to bring about the kind of peaceful world that all citizens hope for. The new atheists’ departure from factual reality in assuming unproven hypotheses regarding the evolution of religious thought, and using them persuasively to organize politically-minded groups is a hallmark of standard in-group versus out-group moral thinking, rather than scientific thinking (Haidt, 2007). Moral psychologist Jonathan Haidt notes:

The metaphor for science is a voyage of discovery, not a war. Yet when I read the new atheist books, I see few new shores. Instead I see battle-

fields strewn with the corpses of straw men.

Although the new atheism is firmly rooted in scientific fact, to the extent that it departs from these roots, and from factual reality in the pursuit of its own goals, it is more characteristic of a stealth religion than a scientific clarification. The overwhelming irony here is that in explicating the irrationalities of the evolved human mind, the new atheists fall into the exact trap they warn others to avoid. Departing from factual reality in such a way as to benefit narrowly defined goals does not make the new atheists bad, or evil, or base, or petty. It makes them human.

CONCLUSION: SCIENCE WILL NEVER SILENCE GOD

Amidst all of the controversy and conflict surrounding extremist religion in the modern world, the intellectual and persuasive endeavour of the new atheism should not go unpraised: Scott Atran (2006) notes:

The task of containing and trying to roll back political fundamentalist movements in the United States and across the world is important and praiseworthy. Fundamentalist-inspired attempts to dictate what science must or must not consider, such as the de facto criminalization of evolutionary teaching in certain Muslim countries or force feeding the inanities of Intelligent Design in American high schools, are damaging to science and society.

However, as has been my focus in this paper, technically false and technically irrational supernatural beliefs are a part of what makes us human; and in the face of this basic human irrationality, it is simply not rational, nor even effective, to insist that all human thought be rational. In establishing this view, I have identified and discussed the four central claims of the new atheists and evaluated each within the framework of two realities: practical and factual. Some of the claims that the new atheist’s

make, such as the idea that the evidence for the existence of god is very weak from a scientific standpoint, do not deviate from factual reality at all. For pointing to the irrationalities of the human condition in memorable and thought provoking ways, Dawkins, Harris, and the other new atheists ought to be applauded for their keen observation and their publication efforts. However, from these humble beginnings, these authors then proceed to make other claims that ever so slightly distort factual reality—the scientific facts—in such a way that their *opinions* about religion and human irrationality are supported. In this way, the intellectual persuasiveness, and political rallying of the new atheists falls into its own trap of unreason by developing the characteristics associated with an organized departure from factual reality; a stealth religion.

From a scientific point of view, we can say that God almost certainly does not exist. But we cannot conclude, based on this fact, nor any combination of currently available scientific facts that:

- a) supernatural thought is a non-adaptive by-product of other adaptations, or;
- b) that this form of irrational thought ought to be avoided, or finally;
- c) that a world without religion would be a more peaceful one.

Thus, my fellow citizens, I submit to you the idea that although science *is* indeed challenging your irrational beliefs, science is not, nor could it ever, challenge what your irrational beliefs are for. Adherence to the kind of factual realism required by science does preclude belief in the supernatural in a strict sense, but from an evolutionary perspective, those supernatural beliefs are as much a part of you, and have as much adaptive value, as your desire to seek sweet food, and your desire to find true love. Given the irrational nature of our evolved minds from a factual realist perspective, our minds, and our “souls” are still good for what we always thought they were for: for loving, for

hating, for deciding, for making and breaking promises to loved ones; for being human. With the benefit of evolutionary thinking firmly held to the rails of factual realism we are just a little more disillusioned about the process. In this sense, the facts garnered by science will never be sufficient to root out this most ancient of our motivations; science will never silence God:

There will never be a day when God does not speak for the majority. There will never be a day when he does not whisper into the ears of the most godless of scientists. This is because god is not an idea, nor a cultural invention, nor an “opiate of the masses,” nor any such thing. God is a way of thinking that has been rendered permanent by natural selection. (Bering, 2007)

To depart from factual reality in experiencing the whisper of a God is to be human. However, as I have suggested previously, the ultimate goal should not be the destruction of such predispositions (whatever that might entail), but rather the gentle coaxing of them into societal systems that combine the best of what religion and science have to offer. We need to further investigate the tradeoff between the practical reality that we *feel*, and the factual reality that we *know*, and allow for the optimal expression of our ingrained irrational thoughts while maintaining a firm commitment to factual reality, even when scientists opine otherwise.

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