Credo, Cognition, and Culture: An Anthropology of Religion

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Religion seems to be universal to all human societies (Brown, 1991). Recent evidence and hypotheses from evolutionary psychology have preferred a gene-culture coevolution approach in understanding modern human sociality and cognition. Such evolutions, in turn, are argued to have provided the foundations for large-scale cooperation and phenomena such as institutionalised, prosocial religions and religiosity generally, particularly since the advent of agriculture around 12,000 years ago (i.e., the Holocene; Matthews, 2012). This article aims to provide a full anthropological account of religion by equally involving a socio-cultural and ethnographic inquiry and insight into such cognitive manifestations of credence (i.e., beliefs and practices), whilst paying sensitive attention to methodological approaches within the social sciences. By providing these two lenses, this article addresses religion anthropologically in the broadest way, presenting one proposed genesis of religion and the multiple lived realities and experiences of religion.

Most of the world's population today is religious, despite rising levels of atheism (Norris & Inglehart, 2004; Norenzayan, 2015; Norenzayan et al., 2016; Atran & Henrich, 2010; Pew Research Centres, 2015), and large prosocial religions and religiosity seem to be a ubiquitous human-unique phenomena (Brown, 1991; Johnson, 2005). Defining religion is difficult, if not impossible (Saler, 2009; Taves, 2011; Stausberg, 2010); thus, this article foregoes 'unproductive definitional debates' (Norenzayan et al., 2016, p. 17) and conceptualises the domain of inquiry and loosely provides the working definition as one concerning 'constrained amalgams of beliefs and behaviours that are rooted in core cognitive tendencies' (ibid., p. 4). By examining both the complex evolutionary dynamics of specifically large prosocial religions that are understood to have emerged since the advent of agriculture (Matthews, 2012) and various ethnographic accounts on religiosity (which may provide subjective insights into the manifestations of different "beliefs"), this article serves to understand one proposed genesis of religion and various ethnographies of religiosity in situ.

I. A GENESIS OF RELIGION
Love thy stranger
Circa 10,000 BC the global climate stabilised, paving the way for the First Agricultural Revolution (Richerson et al., 2001). A subsequent rise in large, complex societies that were characteristically anonymous—as opposed to the previously small-scale foraging units (Johnson & Earle, 2000)—induced intense intergroup (i.e., between-group) competition and conflict. Here, large-scale societies in the neolithic may be loosely defined as those groups 'having larger populations, greater concentrations of political power, and higher degrees of social inequality' (Carballo & Feinman, 2016). Securing a more cohesive and cooperative society was fundamental to survival (Alexander, 1987; Diamond, 1999; Turchin et al., 2013). The advent of "religion" and norm psychology, as a product of such adaptation to intergroup competition pressures, sought to this necessity

(whether religion itself is a direct adaptation, an adaptive benefit, and/or a by-product of these pressures will be discussed) of reducing intra-group conflict and promoting intra-group cohesion and cooperation.

Crucially, then, this article presents *one* potential account of the genesis of religion, particularly established in the Neolithic period, as some adaptive response to maintaining intragroup cohesion and inducing large-scale cooperation, whilst simultaneously recognising the complications in deciphering *the* genesis of religion or religiosity. Put simply, increased religiosity in the Holocene epoch is not a species-wide phenomenon thanks solely to large-scale progressions and pressures. Much complex archaeological evidence can justifiably complicate the intricate and heterogeneous development of religiosity, particularly among modern religious societies who do not live within "large-scale" societies, practice agriculture, or have shared ancestry or gene flow with those that have historically. Indeed, many small-scale societies still demonstrate credence in a higher being, that which is preternatural, or in some *god(s)*, whatever form they may take. How this relates to the admittedly focused and singular account of the dual evolution of our genome and cultural inculcations for large-scale populations will be addressed.

In this section, I pose two general questions:

1. In what ways have cultural evolution and our evolving psychology fostered for religiosity and large-scale cooperation in the last 12,000 years?
2. How have specific *cultural evolution* and *genetic* selection pressures inspired and continued to internalise and institutionalise religion/religiosity?

Religious elements (beliefs and practices) are understood to be a *nonadaptive by-product* of our evolved human psychology. That is, religiosity itself is not an adaptation *per se* of various natural selection

pressures; religion was never the *telos* of adaptive change due to natural selection. It is nonadaptive in the sense that it is extremely costly to be religious and there are no obvious fitness-enhancing benefits (Henrich, 2009; Sosis, 2009). Instead, what may have evolved are various natural (genetic) adaptations such as evolving cognitive faculties, propensities, and capacities which have enabled cultural learning processes (Richerson & Boyd, 2006; see also Cosmides & Tooby, 1992), providing foundations for large-scale collective coordination, cooperation, and acquiring religious beliefs more effectively. Religiosity seems to be a *by-product* (or 'spandrel' as coined by Gould & Lewontin, 1979) of these various cognitive abilities that has *culturally* evolved into the structures of religion we know today. Parenthetically, it is possible for these cognitive by-products to have been co-opted thereafter for adaptive purposes (some of the following discussion may be viewed in this light; for a selectionist account, see Powell & Clarke, 2009)[1]. Nonetheless, the co-evolution of both culture and the genome has certainly provided new environmental pressures for the other. Namely, religiosity, with its own cultural evolution, notably provides new selection pressures for human evolutionary psychology to select adaptive responses and mechanisms that encourage religiosity and prosociality more generally.

As previously mentioned, the cultural evolution of religion has been induced and driven by the increasing competition among groups (Atran & Henrich, 2010). Specifically, via *cultural group selection*, religions come to reduce intra-group conflict and promote intra-group cohesion and cooperation by selecting those who are more likely to adopt the beliefs of a group (this is true of norm-driven behaviour and selection, too). Indeed, with a coevolving psychology, improving within-group cohesion and thus increase in phenotypic similarity can induce 'pressure and opportunities for coordination' (Chudek & Henrich, 2011, p. 220; for genetic basis, see Lewis & Bates, 2010; Lewis & Bates, 2017). As certain behaviours, beliefs, and actions (religious or otherwise) become more normative, these cooperative pressures ensure that those who have a higher propensity to recognise, internalise, and subsequently "believe" and enact such "norms" (i.e., expressing religiosity), are more likely to survive and reproduce. In short, these cultural group selection pressures are understood to influence the genetic inheritance of various cognitive abilities that prove adaptive benefit (ibid., p. 219).

Compared to our Palaeolithic ancestors, many had thought that our genomes had remained largely unaltered; it seemed that there was not enough time for selection pressures to cause significant genomic evolution. Instead, Laland and colleagues (2010) have shown that culture has refined the human genome increasingly faster by demonstrating that 'culturally constructed environments create powerful—and often autocatalytic—selection pressures on genes' (Chudek & Henrich, 2011, p. 224; see also Richerson et al., 2010). Such coevolutionary understandings also offer a perspective into cultural variance of cooperation both geographically and across time (Chudek & Henrich, 2011). Indeed, not only are the phenotypic regulations that serve to sustain and promote cooperation generally part of a 'genetically evolved cultural learning psychology' (ibid., p. 221), but these same regulations pose selection pressures for the genome. There is an intimate relationship between culture and the human genome that informs human behaviour: this is the dual-inheritance theory (of cultural and genetic inheritance systems) or *gene-culture coevolution*. Crucially, this cultural group selection should not be understood in isolation from the genetic selection and the continued gene-culture coevolution of the human species (Chudek & Henrich, 2011; Henrich, 2004).

It is worth problematising any totalising account of our dual inheritance of genes and culture, particularly in the last 12,000 years. Given that the Holocene begins long after the genesis of our own species and given the manifold and heterogeneous nature of the cultural and genomic paths each society inevitably embarks thereafter, there is a restriction to the degree in which we may propose a resultant gene-culture coevolution at the *species level*. It is worth reminding that the point at which all humans derive their shared ancestry is found around 300,000 years ago in Africa. Nonetheless, the account presented recognises that the majority of societies depended on large-scale cooperation and intragroup cohesion which, in turn, could conceivably procure such

adaptive responses to both genomic and cultural selection pressures. For small-scale populations, religions can certainly provide cohesion—and not solely thanks to the advent of agriculture which I have hitherto argued catalysed mass population growth and inter-group competition which may notably be absent in such populations. In other words, environmental pressures are not—and have not been—homogeneous to all societies and only a portion of the modern human population have experienced the forces, pressures, and gene flow that are posited here as having induced the response to intergroup conflict, various cultural evolutions, and the necessity for large-scale cooperation.

Importantly, the emergence of large, cooperative societies—where genetic (or "genealogical") relatedness geometrically plummets as they grow (Boyd & Richerson, 1988)—cannot be explained alone by reciprocal altruism (Trivers, 1971) or kin selection (Hamilton, 1964; Norenzayan et al., 2016). One major issue is the free rider dilemma (to be discussed) and understanding how village settlements grew to large-scale cooperative metropolises despite studies indicating fissures and collapse of human group sizes of 150 individuals (Dunbar, 2003; Forge, 1972; Tuzin, 2001). Nonetheless, it has been posited that among other cultural evolutionary paths, including non-religious institutions and norms (secular law, for example), prosocial religions have contributed to such large-scale cooperation, even between complete strangers.

Ratchets, Big Gods, and demonstrating CRED(O)

Having outlined an account of one framework with which to understand the advent of institutionalised religion from the start of the Holocene, I present some of the specific cultural pressures, cognitive predispositions, and both cultural and genetic evolutions that may have admitted the manifestation of religious behaviour. Namely, the ability to internalise, sustain, and further evolve religio-traditional or normative behaviour, the ability to attribute agency, and the important skill of understanding and valorising the intent of others.

It is in the second, ethnographic half of this article where illustrative examples of exactly how people believe—at least to the extent of their own subjective claims—will be discussed, thereby extending the discussion on religiosity to the believers themselves.

Ratchets

The ratchet effect, in which cultural knowledge is "faithfully" transmitted through generations (developed in the past two million years), has played an essential role in cultural evolution in the lineage leading to *Homo sapiens*. This has, by extension, presented new modes of producing cultural adaptations, and cumulative social learning—avoiding the necessity for each subsequent generation to learn solely via trial-and-error (Boyd & Richerson, 1996; Tomasello, 2001; Tennie et al., 2009). In other words, it is posited that from the origins of *Homo* (our genus), an evolutionary "Rubricon"—a 'threshold between typical genetic evolution and the regime of autocatalytic culture-driven genetic evolution' (Henrich, 2015, p. 133)—established a phylogenetic path where such cultural evolution grasped the reins and directed the route of our genetic evolution.

Consequently, our unique ability to impressively transmit and build upon such phenotypic repertoire has enabled more 'complex and fitness-enhancing' (Chudek & Henrich, 2011, p. 218) behaviours that are learnt through imitation. Indeed, children are shown to "over-imitate" certain actions to exceptional and sometimes unnecessary detail (Nielsen & Tomaselli, 2010); imitate for purely social motivations (Uzgiris, 1981); and place 'faith in cultural traditions […] over personal experience or intuition' (Norenzayan et al., 2016, p. 5; Lyons et al., 2007; Atran & Henrich, 2010). Teaching, arguably an altruistic act, has been observed in all known societies (Kruger & Tomasello, 1996) and studies demonstrate that children detect and have a propensity to engage in pedagogy (Gergely & Csibra, 2006). Here, cultural traditions may be transmitted through teaching, strengthening the cultural ratchet (Tennie et al., 2009).

Crucially, as Heinrich puts it,

the more culture accumulates, the greater the selection pressures on genes for making one an adept cultural learner with a bigger brain [with enhanced

psychological abilities] capable of harnessing the ever-upward-spiraling body of cultural information (2015, p. 134).

Expressions of these evolved psychological propensities include our capabilities of cooking (i.e., the unique ability to use fire for food preparation; Brown et al., 2009) and hunting (including advanced toolmaking; Thieme, 1997; Wrangham, 2009; Alperson-Afil et al., 2009; Toth & Schick, 2009). Significantly, for religion, cultural learning ensures adaptive benefits due to normative behaviours, which have not only become ubiquitous but semi-institutionalised or commonsensical, becoming internalised by the same processes of imitation, social contagion (Christakis & Fowler, 2013), and cultural learning (Tomasello et al., 1993). Here, then, the concept of a God or supernatural entity is expanded and formulated by this accumulation of knowledge, with generations born into worlds where such conventional wisdom(s) are prone and ready to be internalised.

Big Gods
I take the term Big Gods, borrowed from Ara Norenzayan's (2015) seminal book, to refer to those 'powerful, morally concerned deities who are believed to monitor human behaviour' (Norenzayan et al., 2016, p. 3) and are understood to be critical in promoting parochial prosociality (Bowles, 2006).

One by-product of the development of cognitive abilities includes the mental representation of supernatural entities such as Big Gods (McCauley, 2013; Boyer, 2001). Specifically, our evolved capacity to mentalise others' thoughts, feelings, and even intentions (Epley & Waytz, 2010; Frith & Frith, 2003; also known as Theory of Mind) can arguably be extrapolated via cultural group selection pressures to represent mental states of supernatural beings (Gervais, 2013). However, this notion admittedly has been commented on as being far more complicated and that understanding the representational nature of the mind is a tedious task (Spanoudis et al., 2015; for discussion, see Demetriou, Makris, & Pnevmatikos, 2016). Concordantly, certain ritual acts and religious "thinking" have been linked to brain region activation congruent with innate mind capacities—praying and theory of mind, for example (Kapogiannis et al., 2009; Schjoedt et al., 2009).

Another example concerns the possible "agency detection module", functioning in much the same way as an innate ability for face detection (Haidt, 2012); i.e., a developed hypersensitivity to attribute agency to happenings. Take the following example: The man clearly moved the cup toward me, but *whom* or *what* caused this thunder, my unluck, my fortune, my life? Just as a face detector can only make 'false positives' (i.e., recognise a face in a cloud) and not 'false negatives' (i.e., not recognise a face that *is* detectable), this agency detection module can too be understood to necessarily work in the same direction, in terms of the available "mistakes" it can make (Haidt, 2012, p. 292). The mentalisation of supernatural beings with such agency can potentially be understood to be birthed as by-products of our continually developing and highly adaptive cognitive templates (Norenzayan et al., 2016). Indeed, many religious rituals and practices have demonstrated significant neuropsychological similarities cross-culturally, particularly shamanism (Winkelman, 2000; McClenon, 2001).

It might be obvious to note that the belief in an omniscient and omnipotent Big God also encourages people not to defect and instead, cooperate. Studies demonstrate that even the nearby presence of a cartoon-style eye can inhibit the tendency to cheat in a test (Haley & Fessler, 2005) or if the test itself indexes (or "primes") some seemingly irrelevant notion to God (Shariff & Norenzayan, 2007). This has often been labelled the *supernatural punishment hypothesis* (SPH; see Bering, 2006, 2011; Johnson, 2009). Contention surrounds whether this fear of totalising and moralising gods and supernatural punishment are culturally selected (Norenzayan et al., 2016) or genetically selected (i.e., members select others who are less likely to defect; the original SPH). Norenzayan and colleagues (2016), nonetheless, certainly believe that these two avenues for the fear of supernatural punishment can be commensurable under various conditions (for more detail on the co-evolution of religions and their employment of gods, see Wright, 2009).

Demonstrating CRED(O)
One of the biggest issues with the regulation of norms and maintaining cooperation and active prosociality is the risk of free riders and Machiavellian manipulators (Henrich, 2009). Namely, those who are aware that most will enact and expect normative behaviours and nonetheless choose to defect and/or deceive, riding on the benefits of others. Various social strategies and mechanisms have developed to reinforce and sustain cultural learning and cooperation and minimise free riders: reputation, punishment, and signalling. Firstly, *reputation* is a well-studied pressure in norm psychology that recognises humans' acute awareness of their own status and reputation in the minds of others, reinforced by social monitoring (Bering & Johnson, 2005; Fehr & Fischbacher, 2003). More than this, defectors may warrant punishment and accrue further damaged reputations; in turn, allowing others to exploit defectors without fear of damaging their own reputation (Panchanathan & Boyd, 2004). Secondly, *punishment*—particularly costly punishment or altruistic punishment—has been shown to covary with rates of altruism (Henrich et al., 2006; Boyd & Richerson, 1992; Fehr & Gächter, 2002; Sigmund et al., 2010). Institutions that sanction are also shown to have a competitive advantage (Güreck et al., 2006). Finally (although this is not a decisive list of mechanisms), *signalling*, i.e., the demonstration of acts indexing commitment or intrinsic motivation including costly punishments or displays which can effectively prevent free riding (Gintis et al., 2001; Bulbulia, 2004; 2008).

This signalling becomes particularly important with the development of language as the new ability to mislead and transmit false information poses a new type of pressure and adaptive challenge (Lachmann & Bergstrom, 2004). Indeed, when it comes to demonstrating one's faith in God, it no longer suffices to simply state "I believe in God"; costly signalling becomes more influential in the cultural learning process. Thus, time- and labour-consuming or altruistic displays are costly in that they are usually luxurious or incur some other cost to the devotee/ model. Here, these acts (praying, donating, sacrificing, self-immolation, martyrdom, and even more extremely, suicide bombings) can index *and* transmit one's commitment and religiosity; this, too, can effectively expose free riders as people become increasingly judged on their acts (Bulbulia, 2004; 2008). These costly displays and diagnostic actions are often called *credibility-enhancing displays* (CREDs) and learners are far more likely to adopt a model's belief if the model's cues and behaviours suggest they are committed to it (Harris, 2012; Sperber et al., 2010; for an extensive account of CREDs including mathematical rigour, see Henrich, 2009).

Oftentimes, being religious requires placing fidelity in rather counterintuitive concepts.[2] Here, CREDs play an instrumental role in the belief of an intangible and invisible God, for example (Harris & Koenig, 2006). This adaptive challenge affects not only cultural group selection (i.e., I will not cooperate with you because from the lack of your CREDs, we know your words to be superficial and misleading, whilst you continue to benefit from the group). It also encourages an astute awareness and proclivity to engage with such beliefs which, encouraged by intergroup competition, may '[alter] the genetic selection pressures moulding the foundations of our sociality' (Norenzayan et al., 2016, p. 5; Henrich, 2015).

In a self-sustaining manner, cultural evolution may have favoured those institutions that require higher costly rituals, for example, as they ensure that 'members transmit higher levels of belief commitment and thereby promote cooperation and success in intergroup or interinstitution competition.' (Henrich, 2009, p. 245). Take the following example: In an extensive study of two hundred communes, Richard Sosis (2000; see also Sosis & Alcorta, 2003) found that religious communes outlived secular communes, twenty years after their establishment. The reason posited was based on a positive linear relationship between the quantity of sacrifices demanded and endurance, where laws and institutional constraints proved to be far more efficacious when sacralised. It might be worth noting that extreme signalling, such as celibacy, martyrdom (including suicide), or other religious extremism, certainly do not provide adaptive benefit for the individual as such behaviours necessarily limit their reproduction (Atran, 2011). They may, however, prove as effective

signals for the respective group, encouraging a consolidation of belief, devotion, and sacrifice (Xygalatas et al., 2013; for an example concerning Mauritian Hindus' "extreme" devotional rituals, see Xygalatas, 2013).

Ultimately, signalling and specifically CREDs, have—when in moderation—served as adaptive solutions to the pressures imposed by assessing one's degree of commitment and intent (or their intrinsic motivation), particularly with the awareness of 'cheap' symbolic cultural transmission (i.e., language) which can prove to be disingenuous (Henrich, 2009). After all, *actions speak louder than words*.

Finally, similarly emphasising the benefits of group cohesion and intra-group cooperation, Robert Putnam and David Campbell offer the conclusion in their book, *American Grace: How Religion Divides and Unites Us*, that '[it] is *religious belongingness* that matters for neighbourliness, *not religious believing*' (Putnam & Campbell, 2012, p. 473). It is precisely the relationships *between* other devoted religionists that emphasises selflessness and promotes the intragroup cohesion necessary (Haidt, 2012). For Dennett (1996) and Dawkins, however, religions are merely *culturally* transmitted packets (or *memes*; Dawkins, 1976) that strictly abide by the same Darwinian selection processes that govern all other expressions of human behaviour. Not only should our understanding of religion move beyond this—and their rather myopic belittling of religions as "parasites" or "viruses" seeking to "infect" as many possible—but anthropological accounts should consider how the past tens of thousands of years have moulded, catalysed, and perhaps paved a path for the birth of the "belief" and devotion to supernatural beings and God(s).

Here, Aunger (2000) also identifies an issue with such memeticist accounts (also one central to this article): whether the brain and its cognitive templates and capacities have evolved in such a way that the concept of God can occupy it (Hinde, 1999) or whether the same concept of God is apprehended solely via infectious memes (Dawkins, 1976). Here, as does this article, Laland and Brown suggest that 'the reality lies somewhere between these poles' (2002, p. 230). However, it is worth reminding the reader here that this is but one account of religion's potential genesis and that the mechanisms which may have resulted in such "religiously-prepared" psychological and cognitive faculties have certainly developed non-identically.

In sum, for the types of societies concerned in this article, large-scale cultural evolution has no doubt been shaped by and has reciprocally offered new adaptive pressures to our evolved cognitive psychology, dealing with large-scale communities and promoting intragroup cooperation, particularly in increasingly anonymous societies. With this outlined, it is worth understanding how the truly diverse modes of believing and religiosity are experienced—perhaps assisting our endeavours to understand cognitive processing of such phenomena.

II. ETHNOGRAPHIES ON RELIGIOSITY

Religion has always had a firm standing at the forefront of social anthropology (Asad, 1983; 1993; Geertz, 1968; 1973; Needham, 1973; Pouillon, 2016). Presumptuously, within much scientific literature, the belief in Big Gods, deities, "uncanny beings", and the supernatural have conveniently been assumed to be cognitively processed and represented in very similar ways. Without making unsubstantiated claims about how the gene-culture coevolution may have brought about cultural particulars, I merely hope to offer illustrative insights—or "thick" descriptions—into the various engagements and understandings of "belief". Simply, *what* people believe is socially, culturally, and oftentimes politically contingent and whilst evolutionary psychology may search for universal cognitive principles of *how* people believe, acute sensitivity to the way in which persons describe their "belief" is essential if we are to access and understand their world(s) and ontology. Ironically, whilst our previous section was necessarily atheistic in its inquiry, social anthropology has had to reckon with the so-called "methodological atheism" that was first introduced by Peter Berger (1967). This approach, however, has failed to take alterity seriously; indeed, this has been social and cultural anthropology's central concern, continually struggling with this "crisis of representation" (Marcus & Fischer, 1986).

The first section of this article has focused on large-scale societies and this theme continues. However, I do not equate large-scale societies here with large-scale organised religions such as the Abrahamic religions, Hinduism, and Buddhism,[3] which would seem to suggest their followers are homologous in their religiosity—a naive, reductionist, and certainly unproductive assumption. Instead, taking large-scale to mean groups within religions whose numbers are nonetheless considerable (whether geographically situated or not), associate under a group identity (with the larger religion itself or a denomination), and imagine themselves as a community (usually nationalist in character; Anderson, 1991)—thus, likely falling under similar pressures of intragroup cohesion and intergroup competition. What concerns this section primarily is an insight into the societal manifestations and experiences of belief—perhaps an insight into the heterogeneity of cognitive engagements concerning religiosity—with the caveat of recognising interlocutors' and ethnographers' *subjective* position(s).

With this, I begin *in media res* ethnographically problematising the blanket assumption of religion's ability to induce cooperative and prosocial behaviours.

Non-cooperative attitudes?

A typical social interaction with Catholic "friends'" in the subcounty Bulaya of the Kaberamaido District, Uganda, whether intimately close or stranger, can often include deceiving the other with false promises, platitudes, and even outright lies whilst both parties maintain a degree of hesitancy and doubt (Ravalde, 2019). Spiritual forces, such as demonic ones or the Holy Spirit (*Tipo Kacil*), are said to drive humans in their desires to either deceive and thwart God's (*Lubanga*) plan (who has listened to and sought out the path for prayers), or help in the search for spiritual cures to ailments and misfortunes. After Ravalde and her interlocutor were warned not to drink alcohol in preparation for the ceremony concerning the betterment of the interlocutor's family's misfortunes—believed to be caused by witchcraft substances (*yat*) within the home—they indulged nonetheless and deceptively (and successfully) sought to cover up their smell and evidence of alcohol consumption. Upon arrival, the prayer team, associated with an Anglican chapel, proceeded to call upon the Holy Spirit through their team leader and were able to deliver the ceremony as usual. Notably, all persons present and the Holy Spirit were unaware of previous improper preparations (ibid., pp. 149–150). Ravalde (ibid., p. 156) makes it clear that no person is capable of describing the full nature of the Holy Spirit except that it is perceived as having limits and 'subject to attempts by human mediators to manipulate and guide it' (ibid., p. 148).

Here, *deception* (*ngalo*) and *distrust* define the social landscape between not only humans but spirits alike who are awarded agency in their ability to influence humans. Crucially, however, Ravalde's ethnography demonstrates that through this account of the Holy Spirit as a limited "being", deviating from Eurocentric conceptions of God as a mystical, omnipotent, and omniscient being, the standardised and legitimised forms of deception apply to it equally. For the Catholics in Bulaya, deception is a morally neutral feature of social relationships whether with God, the Holy Spirit, or the next human being they encounter (Ravalde, 2019). What underpins this belief system and moral reasoning, however, is that no being can truly be understood, nor their intention. Thus, all social relationships are said to be held in an 'opaque and indeterminate' (ibid., p. 147) setting. Many Catholics here flicker between various denominations which Ravalde explains as being due to the limited access to written texts (in part to illiteracy and financial costs) and ill-trained catechists—catalysing a profusion of variations of the Holy Spirit (ibid., p. 157). However, it should be noted—especially if we are to criticise the hegemonic atheistic and reductive discourse of religion in academia, generally—that characterising their hermeneutics of mystery and distrust as, even in part, the result of "ill-training" or "illiteracy", may prove patronising and unsubstantiated. Mystery is a highly important part of even the most "theologically sophisticated" Catholicism.

Ravalde's ethnography can be likened to that of Kirsch's (2004) Southern Zambia exploration of the volatile nature of shifting between denominations in the search for healing by the Holy Spirit is, as well as

Stephen Glazier's (1991) questioning of the layers and complexities of belief and 'unbelief' in the Orisa cult in Trinidad. For Kirsch's ethnography, instead, they are warned that they must "believe" in order for the healing practices to work, whilst for Glazier's ethnography "belief" merely constitutes a social, practical, and experiential attitude.

Anthropology has served us well in understanding how similar insecure environments of multiply differentiating perspectives on religion (Zigon, 2009) can hold wholly different ontologies towards religious beings; namely, for the Catholic of Bulaya and the Orisa cult follower, doubt, suspicion, and acts of deceit become key tools for maintaining such indeterminate social landscapes 'established with practical gain at their heart' (Ravalde, 2019, p. 160), whilst complete acceptance with no reservations or qualm about beings is the basis of belief for the Southern Zambian Christian denomination (Kirsch, 2004).

These denominations all 'believe' in (or have no doubt in the ontological existence of) the Holy Spirit and may separate it as either an ontologically vertical relationship (superseding human doubt and offering only promise to those who believe) or a horizontal one (treated—or manipulated—as though a human).

This perspective shift in ontological belief is captured similarly when moving from Siberia to the steppes of Mongolia who understand themselves to be in some way related to the spirit world. Specifically, the former see it as a horizontal spirit world plane concerned with 'alliance' and comprised of ontologically similar beings whilst the latter demonstrate a vertical understanding of the spirit world where 'patrifiliation' presides and a more ancestralised cosmos is prioritised (Pederson, 2011, p. 166; see also Grant, 2021).

In any case, these "beings" exist and are afforded agency (not just inactive mediators or representations of belief), differing only in the mode of perspective and ontological understanding of such beings in relation to the human "being". These modes of belief of what might be the same realms (either various conceptions of God and the Holy Spirit or Shamanic spirit worlds) offers anthropology the question of what it is to capture the verb and act 'to believe' and belief itself in its multifarious ontological understandings.

Objects as mediators of belief

Here, I pose the following questions: For religious persons, what can be said to have agency? How do objects demonstrate such agency and how do they mediate relations between persons, the preternatural, and other objects? And how does this subsequently complicate methodological approaches to religion? I present this through two religious practices that are not only found on opposite sides of the world but descend from different religious and cultural heritage, both geographically and temporally. Strikingly, the way in which they seem to regard and treat (socially and cognitively) objects is not dissimilar.

A neocharismatic, evangelical, Christian denomination in southern California, named The Vineyard, is often well-recognised for its supernatural Pentecostal-style practices including healing, deliverances from demonic possessions, speaking in tongues, and prophesying (Bialecki, 2014, p. 40) which, through reiterative practice of praying and recording, consolidates a follower's relation with God. Conversations with God are hand recorded in a journal where His responses and contributions are understood to be given to His interlocutor only. Interestingly, this relationship and conversing is developed in a manner in which the 'repeatedly playing at conversing with God' is 'no longer … effectively subjectively perceived as a form of play' (ibid.). Material props such as the journal and a second cup of coffee presented to Him before conversing serve, through repetition, to tangentially converge their relationship closer to one another. However, this occurs only asymptotically such that it is a continual pursuit—a relationship that is understandably never fully achieved (ibid.).

Lao Buddhist festivals for ghosts and ancestral spirits, on the other hand, describe material traces (ritual objects and offerings) as reminders of those that have passed—an index of sorts, of both their presence as spirits but material absence nonetheless (Ladwig, 2012). This ritual complex comprises two festivals: *boun khau padap din* [BKPD] and *boun khau salak* [BKS]. These serve to demonstrate the deceased's "ontic shifts"

(ghosts, spirits, and ancestors) and ultimately establish these rituals as important and intensified places of communication (ibid., p. 432). Food offerings are central to these festivals as the former, BKPD, serves to feed what are initially hungry hell ghosts (*piphed*), typically with banana leaf rice-packets offerings (*ho khau*) and rice ball offerings (*pinda*). It is true that food has played a crucial postmortem communicative role in most Buddhist traditions of Southeast Asia. For example, with the *Khmer* ritual, Porée-Maspero discusses how food offerings are there for the 'creation of a spiritual body' (1950, p. 47) and the daily deliverance of *pinda* for up to 10 days after the death and in annual festivals of the deceased in the practice of *Śrāddha* in Brahmanic ritual (the actual derivation of offering to *piphed* by Lao Buddhists).

These offerings (i.e., objects) of Buddhist ethnic Lao are not merely static mediators of communicative arenas, but instead are active agents in the constitution of such material traces and become 'transformative gifts' (Ladwig, 2012, p. 435) that assist these beings in their own 'ontic shifts' (i.e., moving on from deceased to types of spirits; ibid.). The rice packet offerings to the *piphed* are 'object agents' (ibid., p. 440) allowing the immaterial to mark and express themselves through the material domain. Bialecki (2014) develops this "Object Oriented Ontology" framework in which all objects, human/nonhuman, material/immaterial are awarded agency and seriously considered as "actants" within the cognition of types of ontologies. This approach was derived from a turn against Peter Berger's (1967) "methodological atheism" which refused to see God in the context of Christianity as a social actor Himself and objects as active participants in the experience of "belief" (Berger, 1969).

From beings and objects—such as The Vineyard's God, His journal, second cup of coffee, and initially pretence responses during prayers to the Lao Buddhist's *ho khau* and *pinda* offerings to the *piphed*—engagements and experiences with *things* (human or nonhuman) are demonstrably important to interlocutors' ontology and worldly cognition: their being, their becoming, and their reality. All that which exists, interacts, and has agency exists within a "flat ontology" (see Bryant, 2011, p. 112; DeLanda, 2002): a non-hierarchical plane where objects, not limited by their smaller constituent objects nor totally controlled by any overarching structure, are connected and interacting through 'networks, chains, or assemblages' (Bialecki, 2014, p. 36). This, too, rejects the attributing of value to and "hierarchicalisation" of differing epistemological systems such as the supposed chasm between science and belief (Lindquist & Coleman, 2008, p. 7)—i.e., that between ethnographer and interlocutor, for example. In the above examples, therefore, we see objects and beings, which might have otherwise been relegated to false pretences or inactive figments of imagination in methodological atheism, having been "taken [their] differences seriously" (Carrithers et al., 2010).

These similar modes of cognitive representation of objects could certainly provide fruitful discussion for evolutionary psychologists who often find cross-cultural similarities in such areas—but finding an exact causal explanation of the seemingly universal attribution of agency to objects is certainly outside the scope of this article. In any case, before revisiting the helpful methodological tool that is flattened ontology, I continue to problematise belief and explore what occurs when the anthropologist's own 'belief' is questioned and perhaps converted.

An anthropologist struggles

Whilst Katherine Ewing (1994) was conducting an ethnography on the practice of Sufism among Muslims in Pakistan, a Sufi saint (*pir*) who had earlier that day prophesied his advent in Ewing's sleep appeared in her dream. What startled Ewing more was the reaction of her Pakistani psychiatrist who, having spent several years in England and studying Western psychotherapy, became intrigued by the saint and the event itself, instead of dismissing the event as some power of suggestion or psychoanalytic scheme founded by Sigmund Freud or Carl Jung. This event was followed by a subsequent conversation with a high court justice which Ewing attended in hopes of reconciling her dreading sense of dissonant encounter with her work.

Similarly, Karen M. Brown (2001) having worked with *Mama Lola: A Vodou Priestess in Brooklyn* found that she 'could no longer remain a detached observer' (ibid., p. 9) and began learning and practising

Vodou herself. For Brown, 'the choice of relinquishing [her] worldview or adopting another in its entirety [had] therefore never been at issue' (ibid., pp. 10 – 11). More than this, an anthropologist may indeed already inhabit a cultural or religious arena in which they find their study such as Brian Howell's (2007) own Christian faith. Here, Howell, whose identity shaped his fieldwork with Baptists in the Philippines, argued that his subjective Christian position being outside androcentric, enlightenment modernity should be embraced as a valuable contribution to ethnographic perspectives. These examples have served as ethnographic evidence in themselves of anthropologists' attitudes towards ontological realities different to their own, and crucially when these realities may become shared, blurred, or even completely crossed.

Anthropology, argue Willerslev and Suhr, has always been a 'confrontation with alterity' (2018, p. 73) where such "paradoxes" or feelings of Socratic "aporia" (at a loss when encountering such cognitively incomprehensible stimuli), as Holbraad (2012, p. 251) puts it, should be accepted and not explained or 'resolved' through various ontological accounts. This is what is often described as a limitation of Eduardo Viveiros de Castro's perspectivalism and the "ontological turn" in general (where the subjects of analyses are 'not worldviews, but [different] worlds of vision'; de Castro, 2011, p. 133). This accepting-of-paradoxes approach necessarily moves away from a longstanding tradition in which Berger's methodological atheism (where all religious ideas and institutions were 'considered human externalisations'; Bialecki, 2014, p. 33) often disallowed religious "beings" and objects agency.

Notably, Luhrmann (2012), in her analysis *When God Talks Back*, likens The Vineyard followers' relationship with God to an "imaginary friend" and received immediate hesitancy and some refusal of the comparison from The Vineyard followers. Despite eventual clarification on "imaginary" being misrepresentative—as for her interlocutors, God truly was talking back—this *likening* is indicative, or at least reminiscent, of the anthropological obsession to deny other ontologies and superimpose one's own understandings, particularly when belief becomes an 'embarrassing possibility' (Ewing, 1994, p. 571). This "imaginary friend" comparison necessarily brought its own linguistic and cognitive indexical meanings: for example, in the Western, ardent scientific, atheistic, perspective, "imaginary friend" connotes immaturity and perhaps even abnormal development and a temporary condition brought by loneliness, lack of prosocial interactions, or trauma. Cognisant of the types of people who come to read these ethnographies and the ontological lens they don, this choice of comparison is admittedly poor. Luhrmann somewhat faltered slightly here to represent such people's relation with God, even with an attempted emic language.

I return to the case of Ewing having her fear of "going native" become partially true. Whilst trained as an interpretive relativist, Ewing's desire for objective evidence for the Sufism ontology was assumed to exist and be found outside the ontology of the ethnographer herself. Her confusion and worry to reconcile what seemed to her a conflict of interest is also indicative of the nature of later anthropological enquiry (specifically, relativism); namely, that some objective (realist) truth of the ontological other is still sought after, guised under the 'belief' that we are learning and representing other worldly visions. Instead, we analyse these ontologies from the same ontology that we have so definitively carved and inscribed in our research methodology. Simply, it becomes impossible to escape our own ontologies in the pursuit to fully represent the Other. (For extensive critique on reconciling ontologies, the "ontological turn", and metaphysical claims in anthropology, see Willerslev & Suhr, 2018; Holbraad & Pederson, 2017; de Castro, 2015; Cepek, 2016).

Forming a social anthropology of religion

By embracing such encounters between ontology and embracing alterity (Scott, 2013), Jon Bialecki calls for a meshing of both the ethnographer's and their interlocutor's 'ontological categories' (2014, p. 34) including the objects themselves as "actants". Here, initially providing a flat ontology is encouraged, in which everything exists equally on one plane interacting through networks and linkages (ibid., p. 36). It is here where a flattened landscape may then be readdressed, reconnected,

hierarchised, contoured, and painted in accordance to interlocutors' conception of their own culture. Contentions, disagreements, agonisms between interlocutors' descriptions of the same society provide fruitful discussions which are perhaps better found in political anthropology (Postero & Elinoff, 2019, p. 6). In other words, a flattened ontology does not ignore the importance of various "actants", persons, objects etc. but seeks to first flatten the ethnographer's own ontological assumptions: one may not believe that food directly speaks to—or feeds—the deceased, but one should nonetheless treat it with the same attentiveness as one may for the well-known act of praying). A two-dimensional plane of connections, linkages, and relations may thus subsequently be sculpted by the interlocutor(s), carving and adding depth to their own socio-politically understood landscape. This section of the article has attempted this—whether these include (as discussed) the deceptive and indeterminate social landscapes for all agents including other human beings, Holy Spirit, and the witchcraft objects in Catholic Uganda; The Vineyard's God who speaks back; and the Lao Buddhist material traces connecting the living with the various ontic forms of the deceased. Finally, the unresolved conflict of Ewing's dream in a previously anthropologically atheist framework describes perfectly how such "other worldly" experiences or visions, should encourage anthropologists to embrace the fear of "going native". Placing faith in for what one ontology may be unanswerable questions requires not "methodological atheism" (a misguided guise of impartiality) but a "methodological faith" or a Kierkegaardian "leap of faith" (Willerslev & Suhr, 2018). We must recognise that for many, religion and belief cannot be reduced to an intellectual test (Howland, 2008, p. 103). Marrying and warmly embracing the two inevitably conflicting ontologies (i.e., the anthropologist's and the interlocutors') in this proposed enmeshment may give rise to a new form of epistemology which may, in turn, help resolve many methodological debates that have arisen ever since social and cultural anthropology met religion.

CONCLUSION

Anthropology—in its broadest sense, encompassing biological and socio-cultural inquiries—has been interested in the species-unique behaviour of religiosity. Increasing evidence has pointed towards the continued gene-culture coevolution of our cognitive capacities and cultural mechanisms to internalise, reproduce, and devote oneself to religion. Religion(s) and religiosity have certainly not been the *telos* of such evolutions and embracing both the *nonadaptive byproduct* and *cultural evolution* aspects of this phenomenon may serve anthropological endeavours well to understand various accounts of the genesis of religion. More than this, social and cultural anthropologists and their ethnographies serve instrumental insights to not only position such ideas of religion in real, contemporary arenas but to offer continued insights into how respective religious ideas, through our evolving cognition, become internalised and what consequences they have in relation to others (whether human beings, deities, objects, and other supernatural entities). What is notably absent in the article is an account of atheism's genesis (or geneses), emotional and affective basis (see Asma & Gabriel, 2019) and an account for the moral foundations of religiosity which can be extrapolated to norm-inscribed behaviour,[4] too—these would certainly provide further fruitful inquiries. Nonetheless, the anthropology of religion continues to enjoy new fertile ground and evidence from continued interdisciplinary efforts engaging cognition, culture, and credo as key insights into "belief" and religion.

NOTES

1. This discussion is largely in line with current cognitive science of religion accounts: viz., the 'Standard Model' (Boyer, 2005). It has been described as in opposition to selectionist accounts as the Standard Model concerns itself with 'a strictly nonfunctional account of the evolution of religion' (Powell & Clarke, 2009, p. 460). This is situated in the larger adaptation-byproduct debate or the 'level-specific nature of adaptation' (ibid., 471; see also Sosis, 2009). For a serious critique on the Standard Model's methodology (often understood as superior to adaptationist alternatives), see Powell & Clarke, 2009.
2. Cognitively, not socially, counterintuitive concepts.

3. I leave this unproblematised here, but many argue that Buddhism is a way of life rather than an organised religion.
4. For reading on morality and moral reasoning, see Blair, 1995; Brosnan & De Waal, 2003; Carson & Banuazizi, 2008; De Waal, 1997; Ellemers et al.,

2013; Giner-Sorolla, 2012; Graham et al., 2011; Greene, 2013; Griffiths, 2002; Haidt, 2001; Haidt et al., 1993; Hauser, 2001; Hauser, 2006; Hauser et al., 2003; Joyce, 2021; Manstead, 2000; Roberts, 1979; Schäfer et al., 2015; Schmidt & Tomasello, 2012; Turiel, 1998, 2002.

Interdisciplinary Commentary

A literature review of psychology and religion

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As a pertinent insight into human behaviour, religion is of great interest in psychological research, and has been increasingly focused on within the field over the last decade. This literature review will focus on the growing research from a personological perspective on the relation between individual personality traits (specifically the Big Five's Conscientiousness and Agreeableness) and religiosity, as well as the wider population level view of how religiousness may be internalised by social learning. This literature review extends to considerations of how intragroup cooperation within religions may be aided by attachments between members and God, and the cognitive ability of theory of mind.

Introduction
From a psychological perspective, religion can be defined as 'people's beliefs, affects, behaviour, and community in reference to an entity perceived as transcending humans and the world' (Saroglou & Cohen, 2021, p. 2). These authors therefore describe 'religiousness' as individual differences in psychological elements such as 'beliefs, affects, behaviour and community', and a general 'orientation of overall positive versus negative attitudes towards religion' (Saroglou et al., 2020, p. 552). In this literature review, I will discuss the main domains of psychological research on religion, including the role of social learning in a child's internalisation of a religion; attachment as a mechanism of intragroup cooperation; theory of mind as an evolved cognitive capacity, enhancing cooperation within a religious group and finally; whether—if such a relation exists— the relationship between personality and religion differs across cultural contexts.

Social Learning and Religion
Evolving cognitive faculties seem to have facilitated cultural learning processes, allowing religion to be internalised through observation and imitation. The social learning theory of psychology is one way in which children can more effectively learn religious beliefs and practices, building the foundations for large scale collective cooperation. Bandura's (1969) experiments represent the beginnings of this theory, proposing that individuals learn behaviours from the environment through observation and imitation, and this has more recently been applied to learning religious beliefs and behaviours. Oman (2013) presents social learning and 'spiritual modelling' as one of the key contenders for explaining why and how people become religious, and why their religion or spirituality assumes a certain form. Religious teachers emphasise the importance of the power of example and propose that religiosity is 'caught, not taught' (Oman, 2013, p. 1). If a child's environment emphasises religious values and ideals, the child will be likely to develop such behaviours from an early age, especially when this observation is coupled with reinforcing rewards, such as praise from their parents or communities (Nazir et al., 2020). Therefore, a religious upbringing may encourage a child to retain behaviours which are endorsed by the religion of their environment, and we may suppose that if a child is brought up in a highly religious community, they may be more likely to adapt to the same religiosity that surrounds them.

Attachment and religion
When looking at how cooperation within religious groups arises, psychological research suggests looking to the attachment system as a mechanism of cooperation; this could also function for the group selection of religious groups. Granqvist and colleagues (2010) suggest that a religious persons' perceived relationship with God (or a higher being) meets the definitional criteria for an attachment relationship. They focus on two main developmental pathways to religion: compensation (involving distress regulation, where one has previously had an insecure attachment and/or past experiences of insensitive caregiving and religion might 'compensate' by offering 'earned security') and correspondence (based on a secure attachment and past experiences with sensitive, religious caregivers). Kirkpatrick and Shaver (1990) demonstrated this 'compensatory' role of God and religion for those with a past of avoidant attachments, substituting as an attachment figure. God becomes an attachment figure, providing a safe haven for believers in times of threat or distress. Bowlby (1982) suggests these situations activate the attachment system and the attachment creates a secure base for challenging life endeavours. This is suggested by experimental studies on the religion-attachment model such as Granqvist and colleagues' (2012), where they found in a Jewish sample of college students, participants demonstrated an increased mental access to God following exposure to threatening words (e.g., failure, death). Similar findings were found by Cherniak and colleagues (2021), where God is experienced as a source of safety and security by many religious people and seen as an attachment figure much like human caregivers.

Weingarten and Chisholm (2009) crucially looked at how this attachment system could enhance cooperation within religions, examining the early work of Bowlby (1946) on ensuring cooperative behaviour in groups and adapting this to intragroup cooperation within a religion. Bowlby described how an emotionally salient relationship between a member and group leader, rooted in early attachments, could motivate one to act for the good of the group and encourage cooperative intragroup behaviour. By applying this to religion, they attempt to show how attachment to a supernatural agent or deity acts as a mechanism which allows intragroup cooperation, including that required for cultural group selection (Weingarten & Chisholm, 2009). Furthermore, attachment to the whole group has been studied showing affected processes such as 'group cohesion', 'commitment, cooperation, coordination, and consensus' (Rom & Mikulincer, 2003, p. 1226). Punishment has also been shown to be an important aspect within attachments which ensure cooperation, with punishment by a deity suggested to have an important role in maintaining intragroup cooperation within religions. Conversely, forgiveness is also an important factor in attachment, and for intragroup cooperation (Wilson & Hölldobler, 2005). Therefore, a believer's attachment to a supernatural being seems to be an important factor in ensuring intragroup cooperation within a religion.

Theory of mind and religion

Theory of mind (ToM; one's ability to understand the thoughts and feelings of others; see Leslie et al., 2004) has been shown to be a cognitive capacity humans have evolved that allows cooperation within a religious group. Weingarten and Chisholm (2009) link this to attachment and intragroup cooperation by discussing how infants 'read' the intentions of others (originally identified as the mother, but also more broadly other members within the group) in order to recognise their abilities and willingness to invest, and therefore line up their own intentions in order to cooperate with the group. The concept of ToM also affects how religious people think about God, with Drubach and Claassen (2008) proposing that ToM also applied to God, with some believing that God 'understands us perfectly' (Boyd, 2008, p. 373). Wigger and colleagues (2013) conducted research on children ages 2 to 8, administering ToM tasks, and found that younger children tended to attribute ToM to agents such as imaginary friends, humans, dogs, and God, whereas older children treated God differently from all other agents. Therefore, both a child's own ToM—and their understanding of the knowledge of others—seems integral in their relationship with not only God, but also others of the group, enhancing intragroup cooperation.

Personality and religion

There has been increasing empirical research on religion from a persono-logical perspective, stemming from the work of personality psychologists such as Allport (1950) and Murray (1960) on religion (Schnitker & Emmons, 2021). Psychological research has suggested that there are not only certain cognitive abilities on a universal level that have given rise to religiosity (such as the evolution of theory of mind and the ability to internalise belief), but also individual person-specific traits which make one more likely to take on religious belief. Ashton and Lee (2020) found that religiousness in general is related to prosocial personality traits, showing small positive associations with broader personality characteristics, such as Agreeableness and Conscientiousness (Big Five personality traits) and even stronger positive associations with more specific personality traits which encompass prosocial tendencies, such as altruism, fairness, and forgiveness. Additional results show that different aspects of religiosity are associated with varying personality traits, with religious fundamentalism related to lower levels of Openness dimension, and spirituality linked to higher levels of the Openness dimension. The strength of associations between religiousness and personality also seems to differ regarding the religiousness of their community, with weaker associations found in relatively non-religious countries compared to moderately strong associations in highly religious countries, suggesting the community may act as a moderator of the link between religiousness and personality (ibid.).

The role of culture in religiousness and personality is discussed by Saroglou (2010) where they attempt to explain the individual differences in religiousness as a cultural adaptation of the two basic personality traits of Agreeableness and Conscientiousness, finding that these personality traits seem to predict religiousness, rather than be influenced by it and are found to be consistent across various religious dimensions, contexts (age, gender, country etc.), and personality measures. They followed up this study by investigating whether these personality traits associated with religiosity were universal or differed across varying cultural contexts (Saroglou, 2017), examining the question of isomorphism (whether personality traits associated with religiosity at the individual level are the same as those at the broader collective level), observing that there are some cross-cultural differences in personality characteristics associated with religiosity. Further research by Entringer and colleagues (2021) suggests that the Big Five personality domains may only account for a small amount of individual differences in religiosity, with culture being much more important than assumed. The Big Five personality traits explained little variance in religiosity in the least religious cultural contexts, but explained substantially more variance in religiosity in the most religious cultural contexts (4.2% compared to 19.5%; ibid.). Therefore, though it does seem that some personality traits may be related to individual differences in religiosity, but mainly in religious cultural contexts, religiousness should still be viewed as a psychologically

individual difference that is conceptually and qualitatively different to personality (Saroglou, 2011).

Conclusion

Psychological research on religion seems to focus on two areas: the individual, including personality traits which may be linked to religiosity—though this seems to vary between cultural contexts—and the wider community level, in terms of social learning of religion, the attachments between members of a religion and their relationship with God, and ToM, encouraging intragroup cooperation.

The case for critical realism in the underdeveloped psychology or religion

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Psychology faces the issue of incommensurability in studying religion because the meaning of the term "religion" is not clearly defined. This is caused by the tension between the two main philosophies used in psychological research: positivism and social constructionism. I argue that the indirect nature of measurement tools used in psychology means that interpretation of phenomena is required, and this involves value judgements that neither approach can account for without inconsistencies. I propose that critical realism is a viable middle-way approach which would allow psychologists to communally decide on appropriate standards of evidence and interpretation to avoid incommensurability.

Religion and Psychology: Rough Beginnings

Across its history, I suspect that the field of psychology has not paid as much attention to religion for as long as social anthropology has . This remains reflected in the fact that today's typical Oxbridge syllabus for psychology university students does not necessarily cover religion as a topic in its own right, whereas social anthropology typically dedicates a quarter of its discipline to the study of religion. In fact, psychologists do not concern themselves as much with the definition of religion as I believe they should. Psychological texts about religion begin with the caveat that religion is a hard concept to define. This difficulty is credited to the heterogeneity of characteristics observed cross-culturally, and authors proceed with a minimal list of traits that are found across cultures. This forms the basis for an investigation of the relationships that can be determined between religiosity and other traits such as intelligence, social status, demographic factors, etc.

Enduring quarrels between positivism and social constructionism

I argue that the lack of precision in a definition of religion is caused by the inevitable tension between two philosophies in which scientific research can be conducted: positivism and social constructionism, which results in a lack of unified understanding of religion. On the one hand, positivism holds that there is one objective reality that we progressively get closer to discovering (Ladyman, 2001). Social constructionism, however, holds that one objective truth does not exist for everyone, and that information in the world is constructed and interpreted in light of our idiosyncratic experiences (Elder, 2003). Depending on which philosophy a researcher adopts, they will interpret data in different ways and construct different models, leading to incommensurability: the phenomenon where researchers discuss different concepts using the same terminology. On

the flip side, it is also possible to develop different terminologies to refer to the same concept, but these impede progress in understanding because the scientific community is not united in finding what is deemed to be valuable. The tension between positivism and social constructionism also influences what results are deemed valuable too; for the former, a universal understanding of the truth of the concept of religion would be deemed a success, whereas the latter would find the best value in understanding the differences in how different groups practice religion.

An evaluation of research methods in psychology

The difficulty of finding a definition of religion to be used to structure empirical investigations is compounded by the nature of our indirect research tools, hence our necessary reliance on interpretation. Psychologists use both quantitative (e.g., experiments, neuroimaging) and qualitative (e.g., surveys, interviews) measures to explore what religion means to people, but even the most honest interview or the most accurate brain scans will not tell a researcher what it is to subjectively experience religious thoughts or experiences. I do not believe that an outsider's descriptions of mental events can constitute a full explanation of a concept as abstract as religion, because first-hand experience is necessary to fully explain the existence and influence of religion on humanity. I offer an example of a thought experiment developed by the philosopher Frank Jackson (1982), where he proposes the existence of Mary, who lived her entire life in a black and white room; yet, she is a neurophysicist specialising in colour and knows all information about its properties. Jackson argues that when Mary exits her room and sees colour for the first time, she gains a kind of experience that cannot be acquired through reading or study. Similarly, psychologists studying religion will find themselves hard-pressed in wholly understanding the experiences that religious people undergo during religious experiences such as rituals or holidays, especially if they are not religious themselves. I am thus inclined to agree with Jackson's conclusion, and to emphasise that studying religion is an indirect and interpretation-based endeavour.

Subjectivity cannot be avoided

Conducting scientific research necessarily involves interpretation of raw data, as the researcher must select the meaningful information from the noise, making a conscious decision on how to structure it and delineate what conclusions should be drawn. Although it can be argued that social anthropology had a significant head start in acknowledging the subjectivity of a human researcher (i.e., the reflexive, ethnographic method), psychologists likewise try to address the common biases that enter research, both at the level of statistical analysis and at the level of the individual conducting a study. Yet again, the philosophy in which research is conducted determines some of the shortcomings that can occur as a result of subjectivity.

For example, positivist research aims to build models that can be extrapolated to the general population, yet the conclusions that can be drawn are limited by the diversity of the sample. Given the heterogeneity of religions that exist across the globe, insufficiently representative samples can lead to an imposed etic bias that falsely homogenises the concept of religion, relinquishing the ultimate positivist goal of truth-finding. Furthermore, positivist research tackles the problem of human subjectivity by attempting to eliminate all instances where it can occur (e.g., randomising samples), but cannot account for the inevitable instances where it appears. This is potentially dangerous, as emerging subjective value judgements can be presented as objective, true facts, and identifying such a trajectory is of significant ethical importance in socially sensitive research such as religion. A key concern would be the usage of research findings to justify anti-social behaviour, prejudice, and discrimination against people of other religions. On the

other hand, social constructivist work may have the caveat of extreme cultural relativism, which does not help us to explain the mere fact that despite our idiosyncrasies, we share enough of an understanding of the world and each other to collaborate and communicate, or the empirical finding that religious people tend to trust people of other religions more readily than atheists (Tan & Vogel, 2008). These examples suggest that there is a level of understanding between us as humans, and even more so between religious people of differing beliefs, so there is common ground to be investigated.

Embodied cognition expands our frontiers

The impact of interpretation on raw data from the study of religion is inevitable. As previously mentioned, our indirect methods of measurement do not allow us insight in subjective internal experiences, or qualia, which should make up a significant part of research insights if we are to truly and holistically understand religion. The concept of embodied cognition further justify this claim, suggesting that the holistic experience of a human is a result of the interaction between the mind and the body, and that mental events cannot be understood in isolation from the physical context in which they occur (see Shapiro, 2011; Shapiro & Spaulding, 2021). In this manner, it is not sufficient to record a participant's physiology when they undergo a religious experience, and neither is it sufficient to interview or record them, without attempting to combine the two phenomena. The reality of research is that most studies do not even attempt to combine the impact on both the mind and the body by combining these research methods, for what I speculate lack of funds and time.

The scientific community has a choice to make about the standards they ought to set in what constitutes research that is good enough to explain religion. The flexibility of "laws" (or regularities in human behaviour) in social sciences allow for the sensible option of a middle ground between positivism and social constructionism to account for the inconsistencies of each philosophy. An approach that would productively compromise between the two positions would be that of critical realism (Pilgrim, 2019), suggesting that there exists an external world which our senses can interpret objectively, but acknowledges the role of perception and other psychological and physical processes which impact how this world is constructed in our minds. I believe that this approach would also pay significantly more homage to the importance of embodied cognition, especially in the context of religion. Finally, I hold that such an approach would be able to account for possible differences in mental mechanisms employed in different types of religious behaviour. For example, the article describes the employment of Theory of Mind in the conceptualisation of God's voice in The Vineyard practitioners (Luhrman, 2012), and mechanisms of belonging and intergroup relations when engaging in human-led religious events. Perhaps these mechanisms employ different mental strategies and elicit different qualia, and it is up to the scientific community as a whole to determine how to best approach the study of religion with the importance of embodied cognition in mind.

Conclusion

I suggest that the middle-way approach between positivism and social constructionism of critical realism will help to avoid incommensurability, ensuring that focus is wholly on the abstract concept of religion. I argue that religion need not be such an abstract concept if we pay enough attention to the importance of embodied cognition, and if the samples used in studies are representative enough to draw conclusions from. Ultimately, it is the decision of the scientific community to determine the standard needed to create meaningful research, but it also has a responsibility to acknowledge the subjectivity that comes along with this creation.

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