# The New Scientific Study of Religion Moving On

*with Lluís Oviedo, "Challenges, Opportunities, and Suggestions for a Renewed Program in the Scientific Study of Religion"; Robert N. McCauley, "Recent Trends in the Cognitive Science of Religion: Neuroscience, Religious Experience, and the Confluence of Cognitive and Evolutionary Research"; Connor Wood, "Antistructure and the Roots of Religious Experience"; Konrad Szocik, "Critical Remarks on the Cognitive Science of Religion"; Hans Van Eyghen, "Religious Belief as Acquired Second Nature"; and Léon Turner, "Isolating the Individual: Theology, the Evolution of Religion, and the Problem of Abstract Individualism."*

## ISOLATING THE INDIVIDUAL: THEOLOGY, THE EVOLUTION OF RELIGION, AND THE PROBLEM OF ABSTRACT INDIVIDUALISM

by Léon Turner ⓘD

*Abstract.* Debates about the theological implications of recent research in the cognitive and evolutionary study of religion have tended to focus on the question of theism. The question of whether there is any disagreement about the conceptualization of the individual human being has been largely overlooked. In this article, I argue that evolutionary and cognitive accounts of religion typically depend upon a view of cognition that conceptually isolates the mind from its particular social and physical environmental contexts. By embracing this view of the mind, these accounts also unwittingly embrace an abstract individualist view of individual personhood that Christian theologians have explicitly battled against. Taken as a whole, the field leaves sufficient room for supplementary theories that are compatible with theological accounts of the relational individual, but in practice, no effort has been made to engage, or even to accommodate, any other view of individual personhood.

*Keywords:* abstract individualism; evolution of religion; individual; mind; person; relationality; theological anthropology

Concluding a discussion of arguments against theism rooted in cognitive and evolutionary explanations of religion, Aku Visala (2011) argues that prior "philosophical background assumptions" (192), particularly

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one's commitment to methodological naturalism, are likely to determine whether theism is bolstered or undermined by the cognitive science of religion (CSR). However, having focused solely upon one particular dimension of the question of intertheoretical compatibility—the implications of CSR, specifically, for the truth, falsity or rationality of belief in God or gods—he cautions that religion, theology, and the scientific study of religion are each so complex that the broader issue of whether cognitive scientific and other evolutionary accounts of religion raise problems for theologians is far from settled. He writes, "Even if cognitive and evolutionary explanations of religion might not have religious relevance for theism per se, they might be relevant for some specific theological claims about the nature of human beings, morality, freedom, sin, and so on" (Visala 2014, 59). Here, I intend to address one such issue, which has not yet been examined in this interdisciplinary context. My focus is upon the inherent individualism of recent evolutionary accounts of religion and the problems this may raise for Christian theological notions of individual personhood. I will argue that most cognitive and evolutionary accounts of the origins and functions of religion are entirely consonant with, and may even depend upon, a certain view of mind and cognition, which conceptually isolates the mind from its particular social and physical environmental contexts. Such a view of human psychology is in no way unusual across the natural and human sciences, but it tacitly supports an abstract individualist view of personhood that a certain strand of Christian theology, championed perhaps most vociferously by David Kelsey, has explicitly battled against. Taken as a whole, the field leaves sufficient room for supplementary accounts of both cognition and religion that are compatible with some recent theological accounts of the relational individual, but in practice no effort is made to engage, or even to accommodate any other view of individual personhood. I suggest that establishing intertheoretical compatibility, in this case, is an unhelpfully low hurdle when examining the relationship between recent theological and evolutionary theses.

### Abstract Individualism

The anthropologist James Laidlaw, arguing that humanistic approaches to religion contrast with CSR at a more fundamental level than their views about what constitutes religion, suggests that CSR is committed to "regarding thought as information processing and therefore to regarding humans (like other animals) as, in this respect, like certain machines" (2007, 214; also see Barrett 2010a). For Laidlaw, this is deeply problematic. Historically cultivated contingent traditions, institutions and practices, he argues, inform and sustain religious languages, motivations and emotions to the extent that they "cannot be adequately described purely in terms of cognitive mechanisms internal to individual minds" (225). Religious

traditions, he continues, are "particularly clear and strong examples of those aspects of language, meaning, and therefore thought and experience that are intersubjective, which is to say 'not (only) in the head'" (225). According to Laidlaw, this exposes a fundamental disparity between humanistic and cognitive approaches to religion. If structural features of the mind play a key role in the way that individuals represent the world, he argues, and this structure is more or less universal, then CSR can only address regularities in the world's religions. Consequently, those aspects of religion that CSR is unable to explain, including distinctive historically contingent features of particular religions, are deemed incidental to the very conception of religion.

Laidlaw's anxieties about the damage done to the concept of religion when it is conceived in isolation from the historical contingencies of particular religious traditions will strike a chord with many who wish to resist the psychologization of the human sciences. And in criticizing CSR for its treatment of human beings as machine-like entities, which process information in a manner prescribed by cognitive structures and processes over which they have no conscious control, Laidlaw also touches on an issue that has vexed many contemporary philosophers—the plausibility of the computational metaphor for mind and cognition. Whether the treatment of cognition as internal computation unhelpfully constrains CSR's conception of religion, as Laidlaw suggests, or whether it rescues religious studies from a perceived "slide to relativism" as Edward Slingerland (2008) suggests, its implications for the concept of the human person are at least as serious as its implications for religion. This, in turn, has potentially far-reaching implications for the relationship between CSR and theology, though to date these have not yet been clearly spelled out. Here, we will focus on one single dimension of this issue—its impact upon theological concepts of human individuality. More specifically, we will ask whether the evolutionary and cognitive study of religion tolerates, supports, or even reinforces certain aspects of so-called abstract individualism, the underlying principles of which are almost universally rejected by a growing number of Christian theologians.

First, however, it is important to be clear about precisely what the term "abstract individualism" implies, and why it raises the hackles of so many contemporary theologians. Abstract individualism, Penny Weiss suggests, "considers individual human beings as social atoms, abstracted from their social contexts, and disregards the role of social relationships and human community in constituting the very identity and nature of individual human beings" (1995, 163). Abstract individualism does not correspond to any particular view of human nature, but rather represents a view of how individuals ought to be conceived. It stands behind attempts to understand human cognition, behavior, culture and society—in short, the whole panoply of human affairs—purely in terms of certain universal

characteristics of individual human beings, abstracted from any particular context. Describing the basic tenets of abstract individualism, Lukes (1973, 43) writes, "[I]ndividuals are pictured abstractly as given, with given interests, wants, purposes, needs, etc.; while society and the state are pictured as sets of actual or possible social arrangements which respond more or less adequately to those individuals" requirements. Crucially, Steven Lukes argues, "the relevant features of individuals determining the ends to which social arrangements are held (actually or ideally) to fulfill, whether these features are called instincts, faculties, needs, desires, rights, etc., are assumed as given, independently of a social context. This givenness of fixed and invariant human psychological features leads to an abstract conception of the individual who is seen as merely the bearer of those features, which determine his behavior, and specify his interests, needs and rights" (1973, 43). From this perspective, individual persons are portrayed as constellations of pregiven characteristics, traits, and dispositions, and in every way that matters one individual may be substituted for another for a given explanation of a certain aspect of human life.

In the words of Kelsey, who has done much to expose the shortcomings of abstract individualism from a Christian perspective, the individual human being is seen as "a center of consciousness whose instincts, faculties, needs, desires, rights, interests, purposes, and on some views, its inherent sociality, and so on, are given independently of, and logically prior to, its social, cultural, and historical contexts" (2009, 400). The boundaries between individuals and their environments at any given moment are drawn very sharply here so that "individuality" is almost synonymous with "separateness." Individuality is the numerical distinctness of individuated beings that are nonetheless all examples of the human species. Consequently, suggests Lukes, echoing David Hume, individuals seem "like onions which, once their outer, culturally-relative skins are peeled off, are 'much the same in all times and places'" (1973, 151). This is the concept of individuality that is commonly supposed to characterize the "modern" concept of the person as a discrete autonomous center of consciousness (see Welker 2000).

For Lukes, the independence of concepts of the individual from particular environmental contexts is framed specifically by a contrast between the transience and instability of extrapersonal "social arrangements" and the fixity and givenness of intrapersonal psychological attributes. Locating individual human beings in their historically contingent contexts means conceptualizing them not as centers of consciousness bearing particular universal properties, or as specific constellations of particular attributes shared by certain groups of people, but as both unique and inherently relational beings. From this perspective, a particular human being is not an individual simply because he or she has a distinctive body, mind, and

location in space and time, though these things are undeniably important aspects of individuality, but because he or she exists as part of distinctive, socioculturally, geographically, and historically contingent contexts. For Lukes, this is the concept of the *concrete person*: "Seeing [individuals] as persons requires us precisely to regard them not *merely* as the bearers of certain titles, the players of certain roles or the occupiers of certain social positions, or as the means to given ends, but as concrete persons who— for one reason or another, in one fashion or another—bear those titles, play those roles, occupy those social positions, or serve those ends" (1973, 146–47).

Although, as F. Leron Shults (2003) acknowledges, Christian theology cannot be considered entirely blameless for the rise of individualism, and very strong individualist tendencies remain evident in many areas, there is a wide consensus that abstract individualism represents a major theoretical and ethical problem (Turner 2013). Hostility to this idea is perhaps most clearly expressed in the Greek Orthodox tradition, but it is supplemented by a remarkably cross-denominational contemporary movement equally concerned to defend the relationality and particularity of human being (see McFadyen 1990; Schwöbel 1991; Zizioulas 1991; Kelsey 2009). For Kelsey, like Lukes, this notion crystallizes in the concept of "the concrete individual," which "seeks to conceptualize individual human being in its concrete social, cultural, and historical locatedness rather than by abstract-ing it from its locatedness" (400). From this perspective, individuals cannot be "wholly reducible to mental constructs abstracted from concrete social entities" (Kelsey 2009, 400), but are rather seen as *constituted* in part by their particular relational contexts.

Although Kelsey does not dwell on the important distinction between the idea that individuals are in some sense "shaped" by their contexts and the idea that individuals are "constituted" by their contexts, these must not be conflated.[1] In the former case, even though individual human beings might interact with their environments and subsequently be transformed by them in important ways, they might still be conceptualized independently from those environments. By contrast, the latter makes the individual conceptu-ally inseparable from historical context. The distinction between "shaped" and "constituted" matters greatly to theological conceptualizations of in-dividuality (and to social constructionists everywhere; see Gergen 1994), not least because only the constitutive view makes particular historically contingent relations integral to the very concept of the individual, rather than merely things that happen to people. For Kelsey and the huge majority of other contemporary Christian theologians, particular relations are not incidental or nonintegral properties of persons. Nor are they properties like height or age, which differ to some extent between individuals, but which are not theoretically unique to any given individual.

## Cognitive Science and the Abstraction of Mind

So, does Christian theology's long-standing hostility toward abstract individualism raise problems for the peaceful coexistence of recent cognitive and evolutionary accounts of religion and theological anthropology? We should note first that neither CSR nor recent evolutionary accounts of religion explicitly endorse concepts of the abstract individual. If they did it would surely represent a serious obstacle to intertheoretical harmony, but even Slingerland's notorious claim that people are "robots all the way down" (2008, 394) is intended to strengthen the case for including psychological theories and methods in the study of religion rather than advance a philosophical argument about the concept of individuality, even if it provocatively emphasizes the mechanistic dimensions of human cognition and behavior.

However, the absence of explicit support for abstract individualism in the cognitive and evolutionary study of religion should not be mistaken for explicit opposition. Actually, abstract individualism has never been discussed in this field at all, let alone recognized as a potential problem. This is not meant as a criticism of CSR, as there is no intrinsic reason for CSR to care about such things. In its functional explanations of religion, CSR is very much concerned with the study of individual human beings and the ways they interact with each other and their environments in various circumstances, but the notions of personal relationality and particularity are simply not directly relevant to CSR's theories of the origins and evolution of religion. Unfortunately, as far as certain strands of theological anthropology are concerned, the theological implications of implicitly embracing, or even unwittingly reinforcing concepts of the abstract individual, are no less severe simply because they were unintended. It is the possibility that CSR may implicitly accept, and perhaps even reinforce, certain underlying principles of abstract individualism that will be explored here. I will argue that CSR's primary contribution to religious studies lies in its identification of certain universal natural cognitive structures, processes, and behavioral dispositions that are used in conjunction with a range of evolutionary theories to explain the origins of the earliest religious ideas and their subsequent social functions. Key theories, I will suggest, still lean heavily upon traditional cognitive scientific paradigms and a classical understanding of cognition as internal information processing, according to which individual cognitive systems are conceptualized in isolation from any particular physical or social context in a manner that is, by and large, wholly consonant with abstract individualism.

Before we come to examine specific cognitive and evolutionary theories of religion (or aspects of religion) in detail, the ways in which traditional cognitivism helps reinforce abstract individualism requires further explication. Whereas everyone accepts that cognitive processes are strongly

influenced by social and other extrapersonal phenomena, the behavioral and brain sciences have tended to treat such phenomena as the raw stimuli for internal mental processing—as the causes or stimuli of particular cognitive processes, not as constituent parts of cognitive activity itself. As Robert Wilson and Andy Clark explain, for most traditional cognitive scientists "cognition takes place inside the head, wedged between perception (on the input side) and action (on the output side), constituting what Susan Hurley (1998) has called a kind of cognitive sandwich" (2009, 57). For the classical cognitive scientist, the mind is a self-contained system that accepts inputs and produces outputs entirely on its own terms. Hence, Michael Devitt is able to say "The person and all her physical, even functional, duplicates must be psychologically the same, whatever their environments. Mental states must be individuated according to their role within the individual, without regard to their relations to an environment" (1990, 377). From this perspective, differences between the minds of different individuals might be described as differences between the contingent states of a pregiven system. Cognitive systems are conceptualized in terms of enduring, universal, transcendent, cognitive structures, states, processes, rules, and dispositions, which just so happen to be instantiated slightly differently in different individuals. This abstract conception of the mind and cognition is entirely consistent with the idea that whatever experiences a given human being might have, whatever roles they assume, and whatever relationships they might form with others, are all incidental to their being individual persons rather than constitutive of their individual personhood. This is only to say that, according to traditional cognitivist principles, cognitive systems, and therefore individual human beings can be conceptualized perfectly well in isolation from any particular cognitive states, experiences, or relationships. These are things that happen to individuals, which are assumed to exist prior to, and independently of, any particular cognitive states, experiences, or relationships.

This portrait of the individual as a self-contained entity that exists independently from any given experience or relationship is reinforced by the principle that cognition depends upon universal structures and processes following clearly defined rules. The philosopher and psychologist Rom Harré, who is fiercely critical of the individualism that he sees ingrained in experimental psychology, argues that "Academic psychologists, particularly those who work in the 'experimental' tradition, make the implicit assumption that men, women and children are high-grade automata, the patterns of whose behavior are thought to obey something very like natural laws ... It is assumed that there are programmes which control action and the task of psychology is to discover the 'mechanisms' by which they are implemented" (1984, 4). For Harré, this psychological tradition is unsatisfactory in a great many ways, but especially in its failure to do justice to the essentially social nature of individual being. Experimental

psychologists in general, he suggests have perpetuated a perniciously individualistic philosophical tradition by treating human action as "the product of individual mental processes" (8). From this perspective, human beings are treated as discrete, independent entities, at least as far as their psychological constitution is concerned. They are shaped by extrapersonal forces in many important ways, but they are understood first and foremost as autonomous centers of consciousness, conceptually separable from the experiences they have had and the relations they enjoy with others.

Harré himself is a fervent advocate of a particular form of social constructionism, but a range of alternative psychological approaches takes similar issue with many of the underlying principles of classical cognitive science. Much of Harré's critique is, for example, echoed strongly by supporters of a sprawling and heterogeneous research program centered upon the thesis of the embodied mind (see Varela, Thompson, and Rosch 1991; Gallagher 2005; Clark 2008; Rowlands 2010; Shapiro 2011), which has sought to establish the roles played by extracranial bodily, social, and other environmental structures and processes in cognition. Although this literature has not concerned itself explicitly with critiques of abstract individualism, they share many of the same targets, especially the conceptual isolation of the mind, which broadly corresponds with the view that cognition takes place exclusively in the head.

How we conceptualize individual cognitive structures and processes matters greatly for our concepts of individual persons. After all, as Wilson and Clark observe, cognition "both stems from and generates the activities of physical individuals located in particular kinds of environments" (2009, 56). Different conceptions of cognitive systems, then, should have quite significant implications for how we think about what human beings are, why they behave in the ways they do, and what sorts of relationship they enjoy with each other and with their environments. At the very least, theories and models of cognition clearly place certain constraints upon our concepts of individual personhood, and not just as regards theories of human nature. Potentially, they also constrain our most basic opinions about what constitutes an individual, with some radical externalist models, of cognition arguing that external objects may, under some circumstances, even be seen literally as extensions of the cognitive system (e.g., Clark 1999), and, therefore, the individual person. Others (e.g., Thompson 2007; Fuchs 2009) have reevaluated the role of emotion in social cognition with similar implications for understanding processes of individuation. In many ways, in fact, traditional cognitivism, with its focus on discrete cognitive systems and structures and formal computational processes, has been rapidly ceding ground in recent years (see Gibbs 2005; Robbins and Aydede 2008), and it seems likely that changing views of cognition may lead to a genuine revolution in the way we understand individuals. As Clark and David Chalmers (1998) write in their now classic defense of externalism, "certain

forms of social activity might be reconceived as less akin to communication and action, and as more akin to thought. In any case, once the hegemony of skin and skull is usurped, we may be able to see ourselves more truly as creatures of the world" (18).

Although traditional cognitivism places certain constraints on the concept of the individual, however, it cannot be said strictly to entail abstract individualism. Partly, this is because it has little to say about noncognitive aspects of individual human being. Some aspects of individuals might be conceivable in isolation from historically contingent contexts, without necessarily entailing that all can. It is even perfectly possible to embrace many of the key themes of traditional cognitivism, including a degree of mental modularity, and the notion that some cognition is embodied and extended into the environment (see Rowlands 2009), but more often than not traditional cognitivism shuns this synthetic approach, and some advocates of psychological internalism remain vehemently opposed to it. The extent to which this brand of cognitive science might be said to reinforce abstract individualism, then, depends largely on how far the computational metaphor for mind and Harré's automaton metaphor for the individual person are pushed. In other words, the more successful traditional cognitivism is in explaining human cognition, behavior, and culture in the absence of any alternative or supplementary cognitive theory, the more it appears to encourage the view that individuals can be conceptualized independently from any historically contingent environmental or social factors. There seems little chance of a consensus throughout the natural and human sciences on these matters, though it is quite clear that cognitive anthropology in general, and CSR in particular, is sufficiently impressed with the explanatory potential of cognitive science to have extended its reach deep into complex sociocultural phenomena. After all, if something as multifaceted and historically diverse as religion can be explained in this way, what possible circumstances might precipitate the need to look outside traditional cognitivism to explain anything else?

## The Origins of Supernatural Agent Concepts

Returning to consider the question of whether the cognitive and evolutionary study of religion embraces and perpetuates concepts of the abstract individual, it is clear the field is now so well developed and theoretically diverse that it should not be tackled as a single homogenous whole. With this in mind, we will briefly examine the major themes of a recent paper by Ara Norenzayan et al. (2016), which seeks to synthesize several major distinct strands of research into the evolution of religion into a single overarching account. Since my aim, here, is primarily to explore the implications of CSR's underlying cognitive scientific commitments for theological anthropology, the ensuing discussion is concerned with the description of how

cognitive science is employed rather than with the critical evaluation of CSR *per se*.[2]

Norenzayan et al. (2016) argue that their synthetic approach rests "on four conceptual foundations: (1) the reliable development of cognitive mechanisms that constrain and influence the transmission of religious beliefs; (2) evolved social instincts that drive concerns about third-party monitoring, which in turn facilitate belief in and response to supernatural monitoring; (3) cultural learning mechanisms that guide the spread of specific religious contents and behaviors; and (4) intergroup competition that influences the cultural evolution of religious beliefs and practices" (4). The first three of these conceptual foundations are the most relevant to our concerns in this article.

Foundation (1) draws upon the masses of empirical evidence collected over the last quarter century regarding the spontaneous formation of beliefs in supernatural agents, how they are represented and processed by individual minds after their acquisition, and those features of individual minds and religious concepts that make the propagation of some concepts rather more likely than others. The notion that the origins of recognizably religious beliefs can be traced to the emergence of certain proto-religious ideas (especially concepts of supernatural agents), the appearance of which was inevitable once the proper mental "tool-kit" had evolved, remains widespread in current research. According to Justin Barrett, "people believe in gods because gods gain tremendous support from the natural and ordinary operation of mental tools" (2007, 186).

Theory in this area is bolstered by considerable psychological research into content biases—predispositions toward forming, remembering, and transmitting mental representations with certain sorts of content. For example, extensive empirical support exists for the idea that supernatural agent concepts, simply by virtue of their so-called "minimal counterintuitiveness," are especially "attention-grabbing" (Barrett 2004). Here, the autonomy of the cognitive system is made quite explicit. From this perspective, particular cultural traditions have no role to play in determining which ideas are minimally counterintuitive and rich in inferential potential. That is determined entirely by internal cognitive processes operating against a background of universal assumptions about the natural world. Minimally counterintuitive concepts simply deviate in some sense from what is "expected" of them—"By departing systematically, but mildly, from established cognitive rules we use to understand and organize information in our environment, they achieve greater memorability" (Gervais et al. 2011, 394). As Barrett observes, "whether or not a concept is counterintuitive in this technical sense is largely or entirely independent of cultural context" (2007, 188).

This branch of CSR seems to lean quite heavily on precisely the model of mind that I have suggested reinforces concepts of the abstract individual.

Whether it is shoring up extant beliefs or generating new ones, all the tools the cognitive system requires to do its job exist, and function, independently of the external world. All the actual information processing takes place inside the head according to a well-defined set of universal internal "rules," and the environment is cast very much in a supporting role, as a cause, but not a constituent of particular cognitive states. Understood simply as "a human social environment complete with artefacts, language, and other symbolic communication" (Barrett 2010a, 171), culture may provide some of the basic resources necessary for the hyperaction agency detection device (HADD), theory of mind, and other cognitive devices to operate effectively—by helping to delineate the range of opaque environmental stimuli to which HADD instinctively responds, for example—but cultural processes, physical objects, and relationships with other people are certainly not seen as parts of the individual cognitive system. In short, there is nothing about this concept of cognition that is not consistent with the idea of the individual as an autonomous center of consciousness. That is to say, the features of cognitive systems that are relevant to the natural production of beliefs in gods and other supernatural agents are conceptualized entirely in terms of universal structures and processes abstracted from their sociocultural context, even if those structures and processes are continuously molded into particular forms as a result of environmental interactions. Whatever particular form a society takes, whatever its history, whatever sorts of relationships exist between individuals, and whatever historically contingent differences might exist between people by virtue of their different cognitive states, are not integral to the conception of the individual.

## SUPERNATURAL MONITORING

Research into the cognitive basis of belief in gods is also critically important to a second central pillar of the cognitive and evolutionary study of religion—accounts of supernatural monitoring. At the heart of Norenzayan et al.'s (2016) theoretical synthesis is the suggestion that religion effectively promotes prosocial behavior through promoting belief in supernatural entities, which are granted privileged epistemic access to the mental states of individuals, and which police morality and exact retribution upon transgressors of social and moral norms. The reduction in selfish behavior and increased social bonding resulting from cooperation among individuals (there are slight differences on this matter between Johnson and Krüger's (2004) supernatural punishment hypothesis [SPH] and Norenzayan's [2013] "big gods" theory) enhances social stability and, consequently, group prosperity relative to other communities of people. Experimental support for theories of supernatural monitoring is often considered to be very strong (see Johnson and Krüger 2004; Johnson and Bering 2006; Schloss and Murray

2011), as is anthropological and archaeological evidence (see Watts et al. 2015; Norenzayan et al. 2016; Peoples, Duda, and Marlowe 2016).

All varieties of supernatural monitoring theory are concerned with the significance of *belief* in supernatural punishment, and how those beliefs impact cooperative behavior. They all also recognize the importance of culture, not only in shaping particular beliefs in supernatural punishment, but also in the shaping of the social norms that members of a society are forbidden to violate. But they also all acknowledge that fear of supernatural punishment exploits a range of universal cognitive mechanisms. That does not mean that fear of supernatural punishment is itself universal or innate, only that religious beliefs can emerge and develop in such a way as to be able to perform this particular social function because of the sorts of minds human beings have. This is a fundamental presupposition of the entire field. Hence, quoting earlier research by Jesse Bering (2011, 434), Dominic Johnson and Bering note "supernatural punishment can only be an effective deterrent insofar as individuals are capable of reasoning that negative life events are caused by supernatural agents who have explicit *reasons* for bringing about such events" (2006, 225). They continue, "We appear to have an inherent cognitive tendency to search for reason and intentionality in life events, and to attribute positive and negative outcomes to supernatural agency" (225). Despite their focus on cultural group selection, Norenzayan et al. (2016) are clearly of a very similar opinion, arguing that certain cognitive "tendencies" underpinning feelings of being under human social surveillance have been "drafted by cultural evolution in more recent millennia to underpin particular supernatural beliefs, such as an afterlife contingent on proper behavior in this life" (4). Most important of these tendencies is considered to be the capacity to mentalize ("theory of mind"), which they take to be the cognitive basis for believing in and interacting with gods and spirits. A key means of establishing the existence of such tendencies in the laboratory involves examining the effects of religious priming on individuals' sense of being watched (see Norenzayan et al. 2013).

Once again, what matters for our current purposes is not the question of whether fear of supernatural punishment is universal or innate, or whether cultural group selection can explain the emergence of moralizing high gods, but rather the question of whether supernatural monitoring theories rest upon a model of mind and a view of information processing that offers implicit support to concepts of the abstract individual. Unsurprisingly, given the overlap between theories of supernatural monitoring and theories of the origins of beliefs in supernatural agents, this would appear to be the case. Fear of supernatural punishment is presented as a cognitive and behavioral product of a range of cultural and other environmental factors, which stimulate certain universal cognitive mechanisms. Religious beliefs perform their (in this case prosocial) functions by virtue of certain

information processing capacities that are presumably the same in all people, in all places, at all times. Clearly, a variety of different stimuli can give rise to fear of supernatural punishment, as is evidenced by the fact that different people at different times and in different places fear retribution from different gods as a result of transgressing different culturally specified social norms. But the cognitive structures and processes involved in each case are assumed to be the same, even if the precise internal mechanics of the structures and processes involved are still largely opaque.[3] That is to say that they are easily conceptualized in isolation from any particular context. The relevant stimuli are once again seen as causes but not constituents of particular cognitive states, and the individual differences between those states are incidental to the conceptualization of the minds of which they are parts. As with earlier research into the origins of belief in gods, there appears to be nothing in the study of supernatural monitoring that leaves space for interpersonal relations to play a constitutive role in individual cognition, and no reason why the individual should be understood as inherently relational. In short, there is nothing to suggest that anyone feels the need to accommodate an alternative model of mind that might distance the cognitive and evolutionary study of religion from concepts of the abstract individual.

### THE TRANSMISSION OF FAITH

So far we have focused upon the significance of universal cognitive mechanisms to CSR's attempts to explain the origins and social functions of religious belief. But the essence of Norenzayan et al.'s (2016) enterprise is the synthesis of what they call the by-product and adaptationist approaches. Consequently, they are as much concerned with "Ritual and devotional practices that effectively elevate prosocial sentiments, galvanize solidarity, and transmit and signal deep faith" (2016, 6) as they are with the study of the origins of supernatural agent concepts. In this context, religious behaviors contribute to group stability and harmony by operating as boundary markers between in-group and out-group individuals (Norenzayan et al. 2016), costly hard-to-fake signals of commitment (Sosis and Alcorta 2003; Sosis and Bressler 2003; Bulbulia 2004), and credibility-enhancing displays (CREDs) (Henrich 2009; Norenzayan 2013).

   In each case, religious behaviors help to identify their performers as members of a single group, and to establish their commitment to a common cause, thereby deterring free riders and enhancing in-group stability. With the exception of the costly signaling approach based in behavioral ecology (see Sosis and Bulbulia 2011, 7), most research into the roles played by religious behavior in promoting prosocial behavior suggests that religious behaviors are able to perform this crucial social function because people exhibit certain cognitive biases toward interpreting them in certain ways (see Norenzayan et al. 2016).

The study of ritual and other devotional behaviors in this manner helps explain why only a subset of all possible religious beliefs and behaviors are likely to be successful—why some beliefs become objects of faith rather than mere fantasies. Recent research has emphasized the need to supplement accounts of the roles played by content biases in the acquisition of religious beliefs with greater consideration of the sociocultural factors surrounding their transmission (see Gervais et al. 2011; Norenzayan et al. 2016). There appears to be broad agreement that natural cognitive mechanisms can be discerned, which make individuals favor information derived from certain sorts of context (see Gervais et al. 2011). The study of such "context biases" suggests that people exhibit a high degree of sensitivity to the context in which the information is presented, especially the identity, prestige, and competence of the individual who presents it (e.g., Henrich 2009; see Gervais et al. 2011). These biases help ensure the mass adoption and transmission of those beliefs and behaviors that fulfill certain internally specified criteria. But to explain how groups manage to deter free riding by those who feign certain beliefs, or peddle misleading information, Henrich (2009) and Norenzayan et al. (2016) point to the way that certain ritual behaviors might also act as CREDs. According to this perspective, people are likely to credit others with greater authenticity and authority if their verbally stated beliefs are accompanied by behavior that exerts a significant cost. Suggesting that "our capacities for cultural learning may have been shaped to weigh a model's CREDs in adopting and committing to culturally transmitted representations" (Henrich 2009, 249), Henrich goes on to present a detailed mathematical model of the cognitive mechanisms underlying what he describes as a "a CRED bias in cultural learning" (2009, 249), and to suggest that seeing religious rituals as CREDs, brings the study of ritual into the orbit of evolutionary theory: "From the perspective of a learner, the difference between Mickey [Mouse] and Yahweh, or Yahweh and Zeus, is that learners observe members of their social group, including their chosen models, performing CREDs. This makes religious commitment a cognitive, social and cultural evolutionary phenomenon" (258).

Clearly, the synthetic ambitions of Norenzayan et al.'s project means it continues to rely heavily on a specific concept of the individual mind, replete with a suite of universal cognitive tools or mechanisms, and abiding by universal rules of information processing. This continues to play a key explanatory role since the cultural evolutionary processes that lead to the differential selection of behaviors, which effectively buttress the beliefs that galvanize social solidarity, cannot operate in the absence of preexisting cognitive predispositions or preferences for some sorts of behavior over others. In this context, cognitive factors might only play a constraining rather than causative role—limiting the potential range of viable beliefs, behaviors, and credible sources of information—but the underlying concept of mind does not deviate from that which underlies foundational CSR research on

supernatural agents. This point is important given the superficially significant role apparently afforded to interpersonal relations in this area of CSR. The notion of CREDs seems to make use of what Kenneth Gergen (1994) called a "contextual" as opposed to "constitutive" understanding of relationality, or a "view of the individual self working outward towards relatedness" (215). Cultural phenomena and the behavior of other people are seen as causes of particular cognitive processes within the individual which result in particular beliefs and behaviors. They are not constituents of those processes, and so the individual mind remains conceptualizable in isolation from any and all sociocultural contexts. Again, where cognitive predispositions or biases come from is not really relevant to the question of whether the cognitive and evolutionary study of religion remains consonant with the principles of abstract individualism. It does not really matter whether we think of certain cognitive structures and processes as mental modules, whether they are genetically specified, or whether they are acquired in early development. What does matter is the fact that they are described in terms that are entirely consistent with what we described above as the "cognitive sandwich" model of cognition.

CONCLUSION

I have repeatedly stressed that, as far as theological anthropology is concerned, damage is done to the concept of the individual person by a concept of the cognitive system that insulates information processing activities from the extra-bodily environment. It is this that means the cognitive system must be conceptualized in terms of universal, acontextual structures and processes, which in turn has consequences for how we conceptualize the individual person, especially as regards the notion of constitutive relationality, but also for the idea of the particular individual. As far as recent theological concerns about relationality are concerned, the problem with the constraints placed upon concepts of the individual by traditional cognitivism lie with precisely how the relationships between individuals and their environments are conceived—as nonconstitutive. Nobody anywhere would disagree that the social and physical world exerts some sort of influence upon individual cognition, and, in some sense, helps shape individual persons.

I have also argued above that the preponderance of recent research in the cognitive and evolutionary study of religion does continue to make use of a concept of the mind that is consonant with concepts of the abstract individual. Returning briefly to Laidlaw's critique of CSR, an interesting parallel emerges between CSR's implications for the conception of religion and its implications for the conception of the individual. The focus upon fixed, invariant, internal processes leads to what many consider to be the inappropriate abstraction of, respectively, the concept of religion and the

concept of the individual. In response to arguments such as Laidlaw's, advocates of a CSR approach may plausibly argue that nobody really denies that religions are particular historically contingent phenomena. Addressing a related criticism, Jeffrey Schloss et al. (2010) write, "focusing on universals does not necessarily demote the importance of context. Some universals may actually highlight the significance of context because their emergence requires important contextual regularities (e.g., the fact that human infants are nurtured by older humans). Other ostensible universals—from food aversions and preferences to kinship designations to beliefs in supernatural entities—illuminate the crucial role of context in virtue of the extraordinarily wide variability within these shared cognitive dispositions" (625). Laidlaw, one suspects, would be happy to agree with this sentiment. It does not seem likely, however, to change his opinion about what CSR contributes to the study of religion. He does not, after all, deny that CSR increases our understanding of religion. He just does not think this new knowledge is anywhere near as valuable as CSR theorists think, suggesting it is more akin to the sort of technical knowledge that materials science contributes to the study of art history than it is to an adequate explanation of religion (Laidlaw 2007, 232). For him, religions are not constituted by certain universal core elements overlaid with a superficial layer of historically contingent features, but are rather historically defined—religions cannot be adequately conceptualized in isolation from their particular historical contexts as the products of universal cognitive processes. Neither the fact that there is a wide variability in shared cognitive dispositions nor the fact that particular religions evolve as a result of particular local contingencies does anything to counter this objection. Ultimately, the problem lies with the conception of people as robots. How complex they are, how many varieties of robot there might be, and how subtly they respond to, and learn from, their social environments, is all rather beside the point.

The question remains, however, of the extent to which CSR is fully committed to such a concept of mind and cognition. Could alternative concepts be grafted in or substituted without any loss of theoretical coherence? Certainly, Slingerland appears to believe so. Besides his commitment to its physical embodiment and the naturalness of a number of different cognitive capacities, including theory of mind and perhaps HADD (2008, 389), Slingerland does not endorse any particular model of mind. He does not, for example, openly endorse the much criticized massive modularity thesis, referring only once to theory of mind as a "cognitive module" (395), and he says relatively little about what other sorts of cognitive modules or tools might exist. Elsewhere he also makes clear that he is not committed to any particular understanding of computation, arguing that "a "computational" approach to the mind in no way implies a disembodied view of human cognition, or a denial that human cognition can take place in distributed, extended networks encompassing multiple dimensions of an

individual's physical/cultural/social environment (Slingerland and Bulbulia 2011, 324). Indeed, he even qualifies his use of the term "robot," suggesting that humans in fact process information in a way that is obviously different from computers and robots (Slingerland and Bulbulia 2011, 324).

Slingerland is right, of course. A computational approach to the mind does not strictly imply traditional cognitivism. And the evolutionary study of religion could theoretically incorporate theories of situated cognition and the notion of the extended mind and presumably still others if it chooses. Relatively few have attempted to integrate these ideas into religious studies, but notable examples do exist. As far back as 2004, Matthew Day sought to join the dots between Andy Clark's account of situated cognition and Steven Mithen's (1996) notion of cognitive fluidity, emphasizing the value of a novel "brain-plus-scaffolding" (2004, 101) account of the mind, and the insight it might provide into the importance of religious material cultures. Nathaniel Barrett (2010b) offered a critique of CSR's approach to information processing which he identifies with the computational theory of evolutionary psychology. Drawing on a number of vocal critics of the traditional cognitivist approach, Barrett is especially critical of the way CSR treats information as context-free. He argues that information is better defined by interactions between a system and its environment, and that such an interactive approach "sees convergent patterns of human behavior—even universal patterns—as jointly constructed by innate biases and environmental regularities, including the sociocultural regularities of a particular historical context" (2010b, 606). Armin Geertz (2010), in a similar vein, proposes what he calls a "biocultural theory" of religion, arguing that research in the cognitive and evolutionary study of religion is simply inadequate once we accept that "cognition is embrained, embodied, encultured, extended and distributed" (304). There are other examples of theorists willing to take alternative models of mind seriously, but not many.

What is more, though I have not explicitly tried to defend such a theory here, there are good reasons to believe that these alternative models of mind, inasmuch as they ground information processing itself in particular, historically contingent interactions with the individual's bodily, physical, and sociocultural environment, actually tally well with theological ideas of individual personhood (see Turner 2013). This is ultimately because an account of cognition that allows an individual's cognitive processes to be constituted in part by aspects of the extracranial environment cannot hope to conceptualize the individual person purely in terms of those things that everyone has in common—a certain sort of brain, or a certain sort of mind made up of certain sorts of information processing modules that function in similar ways, for example—but rather as existing as a relational and particular entity by virtue of their embeddedness in a unique social and physical context.

For now, however, we might say that there exists a *de facto* disagreement between theological anthropology and the current cognitive scientific and evolutionary study of religion. The fact that so few actually working in the field have questioned the underlying model of cognition, let alone its implications for concepts of individual personhood, means that very little effort is ever made to accommodate alternative accounts that may help to excise concepts of the abstract individual. To the contrary, the expansion of traditional cognitive science into the cultural realm may actually further reinforce the notion of individual personhood that theologians deem problematic. After all, if nobody believes it necessary to add anything to cognitive accounts of religion that might contradict abstract individualistic ideas, perceptions of the conceptual adequacy of abstract individualism can only be enhanced. Although nobody working in the field appears likely to have advanced such an agenda consciously, the evolutionary and cognitive study of religion can be seen, as Laidlaw does, as just another attempt to explain religion in terms of capacities which, though distinctively human, can be conceptually isolated from the lives of actual historical individual persons. This concern resonates with common, more general, criticisms of cognitive science and the experimental tradition in psychology, and their search for the internal mechanisms by which cognition and behavior are implemented in response to various stimuli (see Harré 1984).

The projects envisaged by Day, Nathaniel Barrett, and Geertz clearly have not been taken up in the mainstream, which remains strongly influenced by the sort of synthetic approach exemplified by Norenzayan et al. (2016). In practice, this impressively wide-ranging body of experimental, anthropological, historical, and archaeological work is dominated by theories constructed on the back of traditional cognitive science. This much is evident in those theories I have described above, which all incorporate three basic principles of the field: (1) the claim that cognition can be understood as the internal manipulation of a modal symbolic representations; (2) the claim that the cognitive system is comprised mostly by a large number of autonomous or semiautonomous, subpersonal, machine-like, functionally specific, structures, modules, or cognitive "tools"; and (3) the claim that cognition is governed by a well-defined set of internal "rules" of information processing. These are all fundamental premises of cognitive science that critics of cognitivism, including supporters of embodied cognition and social constructionism, have sought to overturn in their pursuit of an account of cognition which does not isolate it from its particular historically contingent contexts—in other words, where cognition does not take place entirely in the head, neatly sandwiched between environmental stimulus and behavioral response. Outside CSR, cognitive science has been dramatically impacted by new developments in the fields of artificial intelligence, cognitive linguistics, social cognition, and the study of perception, among other disciplines, which have presented a range of challenges to the classical

machine models of mind that dominated cognitive science's early years. As far as Nathaniel Barrett, Day, and Geertz are concerned, if the cognitive and evolutionary study of religion can be reformed to incorporate alternative models of cognition such as that described by Harré or the thesis of the embodied mind, it would look very different to the way it looks today.

No attempt has been made in this article to argue for or against the correctness of either CSR or theological anthropology as regards their respective conceptions of the individual human being. My concerns lie exclusively with the question of whether or not the former raises any theoretical or practical problems for the latter, since the current consensus seems to be that CSR is largely irrelevant for theology, but, at the same time, totally compatible with it. On this matter, it appears that we must draw a conclusion not unlike that which Visala draws in his discussion of CSR's implications for theism. The extent of the conflict one perceives between the cognitive and evolutionary study of religion and Christian theology seems likely to depend upon one's commitment to a particular view of cognitive science. Interdisciplinary conflict is not inevitable if alternative models of mind can be accommodated, and the evolutionary role of various cognitive structures and processes reconsidered in light of those alternatives. Such a strategy, as some have already suggested, may change the dominant evolutionary narrative quite considerably, but the success of such an enterprise cannot be taken for granted. It is beyond the scope of this article fully to assess the possible implications, but it should not be automatically assumed that CSR could continue to defend some of its core ideas about religion while simultaneously accepting a more relational, embedded account of cognition and thus what Lukes (1973) and others refer to as the concept of the concrete individual. It is not clear, for example, that anything about religion could be described simply as a by-product of cognition if it were not the product solely of evolved cognitive capacities of the sort theorized by CSR—if it were not, in other words, simply the product of purely internal maturationally natural cognitive processes responding to ubiquitous environmental stimuli. If those cognitive processes were embedded in particular social or cultural contexts (if cognitive processes could not be understood apart from their social and cultural contexts) then a range of different, and ultimately relational, phenomena would need to be considered in the formulation of any adequate explanation of the origins of religion. Consequently, the case for religion's "naturalness" in the particular sense intended by much of CSR may even be undermined. What is more, since CSR's account of the cultural evolution of certain aspects of religion depends upon some religious beliefs and behaviors satisfying preexisting cognitive "conditions" better than others, in the absence of such "conditions" it is not at all clear how processes of cultural evolution might lead to the differential selection of particular religious forms. However, in the absence of such analysis,

theologians must continue to worry about what the field has to say about people as much, if not more, than its implications for theism.

NOTES

1.    The importance of the distinction between causal and constitutive processes has been treated in depth by embodied cognition theorists (e.g. Clark 2008; Rowlands 2010; Shapiro 2011) and social constructionists (e.g., Gergen 1994) among others.

2.    Evidence disputing some of CSR's key empirical claims continues to accumulate, though this does not appear to have dimmed enthusiasm for the field as a whole. Recent critical studies have raised doubts about, among other things, the value of cognitive explanations over adaptive explanations (Szocik 2018); the relationship between religion and prosocial behavior (Oviedo 2016); the relationship between perception of agency and religious belief formation (Jack et al. 2016); a range of CSR's epistemological and ontological commitments (especially toward cognitivism) (Jones 2016); the role of theory of mind in the origins of religious belief (Maij et al. 2017); the plausibility of the hyperaction agency detection device (HADD) (Lisdorf 2007); and the extent of the archaeological support for the correlation between the emergence of big gods and the expansion of human communities (e.g., Martin 2014; Rüpke 2014).

3.    Such a view is made explicit by Johnson and Bering when they lament the dearth of experimental studies of the precise cognitive mechanisms involved in supernatural monitoring, writing, "What is lacking, however, is a careful consideration of the 'black box' in between—the human mind itself, and how cognitive processes interact with the natural selection of behaviour" (2006, 229). The metaphor of the "black box" for the mind is clearly very common throughout the history of cognitive science (see Rouse and Morris, 1986).

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