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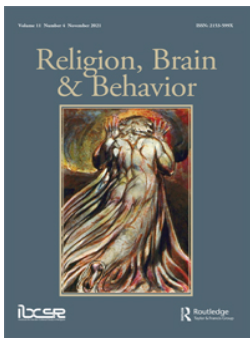
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## From supernatural punishment to big gods to puritanical religions: clarifying explanatory targets in the rise of moralizing religions

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We applaud the authors' impressive effort in compiling the *Seshat* database, as well as the remarkable Analytic Narratives they produced on supernatural punishment. This project undeniably helps the field advance towards testing historical predictions of cultural evolutionary theories—including by sparking key methodological discussions (Beheim et al., 2021; Slingerland et al., 2020). The target article's findings, should they be confirmed (see Purzycki et al., 2022 this issue), bring important new information regarding the role of warfare, pastoralism, and agricultural productivity in predicting the rise moralizing religions.

We here focus on the measurement of moralizing religion. While previous research often used binary measures (e.g., presence/absence of moralizing gods), the authors' coding includes seven features, allowing to capture *degrees* of moralizing religion. This is particularly pleasing since a growing body of evidence suggest that belief in a least some form of supernatural punishment in fact recurs in small-scale societies—constituting a non-zero “baseline” of moralizing religion across societies of all scales (Bendixen et al., 2021; Fitouchi & Singh, 2022; Purzycki et al., 2020; Singh et al., 2021; Watts et al., 2015). The question of the rise of moralizing religion thus becomes: What factors drive the evolution of religion *from this baseline*—limited supernatural sanctions within a misfortune-centered religious ecology (Boyer, 2020; Singh et al., 2021)—to moralizing “big gods” (or karmic forces) whose moral concern is broader and primary.

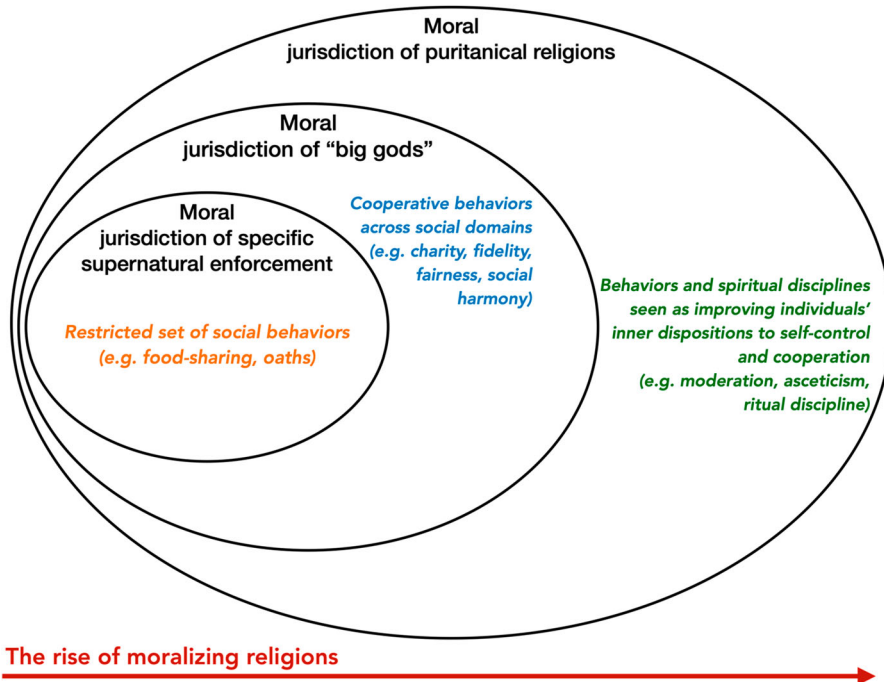
We suggest, however, that the authors' measure still fails to capture the entire range of moralizing religions, and thus misses part of what is to be explained in the rise of moralizing religions. The most culturally successful “world religions” (e.g., Christianity, Islam, Hinduism, Buddhism, Confucianism, Judaism) are not just “big gods” religions, incentivizing cooperation through the threat of a broad, primary, certain, and targeted supernatural punishment. They instead appear more profoundly geared towards achieving *the inner moral reform of individuals*, by reshaping the self's internal disposition to self-discipline and moral behavior (see Baumard et al., 2015a; Fitouchi et al., 2021a).

These puritanical (or “disciplinary”) religions, as we may term them (Fitouchi et al., 2021a, 2021b), provide believers with self-control techniques (e.g., fasting, meditation, regular prayer) aimed at taming their base impulses, training their self-discipline, and cultivating prosocial motivations (Confucianism: Csikszentmihalyi, 2009; Slingerland, 2014; Tiwald, 2020; Christianity, Platonism, Stoicism: Gaca, 2003; Spiegel, 2020; Hinduism: Doniger, 2014; Glücklich, 2020; Islam: Garden, 2014; Buddhism: Goodman, 2017; Thurman, 2002; Protestantism: Gorski, 2003). Their rituals aim at “carving or reshaping the self” to “replac[e] innate, problematic dispositions with new, socially desirable ones” (e.g., Confucian ritual propriety: Slingerland, 2014, pp. 70–80; penance and confession: Olivelle, 2011; Tentler, 2015). To this aim, they also further expand the scope of

moralization and supernatural enforcement, by condemning not only intrinsic violations of cooperative norms (e.g., stealing, infidelity), but also people's private lifestyles, vicious habits, or sinful mental states, that may indirectly favor uncooperative behaviors (Fitouchi et al., 2021b)—such as gluttony, drinking, gambling, lustful thoughts, immoderate sexuality, excessive pride, envy, anger or laziness (Christian “Seven deadly sins”: Hill, 2011; Newhauser & Ridyard, 2012; Hinduism: Doniger, 2014; China: Yü, 2021).

In sum, these puritanical religions are *more moralizing than the maximum value* of the target article's dependent measure: they are one step further on the spectrum of “moralizing-ness,” compared to religions that may include moralizing “big gods” yet seem to lack these ascetic, spiritual, puritanical features (e.g., in Egypt, Mesopotamia, pre-imperial China). While the authors' results obviously remain informative, future efforts to test the contribution of various factors in the “rise of moralizing religions” would benefit from considering the full spectrum of moralizing religiosity (see Figure 1). Extending previous distinctions (Singh et al., 2021; Watts et al., 2015), we suggest that this spectrum spans the following three “ideal types,” differences between which is a matter of degree:

- (1) *Specific supernatural enforcement*, which refers to beliefs in the supernatural punishment of a small range of moral violations (e.g., stinginess), and admonished by spirits with lesser powers and lesser interest in morality than moralizing “big gods.” Such beliefs appear recurrent in small-scale societies (Bendixen et al., 2021; Boehm, 2008; Purzycki et al., 2020; Singh et al., 2021; Townsend et al., 2020; see also Watts et al., 2015), where they seem to emerge in the middle of a religious ecology otherwise mostly centered on managing misfortune, rather than on promoting cooperation (Boyer, 2020; Singh et al., 2021).
- (2) *Religions with moralizing “big gods” (or non-agentic forces)*: beliefs in supernatural entities that are centrally concerned with human morality, have a broader moral jurisdiction, and greater powers (e.g., afterlife retribution) (Norenzayan, 2013; Norenzayan et al., 2016).



**Figure 1.** Schematic representation of the gradual extension of religions' moral jurisdiction.

- (3) *Puritanical religions*: beliefs and rituals aimed at promoting morality, not only through the threat of supernatural punishment, but also through a range of spiritual techniques aimed at molding the individual psychology (see Fitouchi et al., 2021a). This implies prescription of self-control techniques, and further extension of moralization to private behaviors seen as corrupting character (e.g., overindulgence in addictive pleasures) (see Fitouchi et al., 2021b).

The evolution of religion in Ancient Greece may offer a useful illustration of such a gradual evolution (for a longer discussion, see Veyne, 2005):

- (1) In the Greek Bronze Age and at the beginning of the Archaic period, supernatural forces seem to have little concern for inter-human cooperation. Gods are mainly interested in restoring justice when humans violate obligations toward *them*; and are said to punish only a restricted set of moral violations (e.g., oath-breaking; Burkert, 1985; Sommerstein & Torrance, 2014; Veyne, 2005)
- (2) Throughout the Archaic period, belief in supernatural punishment for general wrongdoing appear to slowly emerge. The gods (and in particular Zeus who becomes the god of justice) are increasingly said to be good, to prefer good people, and to want virtue to be rewarded (see, e.g., Hesiod; Bernstein, 2020; Burkert, 1985; Veyne, 2005).
- (3) In Classical and Hellenistic Greece, in addition to belief in big gods-like supernatural punishment (e.g., afterlife retribution in Plato's myth of Er) (Bernstein & Katz, 2010), spiritual movements that moralize asceticism, moderation, and self-control are increasingly prevalent (e.g., Pythagoreanism, Platonism) (Finn, 2009; Gaca, 2003). Doing good is not enough: one must *cultivate* virtue in oneself by practicing restraint and temperance (Gaca, 2003; see also Kraut, 2018).

Finally, such clarifications may prevent potentially sterile controversies between theories that have somewhat different explanatory targets. Some theories of moralizing religion appear aimed at explaining the recurrence of beliefs in supernatural punishment of any kind, across a broad range of societies of all scales (Fitouchi & Singh, 2022; Johnson, 2015; Purzycki et al., 2021). Among those aimed at explaining the increasingly moralizing character of religious traditions in history, scholars have debated whether this transition occurs in large-scale, post-Neolithic societies (e.g., Norenzayan et al., 2016), or in more economically developed societies (Baumard et al., 2015a). This debate seems to partly stem from the fact that these theories have somewhat different—albeit overlapping—explanatory targets. Some aim at explaining the rise of “big gods” (Norenzayan et al., 2016; Peoples & Marlowe, 2012; Turchin, 2016), while the affluence hypothesis initially thought to explain the rise of puritanical religions and ascetic wisdoms specifically (Baumard et al., 2015a, 2015b; Baumard et al., 2018; Fitouchi et al., 2021a). Shedding more light on this multifaceted rise of moralizing religions will obviously require more quantitative assessments such as those carried out by the *Seshat* project, whose future developments we very much look forward to.

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