

human nature in interaction with society and with the world' (p. 7). This duality is, I think, misleading. It is quite intelligible to suggest that religion could be both an engagement, by certain receptive persons, with a transcendental reality, where this engagement is affected by human biology in social and historical context. The fifth-century Christian mystic Denys, for instance, emphasised that religious belief is structured by our perceptual, cognitive, and linguistic capacities, as well as by our wider social and historical context. Hinde's claim that *either* religion is what it claims to be – communion with transcendental realities – *or* that it is a psychosocial phenomenon polarises the discussion. And since he has already rejected the transcendental interpretation, the only interpretation left is the naturalistic approach, one featuring, amongst other things, an 'evolutionary history of gods' (p. 65) and, into the future, 'a cost/benefit analysis of the impact of Christianity' (p. 251).

There is much to learn from this book. It provides a useful survey of contemporary naturalistic approaches to religious belief and practice and the concise length of the chapters, plus the handy summaries, should earn it a place on philosophy of religion reading lists. Its scholarly and pedagogical utility aside, though, Hinde will not succeed in persuading religious persons of the falsity and disutility of their beliefs. Certainly one would not be persuaded of his conclusion that 'ultimately we must face the fact that it is up to us, that we cannot hope for help from above' (p. 262). Anyone seeking an introduction to contemporary naturalistic theories of religion will find this an excellent resource; however, only those already firmly in the naturalistic camp will find it persuasive.

HELEN DE CRUZ

University of Oxford & University of Leuven

Aku Visala, *Naturalism, Theism and the Cognitive Study of Religion: Religion Explained?*, Ashgate, 2011.

Theists and atheists continue to debate the cognitive status of religious belief. Is theism justified in the light of theories that explain religious beliefs as the result of natural cognitive capacities? This question has been around at least since William James wrote *The Varieties of Religious Experience* (1902). James believed that religious experiences (especially

mystical experiences) were central to explaining religion. Using medical knowledge available at the time, as well as written sources about mystics, James argued that religious experiences are caused by natural medical conditions, such as epileptic seizures. Nevertheless, he did not think that the psychological origin of religious beliefs debunks these beliefs. Today, the cognitive science of religion (CSR) no longer considers mystical experience (as caused by exceptional medical conditions) to be a central element of religious belief. CSR scholars argue that religion rests on mundane cognitive capacities that are present in all neurotypical humans, and that arise early and spontaneously in development. Despite this shift in how psychologists conceptualize the causes of religious belief, the question of whether or not cognitive approaches to religion undermine the rationality of religious belief remains alive and well. If the religious beliefs we see across cultures are indeed rooted in normal, everyday cognitive capacities (which are not specific to religion), does this undermine their rationality?

Aku Visala's *Naturalism, Theism and the Cognitive Study of Religion: Religion Explained?* (henceforth NTCR) is one of the first monographs to explore this question in depth – other discussions on the philosophical implications of cognitive science for theism can be found in edited volumes, such as *The Believing Primate* (edited by Jeffrey Schloss and Michael Murray, 2009, OUP). Visala, who is a theologian by training, focuses on the implications of CSR for Christian theism. The central aim of NTCR is to approach the rationality of theism in the light of CSR. Visala does not argue for the truth of (Christian) theism in the light of CSR, but rather, aims to 'explore what consequences CSR would have for theism if both were true' (p. 13). He argues that we need to make explicit the metaphysical assumptions (in particular physicalism, or in his terms, *strict naturalism*) that underlie CSR which make it difficult to evaluate the implications of CSR for theism. He outlines an alternative philosophical framework that he terms *broad naturalism*, under which the implications of CSR for theism may be more properly assessed.

The first two chapters of NTCR provide a comprehensive overview of CSR. As Visala acknowledges, it is not a well-developed research program with unifying theories and assumptions, but rather, an emerging interdisciplinary endeavour, with roots in anthropology, cognitive psychology and developmental psychology. Within the field there are several – sometimes mutually incompatible, mostly not integrated – theories about why humans have religious beliefs. Visala devotes most

of his attention to what he calls the standard model of CSR, as developed by Scott Atran, Pascal Boyer, Justin Barrett, and others, and he pits this program against other approaches to religion, such as the hermeneutic approach in anthropology. He notes that CSR has a physicalist ontology: CSR scholars hold that religious ideas, like other thought processes, can ultimately be reduced to brain states.

The standard model of CSR argues that religious beliefs arise and persist because of their fit with the structure of human cognition. Most CSR scholars endorse some form of the modularity of mind thesis, which stipulates that human cognition is guided by specialized inference systems, including an ability to detect agents, intuitive psychology, intuitive biology and intuitive physics. Religious ideas are culturally successful because they latch onto these specialized inference systems. First, they are minimally counterintuitive, i.e., they minimally violate the expectations we have about our physical, psychological and biological surroundings (e.g., a ghost violates intuitive physics by walking through walls). Second, they are mainly about agents, which humans are prone to infer; humans possess a hyperactive agency detection device. We are prone to infer the presence of agents even if there is little evidence for their existence. Moreover, supernatural agents have a rich mental life; we can attribute beliefs, desires and intentions to them, and we can make other inferences about them. Some of the theoretical assumptions in CSR have not been subject to empirical testing. Visala briefly mentions that the hyperactive agency detection origin of religious beliefs, one of the central assumptions of CSR, is currently without substantial empirical support. This is clearly worrisome, for if the central theories of CSR have little empirical support, is the field mature and are its results secure enough to engage in discussions on whether or not CSR is compatible with theism?

Chapter 3 argues that research in CSR is driven by a strict naturalist program. Strict naturalism is understood as a commitment to scientism (scientific enquiry has priority over all other enquiries), physicalism (all entities and processes are physical processes or reducible to physical processes; the physical realm is causally closed; higher-level states like consciousness are ultimately explicable in terms of physical states), and Darwinism as the primary framework for scientific and philosophical enquiry. This strict naturalism places severe constraints on the explanations that CSR scholars can invoke, as they can only accept

physical causes. Visala concludes that strict naturalism, once accepted, necessarily leads to a methodologically atheistic science of religion.

In chapter 4, Visala outlines an alternative framework, *broad naturalism*. Broad naturalism does not subscribe to the causal closure of the physical domain; for instance, broad naturalists believe that mental states can have true causal power. As Visala acknowledges, this position is somewhat awkward, constantly 'in danger of lapsing either into reductive materialism or some form of dualism or ontological pluralism' (p. 114). This problem, however, can to some extent be avoided, if we understand broad naturalism simply as scientific practice that does not have a strong commitment to reductionism and the causal closure of the physical. To flesh this position out in more detail, Visala relies on interventionist models in scientific explanation. Strict naturalism fits well with causal-mechanical models in philosophy of science as it attempts to identify physical mechanisms to explain phenomena. By contrast, the interventionist approach establishes causes through intervention: if, by changing A we produce a change in B, we can posit a causal relationship between A and B. In contrast to causal-mechanistic approaches, the interventionist approach does not require that one provide an account of a chain of physical events to link cause and effect. Interventionism thus allows for non-physical explanations, such as personal-level explanations. For instance, one could explain why someone is a religious believer rather than an atheist in personal terms: 'When we disconnect explanation from physical interaction [...] then in the case of John's belief in God we can simply say that cognitive mechanisms do not give us what we want. Cognitive mechanisms surely are among the causes of John's belief in God but they are not explanatorily relevant for our question (that is, why does John believe, rather than not believe, in God)' (p. 150). Visala thinks that CSR explanations are relevant for explaining religious belief on a population level, e.g., why afterlife beliefs are culturally widespread, but not on a personal level, e.g., why John believes in an afterlife. CSR scholars would probably object to this distinction between personal and scientific explanations. Given that many of them follow Dan Sperber's epidemiology of representations, their aim is precisely to explain how religious beliefs get spread at the population-level by examining how *individual minds* (like John's) understand and transmit religious beliefs – the cognitive mechanisms *are* therefore explanatorily relevant, even if they may not be explanatorily exhaustive.

Visala does not think there is anything wrong with naturalism as a methodological position, but takes issue with the implicit ontological naturalism that underlies CSR. But once this metaphysical baggage is dropped, how should CSR scholars proceed? As most of the discussion in chapter 4 is not specifically centred on religion, but rather on the problem of mental causation, this question remains unanswered. The parallels between mental causation and religion (e.g., personal level explanation) do not warrant that a discussion on physicalism and CSR is entirely couched in terms of the problem of mental causation, as Visala does. There is more to religious belief and naturalism than the problem of mental causation.

Chapter 5 explores the implications of CSR for theism. Do CSR theories affect the rationality of theism negatively, positively, or are they neutral with respect to it? Visala observes that CSR scholars themselves are not in agreement about this, probably as a function of their own religious beliefs (including atheism). He distinguishes three possible relationships between theism and CSR:

- (1) The falsity of religion thesis: CSR theories are incompatible with the core worldview propositions of theism, and also negatively affect its auxiliary views.
- (2) The religious relevance thesis: CSR theories are compatible with the core worldview propositions of theism, and are either positively or negatively relevant to its auxiliary propositions.
- (3) The religious agnosticism thesis: CSR theories are compatible with the core worldview propositions of theism, and are not relevant to its auxiliary propositions.

Visala considers arguments in support of (1), and pays much attention to unreliability arguments, which hold that evolved inference systems do not reliably track objective truth. Such arguments, however, are currently mainly directed against moral realism (see e.g., the anti-realist work of authors like Sharon Street and Richard Joyce). Visala does not make explicit to what extent these debunking arguments against moral realism can be transferred to religious beliefs. Are the worries for moral realism and religious realism analogous? If not, where are the disanalogies? A discussion of these issues would have been welcome. For CSR, there seem to be few authors who explicitly endorse position (1), even among atheist writers. For instance, Daniel Dennett (*Breaking the Spell*, 2006: 25) wrote, 'Notice that it could be true that God exists, that God is indeed the

intelligent, conscious loving creator of us all, and yet still religion itself [...] is a perfectly natural phenomenon.' It seems that (1) remains difficult to maintain, as (at least in a logical sense) there is no incompatibility. For, in order to endorse (1) one would have to interpret the results of CSR in a strictly naturalistic sense, and (since this rules theism out by fiat) this would be question begging.

What of positions (2) and (3)? Visala thinks that (3), the position advocated by William James, goes too far. Most of chapter 5 focuses on position (2) and asks whether CSR, even if compatible with theism, may perhaps lower (or alternatively, increase) the plausibility of theism. NTCR discusses two analogies, both by Peter Van Inwagen, that consider the relationship between theism and CSR, the *bat urine analogy* and the *car heating analogy*. Each of these elicits quite different intuitions about whether or not theism is compatible with CSR. The bat urine analogy considers a weeping Madonna statue in a church. After investigation, it is found that the tears are in fact bat urine, which drips onto the statue from bats that nestle on the church ceiling. A supernatural explanation is not logically incompatible with this observation – perhaps God made the bats nestle in that exact spot so that the statue would appear to be weeping. But this explanation is somehow not very compelling. Van Inwagen's second analogy seems to elicit quite different intuitions. Here, we have a car that produces heat as a by-product of the functioning of its motor. Car designers use this by-product to produce effective car heating systems. In a similar vein, the standard model of CSR, according to which religion is a by-product of cognitive capacities that are not specific to religion, such as agency detection, could in principle be incorporated into a larger theistic framework. God could have, through evolutionary processes, allowed belief in him to result as a by-product of normal cognitive systems. Such positions have been defended, for instance, by Justin Barrett and Kelly James Clark. They have argued that CSR actually offers empirical support for Reformed epistemology, since it indicates that people have an untutored, spontaneous belief in God, similar to other non-self-evident beliefs like our belief in the existence of an external reality or the existence of other minds.

Visala discusses two difficulties for this Reformed interpretation of CSR. He argues that if theistic belief is the result of purely naturalistic processes (even granting an ultimate theistic first cause), our religious experiences are ultimately not experiences of the divine. Moreover, these evolutionary processes, described by CSR, only make it probable

that people acquire religious belief but not inevitable – Reformed epistemologists may not like that God takes such risks. This latter problem does not strike me as a particular problem for the compatibility of CSR and theism, as it does not add anything new to the problem of divine hiddenness. The first worry Visala voices merits closer philosophical scrutiny and is also related to the problem of divine hiddenness: if religious experiences can indeed be explained as the result of natural processes, we are not experiencing God directly, but only think that we are. Under this view, God is a *deceptor Deus*, who fools us into experiencing him directly. I suggest three responses the theist might offer. One would be to say that religious experiences are really experiences of God, albeit brought about through secondary causal processes – a Thomistic framework that regards natural processes as actions of God does not consider natural laws and divine action as competing explanations. Another is to argue that, since one does not need to accept the causal closure of the physical domain, it may be possible that some intense religious experiences are the result of a direct experience of God, even if our more everyday religious feelings (such as the intuition that God exists) are the result of purely secondary causes. Under such a view, God does not deceive theists who, as a result of the structure of their cognitive architecture, believe that God exists; and he can still have more direct interventions on some occasions (e.g., mystical experiences). Thirdly, a theist could invoke overdetermination: natural causes may cause religious beliefs in conjunction with direct divine intervention, so religious experiences are both natural phenomena and supernaturally caused. These suggestions do not exhaust the design space of possible theistic responses. Visala raises, but does not answer, an important question: how can we conceptualize divine action with respect to religious belief and experience in the light of CSR?

NTPCR is a valuable addition in the ongoing discussions about the implications for theism of scientific approaches to religion. Visala has successfully demonstrated that the strict naturalism that underlies CSR makes it difficult to properly assess its implications for theism. The exploration of alternative philosophical conceptions of causation in chapter 4 provides an intriguing framework for more theist-friendly interpretations of CSR. However, I would like to have seen more explicit engagement with the empirical studies of religion, particularly in chapters 4 and 5. Whereas Visala demonstrates a thorough knowledge of the current state of the art in CSR in the first two chapters, there is hardly

any mention of specific CSR theories in the remainder of the book. His remains a high-level approach on the strict naturalistic assumptions of its researchers, which seems to me, given the disunity of the field, too sweeping an approach – a more fine-grained case-by-case examination would have been more appropriate. For one thing, as Visala points out, CSR scholars themselves do not agree on whether agnosticism, theism or atheism are the appropriate conclusions to draw from CSR research.

An unanswered question is, for instance, whether by-product accounts of religion and adaptationist accounts have different implications for the justification of religious beliefs. Adaptationist theories of religiosity are discussed in chapter 2; they are a minority position in CSR but are gaining prominence. Adaptationist theories argue that religion is a cultural or biological adaptation that helps people to cooperate better. Using such theories, one might go one step further than the car heating analogy by Van Inwagen and argue that God may have instilled religious belief in humans through a theistic evolutionary process for a double purpose: to have knowledge of him and to be able to live together more harmoniously. Another concern is that Visala seems to take a causal, reliabilist account of truth for granted in his discussion of the justification of religious beliefs. But there are other models of justification (and indeed of knowledge) that do not depend on the existence of a proper causal link between the external world and beliefs, such as pragmatic or coherentist approaches. For instance, adaptationist theories of religion may provide a pragmatic model of justification. In this view, some people may be justified in believing in God because it confers various (fitness, social) benefits to them.

To conclude, NTCR blends philosophy of science, philosophy of cognitive science, and philosophy of religion in an engaging way. The scope of the book is impressive, and Visala's expertise in these fields is evident. Due to the rather high-level discussion of naturalism, he leaves open the question of how specific theories in CSR can relate to theism. His conclusion that CSR may negatively affect arguments for the rationality of theism provides a new angle for discussions on divine hiddenness.