Foreword

On the Origin of Afterlife Beliefs by Means of Memetic Selection

Steve Stewart-Williams

[B02.0] My grandmother died when I was fourteen. It didn't come out of the blue; she'd been teetering on the edge of life for several months, and I don't think anyone was in any doubt about where things were headed. For some time, she'd been too unwell to live alone in her little flat, so she'd moved into my aunt and uncle's house—a large house in a small town where I'd spent many happy summer holidays as a child. One night, shortly before the end, something strange happened. My aunt and uncle were woken abruptly in the middle of the night by a series of bumps and bangs coming from out of the darkness. They got up to find out what was going on. What they found was my grandmother—granny—packing her suitcases. "What's going on? Why are you packing?" they asked, gently guiding her back to bed. She responded: "I just saw my parents, and they told that me it's time to go." She died the next day.

This is one of my favorite stories. At the time it happened, I still believed (or half-believed, or wanted to believe) in an afterlife, and this struck me as evidence consistent with that belief. Of course, on its own, it wasn't clinch-the-deal-type evidence. But it wasn't the only story of its kind. There were many similar stories floating around, as there still are, and although each on its own might only have offered a fragile wisp of a reason to believe, together they added up to a reasonable case that perhaps we really do survive death. That, at least, is what I thought back then. It's not what I think anymore. As much as I love my grandmother's story, it's all too easy to come up with plausible alternative explanations for what happened—explanations that

don't invoke supernatural causes. The same is true of every other near-death story I've come across. Even if you're a believer yourself, you could no doubt come up with any alternative explanation that I might suggest. So, rather than picking apart the evidence, I'd like to focus on another, more puzzling issue. If you didn't already have the concept of an afterlife in your repertoire of ideas, it wouldn't have occurred to you that my grandmother's story could be given a supernaturalistic interpretation. Nor would it have occurred to me at the time it happened. We would both have immediately assumed that she'd had a dream or hallucination about her parents, and we would not have seen the connection between the statement "it's time to go" and my grandmother's subsequent death. The only reason that we saw any other interpretation is that, at some point the past, we somehow picked up the idea of an afterlife from our culture. So, where did this idea come from in the first place?

A PLETHORA OF THEORIES

This is not an easy question to answer. The problem is not that there aren't any plausible theories to explain it; the problem is that there are too many. Some claim that the belief in an afterlife is wishful thinking; others that it's a way of promoting socially desirable behavior; and others still that it represents ancient people's best effort to explain strange phenomena such as dreams. More recently, it has been suggested that religious beliefs, including afterlife beliefs, are the handiwork of evolution by natural selection, or byproducts of various evolved psychological capacities. All of these ideas look plausible enough on the face of it, so the question becomes: how can we choose among them? Here I have a definite bias; I would prefer *not* to have to choose among them unless absolutely necessary, but instead to integrate them into a broader explanatory schema. There is one approach to explaining religious belief that it seems to me provides a useful framework for doing just that. According to this approach, afterlife beliefs are products of natural selection, but not natural selection operating on genes or any other biological entities. Instead, afterlife beliefs are products of natural selection operating on ideas or *memes*. Unfortunately, I don't have enough space here to develop this argument in detail. What I propose to do, though, is run through the traditional theories for belief in an afterlife, pausing to note their strengths and weaknesses, and then sketch an outline of how they might fit together within the overarching framework of a memetic approach. The first theory

we'll consider is the wishful-thinking theory.

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[B02.4] Wishful Thinking

[B02.5] According to some scholars (and many barstool philosophers), religion is all about comfort and consolation. Religious beliefs are molly-coddling illusions. This includes afterlife beliefs. Indeed, afterlife beliefs are Exhibit A in the case that religion is a product of wishful thinking. The belief in life after death may eliminate—or at least weaken—the fear of personal extinction, the overwhelming sadness we experience when a loved one dies, and the sense that a life of finite duration would be meaningless. Importantly, it may also help us to comfort and console other people when they lose a loved one or come face-to-face with their own impending demise. Of course, it is not the case that each of us invents comforting religious stories for ourselves. Most people hold the religious beliefs that they do simply because they were taught them as children by their parents and the surrounding culture. But why did people dream up these particular beliefs in the first place? Why did these beliefs get so popular? And why are so many people so unwilling to relinquish them, even in the face of strong evidence that they're false? These are the questions that the wishful-thinking theory purports to answer. In short, people invent, retain, and refuse to relinquish religious beliefs because they provide a balm and salve for the pains of life—our own and those of the people we care about.

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To my mind, the wishful thinking theory contains an important grain of truth—more than a grain—but it's incomplete. It's incomplete for at least two reasons. First, it isn't entirely clear that afterlife beliefs provide much comfort. Believers still tend to fear death and grieve the loss of their nearest and dearest (a point I'll come back to later). Perhaps religious beliefs persist not because they provide comfort, but because, once acquired, discarding them produces acute discomfort. An analogy can be drawn with nicotine addiction. Once addicted, cigarettes give relatively little pleasure. But as soon as we try to give them up, we experience intense and unpleasant cravings. The addiction is maintained less by the pleasure it produces than by the displeasure it keeps at bay. Perhaps afterlife beliefs are the same. So that's the first reason that the wishful thinking explanation is incomplete. The second reason is that wishful thinking does not account for the fact that so many afterlife beliefs are anything but comforting. Millions of people have lived in fear of Hell or eternal damnation, or other frightening postmortem possibilities. Indeed, the idea that an eternity of suffering might await oneself or a loved one is a good candidate for the most unpleasant idea devised by human minds. Charles Darwin called it a "damnable doctrine" and wrote: "I can indeed hardly see how anyone ought to wish Christianity to be true" (1839/2002, p. 50). Rather than relieving people's fears, afterlife beliefs often create fears that people wouldn't otherwise have. So, although wishful

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thinking might be part of the story, it can't be the whole story. We need to explore other avenues.

Social Glue [B02.7]

The social-glue theory is probably the second most popular theory of religion. The idea is that religious beliefs are the cement that holds societies together. According to thinkers such as Emile Durkheim, the rituals and doctrines of religion provide social solidarity and foster a sense of community by providing common beliefs and values, and by motivating people to be moral. The social-glue theory has a major advantage over the wishful-thinking theory—namely, that it can explain not only our comforting afterlife beliefs, but also our frightening ones. In a nutshell, the comforting beliefs are designed to encourage socially beneficial behavior ("if you're good, the reward is eternal life"), whereas the discomforting beliefs are designed to discourage socially harmful behavior ("if you're bad, the punishment is eternal suffering, or rebirth into undesirable conditions, or some other negative outcome"). There are two main sticking points for the social-glue approach, however. The first is that not all religious beliefs are socially beneficial history shows us that religion can sometimes tear groups and nations apart rather than building them up. The second sticking point is that no mechanisms are suggested for putting these socially beneficial beliefs in place to begin with. Like the wishful thinking theory, the social-glue theory may turn out to contain a grain of truth, but it is difficult to imagine that it could be the whole truth and nothing but the truth.

Social Control [B02.9]

These problems open the door to a cynical twist on the social-glue theory: According to this view, rather than religious beliefs functioning for the good of society or individual believers, they function for the good of . . . the people who promote the beliefs! They are tools of social manipulation. Parents and teachers use them to control children; husbands use them to control wives (and vice versa); slave owners use them to control slaves; the ruling classes use them to control peasants or the proletariat; and priests, kings, and other leaders use them to control tribes, gilds, and nations. Applied to afterlife beliefs, we might suggest that people attempt to control others' behavior with the promise of Heaven and the threat of Hell in exactly the same way that parents attempt to control their children's behavior by telling them that, if they're good, Santa will bring them presents, but if they're naughty, he won't. Now in claiming that religious beliefs are sometimes used manipulatively, I'm not denying that some religious people genuinely believe what they claim to believe. In the past decade or so, I've read about two cases

where religious leaders have attempted to demonstrate the power of faith by walking on water; in both cases, the demonstration failed and the leader drowned. Clearly, some people do truly believe. However, the true believers may be innocently perpetuating beliefs that began as the manipulative lies and deliberate deceptions of their less scrupulous colleagues.

[B02.11] Again, as plausible as the social-control theory might sound, it faces various criticisms. One of the main ones is that religious beliefs are often grassroots phenomena, and have sometimes been used to liberate people from the clutches of their leaders and exploiters, rather than to shackle them. It seems highly unlikely that all religious beliefs were invented for the purpose of exploitation. Nonetheless, it is plausible that people's efforts to manipulate one another are one of the many factors shaping the religious ideology of any culture.

[B02.12] Primitive Science

[B02.13] A rather different style of explanation is found in the idea that religious beliefs are a sincere, though failed, attempt of earlier peoples to understand the phenomena of life. They are, in other words, fossils of our early efforts to explain the world around us. The classic example comes from the anthropologist Edward Tylor. Tylor pointed out that, in the normal course of their lives, people have a number of anomalous experiences, experiences that would have been very hard for prescientific peoples to explain. For instance, when we lie down to sleep, our bodies remain where we left them—and yet we often have the experience of being elsewhere and doing other things. How might we explain this in the absence of a mature scientific understanding of the world? Well, one explanation would be that part of us leaves the body: an ethereal element capable of exploring strange worlds quite unlike the world of waking life. And it doesn't end there. Sometimes we have vivid, emotionally charged dreams in which we encounter people who have died (this is presumably what happened to my grandmother). How can we explain this? Well, perhaps the part of us that leaves the body during dreams survives bodily death. And voila!—we see how religious beliefs, including afterlife beliefs, could emerge from people's honest efforts to explain the things that happen to them. These beliefs may sometimes be comforting or socially useful, but that's not the point. They are efforts to explain the facts of our experience and to gain knowledge of the world. As with the earlier suggestions, there appears to be some merit to this approach. However, the primitive-science theory doesn't explain why, if knowledge is our only goal, so many people are so resistant to giving up their afterlife beliefs when confronted with contrary evidence. And it doesn't explain why, if religious beliefs are primarily explanations for puzzling but commonplace experiences, so many religious beliefs are so completely disconnected from the evidence

of human experience. Again, the approach may be a piece of the puzzle, but we must avoid mistaking it for the whole puzzle.

EVOLVING AN AFTERLIFE

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Let's turn now to the more recent approaches to the explanation of religious belief: those informed by evolutionary theory. The most obvious way to apply Darwinian thinking to religion is also probably the least plausible. This is the idea that religion is a direct product of natural selection. Just as teeth and claws and eyes and wings were selected because they advantaged the individuals possessing them, religious beliefs were selected because they advantaged religious believers. Thus, afterlife beliefs may be adaptive because they give believers confidence and purpose, or because they lower anxiety and thereby improve health, or because they bind groups together and thereby further the interests of the group and its members. The main problem with all of these suggestions is that people's religious beliefs vary so much, across cultures and historical epochs, that it is very difficult to imagine that they are all instances of the same adaptation. In the realm of afterlife beliefs, for instance, some religions posit a disembodied existence, others reincarnation, and others still bodily resurrection. These ideas have little in common with one another, and the main thing that determines which belief a particular person holds is where in the world they grew up. This suggests that specific afterlife beliefs are products of culture rather than biology. Furthermore, millions of people manage to make their way through life without any afterlife beliefs at all. This makes these beliefs weak candidates for adaptations; after all, the most plausible examples of psychological adaptations, such as the basic emotions, are found in all normal human beings, and you can't just talk yourself out of having them. One might argue that particular religious beliefs are not adaptations, but that the tendency to follow the religious beliefs of one's community is an adaptation. However, even if the tendency to acquire the local religious beliefs can be traced to an evolved tendency of mind, this is probably best construed not as a tendency to imbibe religion specifically, but rather a tendency to conform to local beliefs and practices, whatever these happen to be. If this is correct, then religious beliefs are not direct products of evolution, but byproducts of another, more general tendency of mind. And this brings us to a more promising evolution-minded explanation for religious belief: the byproduct approach.

A Spandrel in the Works

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According to the byproduct approach, religion itself is not a product of natural selection; instead, it piggybacks on other aspects of the mind that are. In other words, religion is what Stephen Jay Gould and Richard Lewontin

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(1979) call a "spandrel." So, for example, the belief in life after death may be an accidental, incidental byproduct of the capacity for "theory of mind." Theory of mind is the (somewhat awkward) name given to the capacity to construe others and oneself as agents possessing beliefs, desires, and other mental states. This capacity is found in all normally developing human beings; it is absent or largely absent in all other animals, and is plausibly a product of natural selection. An implication of this view is that humans naturally think about physical objects and minds using distinct mental "vocabularies." For instance, we construe physical objects, but not mental states, as possessing spatial dimensions. This makes it easy for us to imagine that minds are something distinct from bodies. It doesn't force this conclusion, and it certainly doesn't force the further conclusion that the mind could exist independently of the body or survive bodily death. But it does mean that these ideas come naturally to us. They're easy for us to accept because they fit the natural contours of our minds. Thus, a curious byproduct of theory of mind is that we are prone to believe, falsely, that the mind (or soul) is something distinct from the activity of the brain, and that it could ascend to Heaven, or be reborn into another body, or merge back into some kind of collective consciousness. I'm a big fan of the byproduct approach; I think it has a lot going for it. But for now, let's turn to the final Darwinian approach to the origin of afterlife beliefs and see how it might help us make sense of the various ideas we've already considered.

[B02.18] Afterlife Beliefs as Selfish Memes

[B02.19] So far we've looked at four traditional, nonevolutionary explanations for afterlife beliefs (i.e., afterlife beliefs as wishful thinking, social glue, manipulation tools, or primitive science), and two evolutionary explanations (i.e., afterlife beliefs as adaptations or spandrels/byproducts). Now it's time to consider the third and final evolutionary explanation. This is, in my view, by far the most exciting recent addition to the stable of explanations for religious belief. The approach is known as memetics, and it focuses not on selection among genes, but selection among memes. The word "meme" was coined by Richard Dawkins (1976), and refers to a unit of culture or a cultural variant (Boyd & Richerson, 1985, p. 33). Less precisely, a meme is an idea. A joke is a meme; the first four notes of Beethoven's Fifth are a meme; catchphrases, urban legends, mannerisms, embarrassing YouTube videos, and irritatingly catchy tunes are all memes as well. The central claim of memetics is that, like genes, memes are subject to a form of natural selection. The memes that come to predominate in a culture are those that, through accident or design, have properties that increase their chances of predominating—properties that make them more likely to capture people's attention, more likely to stick in people's minds, more likely to be passed on

from brain to brain by word of mouth. Memes aren't necessarily selected because we like them; catchy tunes (also known as *ear worms*) are memetically successful despite the fact that we often strongly dislike them. And memes aren't necessarily selected because they're useful to us; the "smoking tobacco" meme has survived for many centuries despite the fact that it tends to kill its hosts (and despite the fact that it doesn't even provide much pleasure). A meme *might* be selected because it's useful to us, but it doesn't *have* to be useful to be selected. It only needs to have attributes that keep it in circulation in a culture. Applied to religion, the memetics approach holds that religion is a product of cultural evolution rather than biological evolution, and that religious beliefs will have properties that keep them in circulation, perhaps even at our expense.

As I see it, the memetics approach does not displace the other theories about the origins of afterlife beliefs. What it does is provide a useful overarching framework for integrating the grain of truth contained in each of these theories into one cohesive overall picture. Here's how it might work. With each of the earlier approaches, thinkers have identified a psychological or cultural "selection pressure" acting on religious memes. These are: (1) selection for beliefs that comfort us or comfort the people we care about; (2) selection for beliefs that foster social cohesion; (3) selection for beliefs that help us manipulate other people's behavior; and (4) selection for beliefs that explain (or give the appearance of explaining) the world around us. No doubt there are others as well. As with biological evolution, these selection pressures can come into conflict with one another and pull in different directions. So, for instance, we may want to believe something because it is comforting (selection pressure #1), but be unable to do so because it would clash too violently with the evidence of our own eyes (selection pressure #4). This suggests that one kind of memetically successful religious belief would be a belief that promises to provide comfort and consolation, but which is also not too readily falsified in everyday life. The belief in life after death fits this description perfectly. People tend to want to believe that it's true, and we encounter little in everyday life that explicitly contradicts it. Not only that, but the belief may also make sense of some anomalous experiences! Note that the memetic approach and the byproduct approach are often viewed as natural enemies; many assume that if one is correct, the other must be false. This doesn't seem right to me. It seems entirely possible (and in fact absolutely necessary if we want an accurate picture of things) to integrate the two approaches. The basic idea would be that particular memes are themselves byproducts of evolved psychological tendencies of thought (e.g., theory of mind), and that the memes that gel best with these tendencies are the most likely to catch on and spread—the most likely to "go viral." In essence, the spandrel approach describes the environment to which religious memes (and indeed any memes) must adapt.

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With the memetic perspective at our disposal, we can start piecing together a story about the cultural evolution of afterlife beliefs. The story begins in the dark recesses of prehistory, with the evolution of big brains and humanlevel intelligence. Our sophisticated intellectual abilities were presumably selected because they enhanced our ability to survive and reproduce. Exactly how they did this is still an open question; it may have related to the development of tools and tactics for making a living in a hostile physical environment, or the capacity to navigate a complex social landscape, or the capacity to entertain and attract prospective mates, or perhaps some combination of these things. But however it evolved, our intelligence had an unfortunate, "unintended" side effect: it permitted us an understanding, unique among the animals, that one day we're going to wake up and it will be the last time that we ever do. One day, in other words, we're going to die. In this way, the evolution of intelligence created a psychological selection pressure for beliefs that allayed our concerns about death. The belief in some kind of afterlife may initially have prospered because it was welcome news to creatures who found themselves in the awkward predicament of possessing an evolved desire to survive but also the cognitive capacity to recognize their own mortality (a terrible combination!). This was not a recent innovation. We know that human beings were burying their dead for many thousands of years before the emergence of large-scale civilizations, and we know that the burials were attended by complex and costly rituals and offerings. This strongly suggests that our Paleolithic forebears had some conception of life after death. Afterlife beliefs are tens of thousands or even hundreds of thousands of years old.

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The next Great Leap Forward in the cultural evolution of our afterlife beliefs came with the development of agriculture. As soon as people started domesticating plants and animals, they began to live in much larger and more densely packed groups. The anthropologist Robin Dunbar (2010) has argued persuasively that for groups of up to around 150 people, our social instincts are adequate to keep our societies running smoothly. As soon as groups get much bigger than this, though, social cohesion starts to break down and the groups ultimately fall apart unless cultural institutions are put in place to artificially foster the cohesion of the community. Thus, agriculture created a cultural selection pressure for memes that helped maintain social cohesion. Those groups that happened to come up with memes fitting the bill persisted, grew, and spawned daughter groups; those that didn't, didn't—and thus we don't see them or their descendants in the world today. Which memes would do the job? Well, afterlife beliefs were probably a strong contender. They already had a foot in the door in human populations. Indeed, people might already have been using them to influence one another's behavior. However, with the advent of agriculture, the selection pressure for memes useful for this purpose might have dramatically increased in strength. Afterlife beliefs

(and religious beliefs in general) may have become progressively better adapted for fostering social cohesion in large-scale human societies.

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Thus far, nothing I've said about the meme approach goes beyond the traditional theories; it merely ties them together under the banner of the word "meme." However, memetics can do more than that. First, it may help us understand the historical development of our afterlife beliefs. To see how, we must remember that memes don't just adapt to fit the evolved design of the mind; they also adapt to one another and compete with one another. Here's an example. The earliest recorded ideas about the afterlife are decidedly underwhelming in comparison with our modern conceptions. The underworld of the Greeks and Sumerians was not a perfect paradise; it was a somewhat bleak and impoverished existence, and the same is true of the Netherworld of the Mesopotamians and "Sheol" of the early Hebrews. Compare this to today's notions of Heaven as infinitely wonderful and Hell as infinitely terrible. This historical change is not due to changes in the basic design of the human mind. One might suggest instead that, over the course of history, there has been an ongoing "arms race" between different religions and religious factions, with each upping the ante, step by step, in order to attract adherents and exert some control over them. Over time, Heaven got better and better, while Hell got worse and worse. This may be an example of a memetic arms race, comparable to the arms races seen in biological evolution.

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In addition, the meme theory highlights something that none of the other theories do, namely, that for a belief to prosper, it does not need to be advantageous to the believer; it only needs to be "advantageous" to itself. This insight may prompt us to ask important new questions about the nature of afterlife beliefs. For instance, a lot of people are convinced that losing their belief in life after death would make their lives unpleasant or even unlivable. But a lot of people have lost this belief without too much trauma. Sure, they might experience some initial discomfort (the withdrawal symptoms we talked about earlier). However, after a period of readjustment, most people are about as happy (or unhappy) as they were before. Why, then, do so many people have the idea that losing their belief in immortality would be so terrible? As Daniel Dennett likes to ask, cui bono (who benefits)? One possibility is that no one benefits; people are just wrong about how they would react. But another possibility is that the beneficiaries are the afterlife beliefs themselves. The idea that losing these beliefs would be truly horrible serves to protect the beliefs by discouraging us from challenging them too vigorously. Perhaps this idea can be understood as an adaptation—not a biological adaptation belonging to us, but a memetic adaptation belonging to our religions and spiritual belief systems. There is no need to suppose that anyone sat down and thought up this tactic for retaining believers. Instead, it may just be that the afterlife beliefs that have survived in our culture are

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lost since then.

those that happened to get attached to such notions as that, without these beliefs, life would be bleak and unbearable. This is, of course, an entirely speculative scenario. It shows, though, that if nothing else, the meme approach is a fertile source of new ideas about how afterlife beliefs originated and persist.

Foreword

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WHY GO THERE?

[B02.26] There's one last issue that I want to touch on before wrapping up, a question that probably occurs to anyone who picks up a volume like this: Why press this issue? Why risk taking people's comforting illusions away from them? The standard response is that we should face the fact that our time is finite because this gives us the best opportunity to make the most of the one short life that we have. This isn't a bad response, I suppose, but there are at least four other reasons that it might be important to promote the view that death is the end. First—and I think we sometimes underestimate the importance of this point—it's important because it's true. The truth matters as an end in itself, and we should tell the truth just because it is the truth. Second, as we've seen, afterlife beliefs are not always comforting; many cause grief and suffering, and given the manifest falsity of our afterlife beliefs, this suffering is utterly unnecessary. Third, by clearing away our superstitious beliefs, we help usher in a more accurate view of the world, and this view is beautiful in a stark kind of way. According to modern science, the universe is an explosion, and you and I and my grandmother are little bits of that explosion, built from the ashes of ancient supernovas, assembled by a mindless process in such a way that, somehow, these ancient atoms have become conscious of themselves and capable of understanding the nature of the universe of which they are a part. There's a price to be paid for this naturalistic view of things, but a good case can be made that it's a price worth paying. And finally, one could argue that we have a moral obligation to confront the true nature of death. In particular, we have a moral obligation to grieve the death of our loved ones. I owed it to my grandmother to grieve her death, because her death was a genuinely sad event. It would hardly be respectful to her memory to try to pretend that actually it hadn't happened and that she was still alive, just somewhere else. I owed it to her to honestly confront what had happened to her, even if this made the pain worse; I owe the same to everyone else I've

[B02.27] So those are my top four reasons to think that we should engage in this conversation, even if we risk taking away people's comforting illusions. To some extent, though, it's a moot point, because, as I mentioned earlier, it is far from obvious that the belief in an afterlife actually provides much comfort anyway. Not when it really comes to the crunch. It's not as if we can

look at a grieving wife or husband, child or parent, and say: "This person seems to coping well with his loss. He must believe in an afterlife." And it's not as if we can look at another and say: "This person isn't coping at all. She must be an atheist." Afterlife beliefs *might* be a source of some solace, but there's certainly room to doubt that they are. And this tells us something important. It tells us that, even if these beliefs really are comforting, they couldn't be hugely comforting. If they were, it would be plain for all to see, and there wouldn't be room to doubt it. Thus, we may conclude that afterlife beliefs are minimally comforting at best. At first glance, this is somewhat surprising. Many afterlife beliefs look like they're custom made to provide comfort. So why aren't people comforted? There are many possible answers to this question. One answer, though, is this: People don't really believe. Not completely. They might talk the talk, but when it really comes down to it, they can't quite walk the walk. If this is correct, then the contributions in this volume will not and cannot take away anyone's belief in an afterlife, because most people don't really believe anyway. At the most, they may just help people to admit to themselves what they already know to be true. Life ends.

NOTES	[B02.37]
1. Anthropologist Stewart Guthrie (2007) has an excellent discussion of the traditional theories of religious belief.	[B02n1]
2. In architecture, a spandrel is the space that forms between a curved archway and a rectangular surround. This space has no function, but is simply a byproduct of other aspects of the structure (i.e., the arches and surround). Gould and Lewontin used the term to describe any aspect of an organism that has no <i>biological</i> function, but is a byproduct of other aspects of the organism that <i>do</i> have such a function.	[B02n2]
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BIOGRAPHICAL DETAILS

[B02.36] Steve Stewart-Williams is a lecturer in psychology at Swansea University in Wales. Originally from New Zealand, his writing and research cover a diverse range of topics, including the placebo effect, the evolution of human altruism and mating behavior, and the philosophical implications of evolutionary theory. He is the author of the book *Darwin, God and the Meaning of Life: How Evolutionary Theory Undermines Everything You Thought You Knew* (2010).