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God's Brain

Book Review

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God's Brain, by Lionel Tiger and Michael McGuire. Prometheus Books, 2010, 256 pp. ISBN 978-1-61614-164-6 (Hardback)

Introduction

This slim volume, co-authored by an anthropologist (Tiger) and a psychiatrist-neuroscientist (McGuire) aims to provide a fresh and "nonjudgmental" perspective on the much explored topic of the evolutionary biology of religion and religious behavior. Evolutionary accounts of the nature and functions of human religiosity have taken their impetus from developments in the cognitive sciences (e.g., Atran, 2002), evolutionary theory itself — or metatheory (e.g., Wilson, 2002), and the neurosciences, with the latter giving rise to an entire subdiscipline dubbed "neurotheology" (e.g., Joseph, 2002). Recent books and articles on the topic have targeted both specialist and lay audiences, with the present one fitting best into the latter genre. Indeed, the authors wish to appeal to a wide audience, encompassing both devout believer and atheist, by offering a "balanced approach to the matter of religion" (p. 202). As the authors note, the long history of debate on the pros and cons of religion "has produced neither a fight card nor a dance card that interests us" (p. 202).

In the authors' opinion, previous accounts have failed to adequately explain "religion's power and incidence" historically and worldwide: "Some 80 percent at least of the world's population is in one way or another roiled, turmoiled, and apparently soothed by some form of … the 4200 known religions"(p. 194). The central argument of the book is that the persistence and ubiquity of religion — and particularly theistic belief — are best explained by locating religious activity "in the skull" — through a close inspection of how the human brain has evolved to both produce and benefit from religious experience and practice. A look at how the human brain produces religion and, importantly, how the brain benefits from religious belief and practice, the authors feel has not been sufficiently appreciated nor explored and yet lies at the heart of understanding religion's powerful role and influence in the lives of a majority of humanity. It is also a view largely overlooked by critics of religion who have been quick to dismiss belief and practice as crazy or delusional acts (e.g., Dawkins, 2006). But if the religious experiences and behaviors of a majority of humanity are natural products of the brain, then their dismissal as crazy is to commit "the entire species to insanity" (p. 215). To treat religion as harmful or irrational in the authors' view misses the point; namely, that the human brain creates religion because of its powerful "brain soothing" effects: Shared religious belief systems and the communal rituals and practices they inspire provide

certitude, meaning and comfort to human brains filled with existential angst or preoccupied with the seemingly meaningless quotidian tasks of existence.

The variety of brain soothing effects is elaborated in a lively, often witty, informal conversational style in the core of the book's chapters. Throughout, the authors seamlessly blend in personal anecdotes and vignettes that helpfully illustrate the significance of religion in people's daily lives. There is much that is woven together loosely and speculatively, but that seems to be authors' intent. They wish to stimulate, provoke, and entertain, which they do effectively, and the book can be easily digested in an afternoon. Of course, they hope too that readers will look anew at their own religious inclinations or disinclinations, and in the process come to know their own brains better.

The first three chapters focus on key attributes shared by all religions — deities, sacred texts, dogma, behavioral rules — on systems of belief and social hierarchy as powerful organizing principles, and on the impact of religion on daily life. Many of religion's core attributes are seen as unsurprising when viewed from a broader perspective of evolved human nature, such as the brain's preoccupation with social hierarchy and status and its consequent natural inclination to believe in a providential "imagined higher authority" who may be appealed to via petitionary prayer. Similarly, as social creatures with an agentic self, it follows that our brains readily attribute agency to events and objects both animate and inanimate. The authors remind us that our brains have evolved to form beliefs about the world — both imagined and real — and that in acting on those beliefs, it does not parse the imagined from the real. Both powerfully influence behavior: "people can't avoid believing things they imagine" (p. 38). In consequence, we should not expect the brain to work like that of a scientist — "for belief to be buttressed by hard evidence" (p. 32). The "brain is simply more comfortable believing than doubting" (p. 33). This is especially so if beliefs are of the "brain soothing" type — as religious beliefs are in providing answers to otherwise unanswerable questions about this world and the next. Religious beliefs, for this reason, are more potent and tenacious than other kinds of beliefs.

Religious belief and the rules of conduct that follow from it are perhaps no more apparent than in our sexual lives, a topic explored in chapter four. And here, too, the authors see religion's brain soothing role in what is arguably one of our most difficult behavioral urges to control, with profound consequences (reproduction) for the individual and society. By seeking to regulate our sexual and reproductive activities, religion surely "adds to the roll call", but more significantly it also helps us to manage guilt and anxieties flowing from this major behavioral weakness. This strikes the authors as an "exceedingly efficient solution for the administration of souls: Instill rules in their brains about what is for everyone an inevitable cycle of needful and potentially stormy sexuality. Then permit believers to act on their own and let those who violate the rules suffer guilt and seek repentance" — to get a weekly "pleasing jolt of brainsoothe" (p. 81).

In chapter five, the authors return to the topic of the power of religious belief, particularly in its capacity to "crowd out" the evidence from biology. Religious believers have no trouble fully comprehending scientific evidence that demonstrates religious impulses and notions of a supreme deity originating in the brain, or that in common with many other social species humans have evolved brains with moral dispositions that compel their social behaviors and relationships to be reliably rule governed. These comprehensible facts, however, fail to persuade or to dislodge religious belief. Why? The principal reason, the authors suggest, is that while biological explanations may be "logical and provable", they lack the critically soothing features of religious explanations: In place of "mindless genetic replication subject to the whims of a swirling soupy natural selection"…religion offers a "readily available list of behaviors and feelings that, if followed, assure social approval and self-respect and possibly passage to life

after medical death" (p. 99). Moreover, the authors note, secularism is costly: "The conflict and cognitive and emotional disagreements it invites are physiologically costly… and personally and socially aversive." Why not settle for a less complex and more predictable system?" (pp. 97-98). You get the point by now: the brain favors beliefs that reduce ambiguity, uncertainty, and conflict — it favors ideas that soothe.

The naturalistic foundations of human religion are explored more deeply in chapter six — what the authors call the "primatological scaffolding" on which religion is built. There is a brief overview of basic genetic, anatomical, social-behavioral, cognitive, and emotional similarities and differences between humans and chimpanzees, with a particular emphasis on those elements that serve as a foundation for human religious behavior (e.g., morality and compassion, rule-governed behavior, stress-reducing behaviors, deference to authority). They conclude that with the exception of the "elaborated belief features of religion", humans and chimps are remarkably similar in the behavioral characteristics of all religions.

The next three chapters provide a nice synthesis of the stress-reducing aspects of religion and related ritual practices (e.g., meditation), particularly the brainsoothing effects of religious socialization. A congregation's shared belief system and ritual practices, codes of conduct and dress, familiar faces, and outpouring of positive emotions all contrast religious social settings with more stressful ones encountered in the rest of daily life. More to the point, religious socialization specifically and powerfully activates brain areas and neurochemistry that medicate the brain much like mood-enhancing, anti-depressant medicines do. The authors draw particular attention to the self-esteem enhancing and egalitarian aspects of religious practice that result from the exchange of positive social signals and the "temporary disappearance of hierarchy". While there is surely social hierarchy in the church, there is arguably also a "leveling" of this hierarchy in the communal worship of a "higher" authority. Importantly, the regular and repetitive nature of religious practice is just what is required to keep the brain soothed by activating neurochemicals involved in pleasure, positivity, and bonding, with serotonin playing a chief role. Churches are veritable "serotonin foundries", the authors quip. McGuire's earlier extensive, elegant work on the connection between serotonin and social dominance in vervet monkeys and humans, summarized in chapter 8, is essential here in moving the argument beyond seemingly idle speculation.

The final two chapters recapture some of the book's central points, give the reader an opportunity to evaluate his/her own capacity for brain soothing — to generate a "brain soothe score" — and present several caveats about the intent of the book. Coming full circle, the authors are careful to stress that their aim is neither to disparage religious belief nor to convince the devout to shed religion on the heels of the biologically reductionist argument offered: "Readers…who believe in a God can on its basis affirm that they are sensible folks pursuing a course that is robustly based in nature and connects to the supernatural" (p. 210). Likewise, for the non-believer the "firm location of religious activity in the skull is presumably a sufficiently secular denial for them of the elaborate and ambitious claims of religious advocates" (p. 211).

Fair enough. The authors deserve credit for recognizing that their account of how the brain produces and feeds on religion does not in any way disprove the existence of the theist's God and they thus avoid a good deal of philosophical troubles they might otherwise have heaped upon themselves. Indeed, as they suggest, their proposition that "If God is a creation of our brain, then God's brain is our brain" (p. 215) — a clue to the perhaps enigmatic book's title — can be taken to mean that God created the human brain so that it could experience the divine. But this is not for science to legislate.

For those seeking a scientific explanation or naturalistic account of religion, do Tiger and McGuire offer new insights? I would offer a tentative "yes", with the proviso that the book

needs to be appreciated on its own terms. As a work of science it is essentially the development of an idea (parts of which could be turned into testable hypotheses) about religion as a product of the brain rather than a careful testing of the idea against data and alternative explanations. For the serious-minded scientist, at worst, this could be taken as "stream-lining" an argument — the fitting together of pieces that seem to support the idea. There is much that is coherent, however, in the story as told by the authors, woven together from a broad spectrum of the social and life sciences, and the ultimate survival of the authors' brain soothing idea will depend on its testability. In their view, a principal scientific value of the book is in its novel emphasis on the brain, which compared to previous evolutionary-functional accounts of religion, they believe to be a "better explanatory mousetrap." In my view, this is an unfortunate characterization of the authors' contribution compared to previous ones. The role of the brain in generating and benefitting from religion is surely an important component of the explanatory puzzle, and deserving of more research, but it is only a proximate level explanation that should complement ultimate level (evolutionary) explanations. In other words, a truly "better" mousetrap is not one that pits proximate against ultimate explanations but rather one that captures both. Let's pray for that one.

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