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COMMENTARY

Supernatural beliefs and "functional psychosis"

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An important theme running throughout Flannelly's *Religious Beliefs, Evolutionary Psychiatry, and Mental Health in America* is that psychotic symptoms can serve an adaptive function. They force us to monitor our social standing and make behavioral adjustments when that standing is threatened. Work in the cognitive science of religion has often stressed religion's role in reinforcing group cooperation. Flannelly's work suggests another possible adaptive function: that it helped our ancestors maintain a "functionally psychotic" mental state. That is, a state where we vigilantly monitor our standing within the group. This vigilance approaches, but usually does not cross, the threshold of debilitating dysfunction.

In my commentary, I will draw parallels between the contemporary supernatural beliefs that are the subject of Flannelly's work, and the supernatural beliefs of the past. If supernatural beliefs evolved to help us maintain an adaptive functionally psychotic mental state, then we should see evidence of this in the supernatural beliefs of our ancestors. My examination suggests that this is, indeed, the case.

In a nutshell, our earliest "religious" ancestors held beliefs that made them functionally psychotic about how others (including spiritual others) regarded them. Our first "civilized" ancestors were functionally psychotic about their tribal identities and their standing among powerful elites. Our Medieval ancestors were functionally psychotic about piety, rather than identity. Religious people today, I will argue, are something of a "throwback" to our earliest civilized ancestors (more so than our Medieval ancestors) in that their major concern is identity rather than piety.

Functional psychosis

Flannelly's book is wide-ranging. In an attempt to identify general patterns in his work, I created a summary table (available upon request) listing the various supernatural beliefs he studied (e.g. positive/negative beliefs about the afterlife, whether or not one has been forgiven by God, belief in an equitable world), the concern(s) that each belief targeted (e.g. one's afterlife fate, worries about a risky/dangerous world) and the positive or negative effect the belief had on that concern (did the belief reduce or exacerbate psychotic symptoms associated with the concern?). From the table, I was able to detect two general patterns:

(1) Most religious beliefs are associated with reductions in psychotic symptoms. A few, however (for example, negative beliefs about the afterlife, belief in a malevolent God, believing that one is being punished or has been abandoned by God), exacerbate those symptoms. Thus, religious belief is largely, but not exclusively, beneficent to one's mental health.

(2) The anxieties that religious belief targets are of two types—(a) uncertainties about one's afterlife fate and, (b) uncertainties about the risks of living in a dangerous world. It is not hard to imagine how these worries could produce adaptive social behavior. Being a cooperative, unselfish group member helps my afterlife prospects as well as ensuring the here-and-now social support I need to cope with life's vagaries.

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Being an adaptive group member, however, probably does not entail an unceasingly happy mental state—that could lead to complacency, gullibility, and possibly other forms of social obtuseness. Since occasionally, others *really are* conspiring against you; a little paranoia can be useful, too much, however, can be debilitating. So getting the dose right is critical. Envision a spectrum running from awareness to vigilance to obsessiveness. A purely rational operator may be aware of threats, but given that other people are a major source of the threat and people are not entirely rational, merely being *aware* of a threat may not be adequate (other people's vindictiveness or indifference may not be rationally predictable). Thus, successful social functioning may require a state falling somewhere between vigilant to obsessive regarding the presence of threatening circumstances. If supernatural beliefs helped to foster this (vigilant-obsessive) mental state, then even though our ancestors' specific supernatural beliefs would have been different from ours, they still would have accomplished the same end – keeping them "functionally psychotic" – meaning vigilant-obsessive about certain social cues. However, the specific circumstances (and therefore cues) about which they were vigilant-obsessive likely changed over time and beliefs should reflect this.

Ancestral beliefs

Shedding light on the beliefs of our hominin ancestors is obviously fraught with challenge. Our best guess comes from using extant traditional societies. This is problematic for many reasons, including the fact that no traditional society is unaffected by the modern world and those influences extend to their belief systems. Furthermore, traditional societies vary in what they believe. So, what amongst this varied and "contaminated" pool of traditional beliefs might reflect ancestral beliefs? A number of sources have sought to identify general, thematic commonalities of belief among traditional societies (Bowker, 1997; Guenther 1999; Hayden, 2003; Whitely, 2009; Wright, 2009) Assuming these common themes represent beliefs with the deepest evolutionary roots, they become our best guess as to the supernatural beliefs of Homo sapiens of pre-history. As much as possible, I will try to align these beliefs with those studied by Flannelly.

Afterlife beliefs: Traditional hunter-gatherers, and by extension our hominin ancestors, believed in an afterlife and that one's state in that afterlife was affected by one's state and conduct during their earthly life. However, one's afterlife fate did not turn so pivotally on divine moral judgment in the manner envisioned by most world religions today. Instead, how one lived in the spirit realm was in many ways continuous with how he or she had lived on earth.

In contrast to most believers today, it is unlikely that our ancestors had any doubts about the existence or nature of the afterlife. Their world was entirely spiritualized. The spirit world was as present and as "real" to them as the trees, streams, and wildlife around them. If that weren't enough, dreams, shamanic journeys, and reports from near death experiences (Shushan, 2017, p. 38) added further credence. Thus, unlike present beliefs, ancestral beliefs did not have to assuage afterlife uncertainties. Uncertainty didn't exist. There was a spiritual realm and one's existence in that realm was like one's earthly existence.

Collaborating with God: Similarly, our ancestors were also quite certain that they were in a collaborative relationship with the spiritual world—one of collaborative reciprocity. The spirit world provided life, resources, offspring, good and bad fortune. Humans provided sacrifices, ritual, and taboo observance. When both parties operated in good faith, humans could expect success. When the relationship broke down (usually because of human failing), then misfortune in the form of illness, hunger, or natural calamity could ensue.

Benevolent/forgiving God vs. malevolent/punishing God: For our ancestors, gods and spirits were anthropomorphic in character. Thus, they were both benevolent and malevolent. Their disposition toward one or the other state being influenced (though not determined) by human activity. Rituals, sacrifices, and taboo observance were human strategies for influencing divine attitudes. Monotheists

tend to see God as perfect and unchanging. So, while church attendance and prayer might influence God somehow, in the end, divine wisdom exceeds human understanding. For our ancestors, however, divine will was as understandable and as influence-able as human will.

Attachment to God: Attachments, whether secure, anxious, or avoidant would also depend on the anthropomorphic nature of ancestral gods and spirits. Some gods and spirits were loyal friends: totemic allies and spirit helpers, for example. Others were opportunists, adversaries, and tricksters. The parental attachment model commonly used to describe present-day relationships with God probably had limited applicability in the ancestral past. Our ancestors were enmeshed in multiple relationships with diverse spiritual agents where some might be understood as secure by today's reckoning while others were anxious or avoidant.

Doubt and meaning: Neither religious doubt nor existential anxiety had much currency in the deep past. The spirit world and the afterlife existed, and life was inherently meaningful. This inherent meaning arose from the fact that daily activities were essential to survival. Hunting, gathering, tool-making and repair, child care, storytelling, dancing, etc., were obviously and directly connected to survival. Ancestral life simply did not have the identity confusion of parent vs. worker, professional vs. private, leisure vs. labor, etc. that characterize modern life and that so often produce existential worries.

Summarizing across ancestral beliefs, I would argue two patterns emerge: (1) our ancestors did not worry much about the afterlife and (2) many of today's beliefs do not map well onto ancestral beliefs because of the anthropomorphic nature of the gods and spirits in which our ancestors believed. This, I contend, is revealing. For our hominin ancestors, the greatest threat they faced was the power and unpredictability of the natural world to which they were directly connected. They addressed this threat by spiritualizing it. This had the effect of incorporating nature into their social world and thereby subjugating it to the same rules of reciprocal exchange governing human social relationships. In this expanded, "supernaturalized" social world, the ubiquitous rituals, sacrifices, and taboo observances that often characterize hunter-gatherer life can be understood as obligatory social niceties necessary for lubricating spirit-human interactions comparable to the social courtesies and tit-for-tat favor exchanges that characterize human-human interactions (Rossano, 2007; 2010). Thus, we might hypothesize that our hominin ancestors, by virtue of their animistic beliefs, were vigilant-obsessive about the "social niceties" necessary for successful social functioning. Most of the time, their mental state was more toward the vigilant end of the spectrum, but no doubt it could occasionally veer into obsessiveness.

As chiefdoms and early civilizations emerged, humans gained a degree of "buffering" from the direct impact of natural threats. Interestingly, however, there is no evidence that this produced a reduction in the rituals, sacrifices, or taboo-observance behaviors that characterized hunter-gatherers' daily lives. If anything, this intensified. Numerous historians have commented on the fact that daily life in the ancient world was thoroughly saturated with religious belief and ritual (see discussion in Wright, 2009, pp. 50–51, 74 and the references therein; also Zaidman & Pantel, 1989, pp. 27–28). But this is not necessarily unexpected given the changes in social life and concomitant threats. Nature may have receded as a direct threat, but another threat more than compensated for this: other people.

In these larger, more complex and stratified social worlds, new threats from interactions with unpredictable strangers, powerful elites, and state-level authorities were rampant. In response to this, religious belief and accompanying rituals served as group identifiers and signs of compliant citizenship. Additionally, concerns about one's afterlife fate began to emerge at this time as well (though muted compared to those arising later). Where our earlier hunter-gatherer ancestors were vigilant-obsessive about "social niceties," our more civilized ancestors were vigilant-obsessive about group identity and compliant citizenship. Theirs was a highly risky social environment and their beliefs and rituals had to adapt.

The emergence of polytheistic beliefs is often ascribed to macro-sociological reasons. The present discussion raises more individualistic possibilities: the need to sustain personal identity and identify

Table 1. Functional psychosis over time.

Time period	Obsession	Focus relevant belief
Pre-history	Social niceties	Animism
Chiefdoms/early civilizations	Group identity	Polytheism
Middle ages	Piety	Afterlife concerns

trustworthy others in the complex social milieu of more densely populated villages and cities. The belief in a tribally defined god (or gods) who required distinctive ritual acts, may have served as effective daily reminders of group identity. Indeed, the more unique the beliefs and acts, the more effectively they may have served as group-based markers. Odd, mentally-questionable acts to some, may have been adaptive cultural "glue" for others. There probably is, however, a threshold where these identifying beliefs and practices go too far and erode the healthy mental and social function they were originally designed to sustain.

There is evidence that religion's signaling function continues to operate in modern time, especially for reproductive purposes (Weeden, Cohen, & Kendrick, 2008; Weeden & Kurzban, 2013). I suspect that this is a re-emergent function not an unbroken continuation from the days of early civilizations. During the long period after the fall of the Roman Empire, the need to signal (to oneself and others) one's particular tribal-affiliation, over and against numerous other tribal factions, using distinctive supernatural beliefs and rituals was probably not as urgent a concern due to the decline of cosmopolitan cities and the general social fragmentation of the period. Though Christendom and the Islamic Empires were not monoliths, they featured religious hegemony. Publically signaling anything other than the dominant religion was decidedly disadvantageous, especially where state authorities could mandate compliance.

Thus, a hypothesis stemming from this would be that where religious hegemony rules, religious signaling moves from group identity to piety. In this context, identity is not the major concern, instead it is proper standing within the dominate religious/social system. This would be effectively displayed by the intensity and commitment of one's belief and action. It is here that afterlife beliefs take on greater significance. The more people truly believe that their uncooperative, uncompliant actions can lead them to eternal punishment; the less social capital needs to be expended on keeping them in line. Belief can do (some of) the work of secular authority.

The diversity and secularism of the modern world makes it more akin to the ancient cosmopolitan city than the feudal communities of Christendom. This returns supernatural belief to a social context where personal identity and tribal-affiliation are of increased, albeit not exclusive, concern.

My discussion is summarized in Table 1. Undoubtedly, Table 1 vastly oversimplifies both history and belief. However, my goal is to identify some general trends from which concrete hypotheses might be derived. If supernatural belief has served the adaptive function of keeping people in a functionally psychotic state, then we should see belief change as threats changed. Table 1 describes those changes. Three broad hypotheses emerge from Table 1.

1. Animism kept our pre-historic ancestors vigilant-obsessive about their personal standing within a highly expanded social world that included ever-watchful gods and spirits of the natural world.
2. Polytheistic beliefs kept our more sedentary ancestors vigilant-obsessive about their tribal-affiliation and their personal standing with powerful elites and state authorities.
3. Afterlife concerns kept our Medieval ancestors vigilant-obsessive about their standing with powerful intra-tribal, intra-religious authorities.

Disclosure statement

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