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# Looking Past vs. Overlooking Cognitive–Evolutionary Accounts of Religion: A Response to Nathaniel Barrett

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While emerging cognitive and evolutionary sciences of religion have generated important empirical findings and conceptual advances, Nathaniel Barrett is quite right to pursue integration with historical and cultural studies and to challenge the reductionism that is, if not endemic to, at least popularly ascribed to these approaches. However, we argue that in proposing an alternative paradigm, he mischaracterizes the breadth of the current research program in three ways: (1) it is not wedded to defining religion in terms of supernatural or fictive beliefs, (2) it does not construe the disposition to religious belief as “hard-wired” and context-insensitive, and (3) it does not presume an adaptationist, strongly modular account of mind. On each of these issues, the field displays a wide range of perspectives, and it is precisely the latitude of views that welcomes and indeed has spawned—from its founders to the present—interaction with cultural and historical scholars.

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IN “Toward an Alternative Evolutionary Theory of Religion: Looking Past Computational Evolutionary Psychology to a Wider Field of Possibilities,” Nathaniel Barrett proposes a corrective to current cognitive–evolutionary accounts of religion which, he claims, dismiss or undermine the importance of historical and cultural understandings. In its place, he defends an “interactive approach” that combines successors to the “outdated” computational and modular theories of mind with robust historical and cultural religious studies, promising a more comprehensive explanation of this recurrent human phenomenon.

We strongly agree with his core concerns. Accounts of religion that narrowly define it in terms of irrational belief in the supernatural, that are naively nativistic or invariantly adaptationist, that emphasize information processing over meaning construction, or fixed universals over context-sensitive variability all merit criticism on both scientific and humanistic grounds. We applaud his rejection of these errors and his desire to “resolve the opposition between scientific and humanistic approaches.”

The problem is, the errors he describes do not actually characterize the emerging cognitive–evolutionary (C–E) or evolutionary psychological approaches to religion that he claims are outmoded. Sadly, this inaccurate analysis and dismissive stereotyping of a heterogeneous and fruitful field of interdisciplinary research is likely to widen the very chasm between “scientific and humanistic approaches” he seeks to bridge.

We comment on three foundational claims made by Barrett about C–E accounts of religion that are demonstrably mistaken and if uncorrected stand to mislead readers on important issues and impede commerce between scientific, humanistic, and religious modes of inquiry.

### C–E DEPICTS RELIGION AS BELIEF IN SUPERNATURAL FICTIONS

Barrett claims that C–E proposals narrowly “define religion as professed belief in supernatural beings,” the “falsity” and “irrationality” of which are typically “taken for granted.”

This claim errs on three counts. First, a cursory survey of the field will reveal that the topics under consideration extend far beyond belief in gods. Cognitive accounts include other classes of religious ideas (Pyysiäinen 2004; Bering et al. 2005), religious effects on community morality (Graham and Haidt 2010), religious practices including rituals and use of sacred texts (McCauley and Lawson 2002; Malley 2004; Cohen 2007), and religious social organization (Whitehouse 2004).

Prominent evolutionary accounts—e.g., signaling (Bulbulia 2004; Sosis 2006) or group selection (Wilson 2002) theories—offer social functional explanations of religion as facilitating cooperation while (perhaps to their detriment) saying little to nothing about supernatural agents. Indeed, in his influential evolutionary proposal, Wilson explicitly eschews defining religion in terms of supernatural beliefs and affirms a Durkheimian approach.

Second, those treatments that do focus on supernatural agents as a distinguishing aspect of religion are merely following the essential practice in science of circumscribing a particular phenomenon for explanation. Many workers clearly recognize the limiting relationship between how a question is initially posed and how it is answered, and freely acknowledge that varying construals of the explanandum will yield different explanans (Schloss 2009).

Third, it is not the case that religious beliefs are usually asserted to be false, and even if this were the case, criticism on this basis would constitute an *ad populum*, which fails to demonstrate that this metaphysical view is a necessary precommitment or entailment of the theoretical program. The field reflects a broad continuum from those who are on record as affirming supernatural or other religious beliefs, to those who reject religion but endorse neutrality in the methodology, to those interested in explaining the persistence of beliefs that are demonstrably false, to those who begin with the assumption that an explanation of religion just *is* an account of why people believe falsehoods.

### C-E REGARDS RELIGION AS INNATE, UNIVERSAL, AND NON-CONTEXTUAL

C-E approaches are claimed to (a) posit that “we are innately susceptible to religious beliefs because . . . we have been ‘hard-wired’ by evolution” and therefore (b) “amplify the importance of universal factors to such an extent that contextual factors are relegated to a relatively minor role.”

Both claims are untrue. First, many adaptationist accounts overtly reject innateness in favor of contingent, culturally constructed information that is selectively transmitted via its contribution to individual reproductive fitness, enhancement of group function, or successful cultural diffusion. And careful work that does emphasize native cognitive dispositions does not invoke anything like “hard wiring.” The notion of “maturationally natural” (Barrett 2008) as opposed to “innate” cognitive characteristics acknowledges what biologists affirm of all phenotypes: they are interactions between genetic, epigenetic, and extra-organismal

variables. There are no truly “innate” traits but only central tendencies in emergent products of *both* species-general biological endowment *and* regularities of human environments. Indeed, this sounds very much like what Barrett endorses in his proposed corrective.

Second, 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.

Thus, any natural predisposition to form beliefs in invisible and/or counterintuitive agents is context-dependent and requires specifiable, common conditions. And whether those spirits are conceived of as ancestors or gods, forest spirits or bodhisattvas, will depend on local factors. Even more importantly, the *meaning* given to and believed to be given by these entities will covary with myriad individual, cultural, and historical factors. Some of those factors may present variable challenges or resources to which religion responds adaptively; others may merely constitute local reservoirs of interpretive possibility (desert dwellers are not going to conjure up forest spirits).

In fact, progenitors of this field were not scientists trying to keep historians and anthropologists out, but historians and anthropologists acutely aware of cultural and historic variability (e.g., E. Thomas Lawson and Stewart Guthrie) who were seeking to bring these data-rich fields into commerce with explanatory resources of biology and cognitive science. C–E approaches invite historical treatments, and the invitation has been accepted (Malley 2004; Whitehouse and Martin 2004; Cohen 2007). Moreover, the theoretical tools of C–E profoundly (but by no means inerrantly) extend historical sensitivity back into “deep time” in ways that unaided humanistic disciplines cannot access (Small 2008).

### C–E DEPENDS UPON A MISTAKEN AND OUTDATED CONCEPTION OF MIND

Barrett claims that the C–E approach to religion “combines a computational theory of mind with an adaptationist framework” that requires a commitment to strong modularity; and that this adaptationist, computational, modular, model of the mind has been supplanted by an extended, ecological conception. This set of claims is not only multiply mistaken, but also presents the reader with false forced choices.

First, it appears that Barrett does not accurately understand the adaptationist program. Because “adaptation” may function at different scales (replicator, individual, population), for different replicators (genetic, neuronal, cultural), adaptive accounts—even those posited by evolutionary psychology—need not entail the insensitivity to local conditions that Barrett presumes. More importantly, the most widely cited cognitive accounts of religion, including most of those invoked by Barrett, are not adaptationist at all, and indeed argue *against* attempts to find adaptive explanations for many of our mental capacities, including those supporting religious thought and action (Boyer 2001; Atran 2002). Second, while these accounts typically presuppose computationalism, so do the alternatives that Barrett advocates. Extended-mind hypotheses do not, for example, deny that the brain engages in computation, but rather deny that the brain is the totality of the computational machinery. Third, evolutionary proposals often do presuppose some degree of modularity in accounts of mind but only a very weak “modularity” and not the “strong modularity.” Barrett claims they are beholden to. All that is required by the C–E views is a rejection of the notion that the mind should be understood as a singular, general purpose device for which there exist no pan-culturally recurrent tendencies that inform cultural expression.<sup>1</sup> This very modest position is widely accepted even among advocates of Barrett’s “alternative” conceptions of mind, and remains the state-of-the-art in the cognitive sciences.

Fourth, Barrett claims that computational conceptions of mind presume that cognition is context-insensitive because they “define the tasks of cognition in terms of pre-defined information.” Relevant theorists have addressed what Barrett calls “the problem of information” by recognizing that regular features of human environments have exerted selective pressure on how human conceptual systems work, that these systems get “tuned up” by both cross-culturally general and culturally particular features of the environment, and that these conceptual systems only most flexibly constrain learning. “Cultural scaffolding” provides means of moving away from these natural anchor-points (McCauley and Lawson 2002; Whitehouse 2004). By no means does a modular, computational view of the mind regard thought and action as unresponsive to (or determined by) environment, but it does reject cognitive relativism—which Barrett claims to reject as well.

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<sup>1</sup>All scholars working in the area adhere to this very weak modularity (if it can even be labelled as such), but some do adhere to a stronger version. Debate over the degree and character of modularity of the mind is far from settled in the cognitive sciences.

Finally, while ecological accounts of perception and cognition are quite different from computational accounts, they have by no means supplanted them nor are they at odds (as suggested above regarding extended cognition). Indeed, a prominent advocate of C–E (Bulbulia 2008) has recently proposed an adaptationist, cognitive account that employs the very kind of “niche construction” approach that Barrett advocates as unavailable to C–E.

Barrett concludes the article by road testing his somewhat ambiguous “integrative approach.” As the approach is deployed, however, it does not include strategies unavailable to advocates of the models he rejects. The way forward in this field is not to create false dichotomies and thereby reject strategies that have displayed great explanatory promise, but rather to promote conversation between if not integration of all the resources at our disposal in the service of better understanding this important and recurrent pattern of human cognition and behavior.

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