Historical Transformation of Religious Beliefs

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Abstract

Human societies across space and time believe in supernatural beings like gods and spirits. Here we consider how these religious beliefs evolve and why some societies give the same traits to their gods. We build a new database of 3,338 ethnographic and historical documents from 109 societies with local religious traditions. Focusing on the records of 850 gods from these societies, we code each god on 50 traits (e.g., moralistic punishment, multiple forms). Some traits, like possessing a gender and a mind, are prevalent worldwide. However, the prevalence of many traits depends on ethnographer identity (e.g., missionary), and on the geographic and historical characteristics of the society. We find little evidence that ecological abundance and social complexity explain this geographic and historical variation. Instead, our analyses underscore the role of hybridization with world religions. Comparing our ethnographic codes with a 38-country survey of 8,027 religious individuals, we find that characteristically Abrahamic religious beliefs rose across history and were most prevalent in societies close to major colonial powers. Our results illustrate a historical and regional transformation of religion, but suggest that social complexity and ecology played little role in these processes.

Historical Transformation of Religious Beliefs

Religions are highly diverse, yet share systematic similarities[1]. Many religions include beliefs in supernatural agents, including spirits, demons, and djinns, which we refer to here as “gods.” In many religions, people believe that gods possess moral codes, genders, and special powers. Sometimes, different religious traditions believe in gods with remarkably similar traits. For example, the Yoruba and Inuit people, despite living thousands of miles apart, both believed in sea goddesses who governed women's fertility[2,3]. How did these beliefs evolve, why are some religious beliefs more similar than others, and have religious beliefs changed systematically over time? Answering these questions is central to understanding the history of human religion and the underlying psychological and cultural forces that drive religious change.

Two scientific traditions offer distinct theories of how religion evolves. These theories seek to explain the evolution of many beliefs ranging from taboos to magical thinking, but they most often focus on gods, and the traits that people ascribe to gods[4,5]. One cognitive tradition posits that humans have innate cognitive biases that constrain these traits[6]. One such cognitive bias is egocentrism, the tendency to anchor on personal beliefs and experiences when reasoning about others[7,8]. Scholars since Xenophanes have argued that egocentric bias promotes belief in anthropomorphic gods which have human-like bodies, minds, and habits[9]. A second cognitive bias to perceive intentional agency behind random events may lead people to also view gods as interventionist, interpreting rain as divine help and flooding as divine harm[6,10]. A third bias to remember counterintuitive information may lead people to develop beliefs in gods with special abilities (e.g., walking on water) more frequently than those with no special powers[11,12].

Cognitive theories of religious belief acknowledge cultural variation, but they tend not to predict this variation because of their focus on universal capacities[13]. A second, cultural evolutionary tradition, is primarily focused on understanding the evolutionary processes that create systematic variation in religious beliefs across societies[14,15]. Cultural evolutionary theories share a premise that religious beliefs spread through cultural transmission[16], predicting that societies with the most contact and communication should ascribe similar traits to gods, and that these beliefs should historically change as groups interact and face new selection pressures[17,18].

Some cultural evolutionary theories also make functionalist claims, which predict that ecology and social structure should correlate with beliefs in gods. For example, several theories suggest that beliefs in moralizing and punishing gods co-evolve with social complexity, because supernatural punishment beliefs increase cooperation in large-scale societies and reduce the costs associated with secular systems of punishment[15,17,19,20]. Tightness-looseness theory predicts that these religious beliefs should also co-evolve with ecological scarcity because the threat of scarcity creates pressures to cooperate and coordinate[21–23]. Other adaptationist models have predicted that people living in socially complex societies should also be more likely to believe in gods requiring blood sacrifice[24], and in “universalist” gods who influence and monitor human activities in other societies[25]. The former belief is theorized to stabilize social relations in socially stratified societies, whereas the latter belief is theorized to provide a unifying social identity in diverse empires (e.g., Christianity in the late Roman Empire)[24,25].

These cognitive and cultural traditions offer a range of different predictions about whether and how gods should vary around the world. Cognitive theories of religion suggest that key traits of gods, such as their possession of humanlike bodies and minds, special abilities, and their tendency to intervene in human life should be culturally widespread. Cultural evolutionary theories further predict that societies with frequent historical contact should have the most similar religious beliefs, and some of these theories further predict that social complexity and ecological abundance should correlate with gods' moralistic punishment, concern about norm abidance, ritualistic associations, and influence beyond the local community.

Many prior studies have tested these predictions using laboratory experiments and cross-cultural analyses of ethnographic records. In support of cognitive theories of religion, laboratory studies have shown that people intuitively hold egocentric views that gods share their own concerns and physical characteristics[7,8,11,26], and cross-cultural studies have reported evidence that people in diverse world regions attribute naturalistic phenomena (e.g., plagues, droughts) to divine intervention[27]. In support of functionalist cultural evolutionary predictions, laboratory studies have found that people who believe in moralizing high gods donate charitably to co-religionists in economic games[19,28,29], and cross-cultural studies have reported that moralizing high gods were most prevalent in socially complex and ecologically scarce societies[21,30,31]. There has been debate about whether moralizing gods preceded social complexity or vice versa[25,32], but our research does not address this debate.

These past studies have significantly contributed to how we understand the evolution of religion. However, they face core limitations stemming from the historical spread of world religions. Over the last 2,000 years, major religions like Christianity, Islam, Judaism, Hinduism, and Buddhism have spread around the world, with over 90% of individuals today identifying with one of these groups and more than 50% identifying as Christian or Muslim[33]. This means that people from different countries may ascribe the same traits to gods because of their closely related religious doctrines, rather than more fundamental cognitive biases or socioecological factors. Cross-cultural ethnographic studies seek to overcome this limitation by including historical societies, but many of the societies in ethnographic databases, like the Irish Celts, Ottoman Turks, Romans, and Fellahin Egyptians, had adopted Abrahamic doctrines prior to their ethnographic documentation. It is therefore difficult to attribute the religious characteristics of these societies to their social complexity, ecological conditions, or simply to the diffusion of Abrahamic doctrine.

Cross-cultural studies also face two additional limitations associated with developing quantitative datasets using qualitative written records. First, some of the source material in these records may overreport the prevalence Abrahamic beliefs because of author biases[34]. For example, when documenting Zulu religious beliefs in the 19th century, Christian missionaries frequently drew false parallels between the Zulu sky god Unkulunkulu and the Christian God[35]. Second, the quantitative codes that researchers develop using historical records might be biased by Abrahamic conceptions of God. For example, many cross-cultural studies of moralizing religious belief focus on a single "High God" variable in the Ethnographic Atlas. However, this variable conflates several factors—including creator status, interventionism, and

moral concern—that co-occur in the Christian God, but may not co-occur in other culture's moralizing gods, leading to erroneous classifications (see supplemental materials).

A New Database of Religious Beliefs

The goal of our paper is to test major predictions from evolutionary theories of religious belief while recognizing and modeling the influence of modern world religions. We construct a new database of regional religious beliefs across cultures and throughout history, and combine this original database with socioecological data from existing cross-cultural databases. We also collect extensive meta-data about the volume, authorship, field dates and reliability of source documentation. Our analyses then test predictions about universality and cultural variation in how regional religions conceptualize gods. We also explore whether contact and hybridization with world religions may explain historical and regional religious variation by comparing our codes with a 38-nation survey of religious beliefs among adherents to modern world religions.

We present our analyses across three major sections. The first section focuses on understanding which traits of gods are most prevalent across societies. We report the traits that seem to be the most and least cross-culturally prevalent, as well as traits whose prevalence depends on who authored ethnographic documentation, such that they might be described commonly by missionaries but rarely by social scientists.

The second section of our paper is devoted to understanding religious variation. We test whether societies' geographic location, date of documentation, linguistic phylogeny, ecological abundance, and social complexity correlate with variation in the traits ascribed to gods. In these models, we also control for a set of variables that we subsequently call "source characteristics": volume of ethnographic documentation, ethnographer identity, publication date of ethnographic documentation, and reliability of ethnographic documentation according to eHRAF. Controlling for these source characteristics helps us draw meaningful conclusions about religious variation above and beyond the characteristics of the ethnographic material that we analyze.

In our third and final section, we model potential hybridization between historical religious beliefs in non-industrial societies and modern world religions. To quantify the religious beliefs of modern world religions, we conduct a worldwide survey of 8,027 representative religious individuals from 38 countries, measuring how people perceive the same traits that we measured in our ethnographic coding process. This survey contains Christians (n = 4,627), Muslims (n = 1,567), Buddhists (n = 854), Hindus (n = 437), Jews (n = 224), Taoists (n = 203) and members of other religions (n = 115). We use these data to test how the variation we observed in our second section aligns with the beliefs of current-day adherents to world religions.

The picture emerging from these analyses includes cross-cultural similarities and variation. Whereas traits related to interventionism and anthropomorphism are common in gods across societies, others such as moralistic punishment and regulation of sexual behavior became more prevalent over time, and were more prevalent in societies near Europe. In our sample of 850

gods and 109 societies, religious variation seems strongly tied to hybridization with world religions, and less tied to ecological abundance and social complexity.

Results

Database and Coding Overview

The 3,338 documents in our database ranged in their field dates from 6,000 BCE to 2007 CE, with a median field-date of 1920. We sampled 109 societies from the Standard Cross-Cultural Sample to obtain these documents, selecting societies that practiced local religious traditions, rather than major world religions like Christianity and Islam. For example, we did not include societies such as the "Russians," "Egyptians," and "Irish," large nations states practicing world religions. Otherwise, the sample included societies that spanned multiple world regions, and ranged widely in their social complexity and colonial contact (see Figure 1). We have hosted all of our raw textual material from these documents online at https://osf.io/wf39e/.

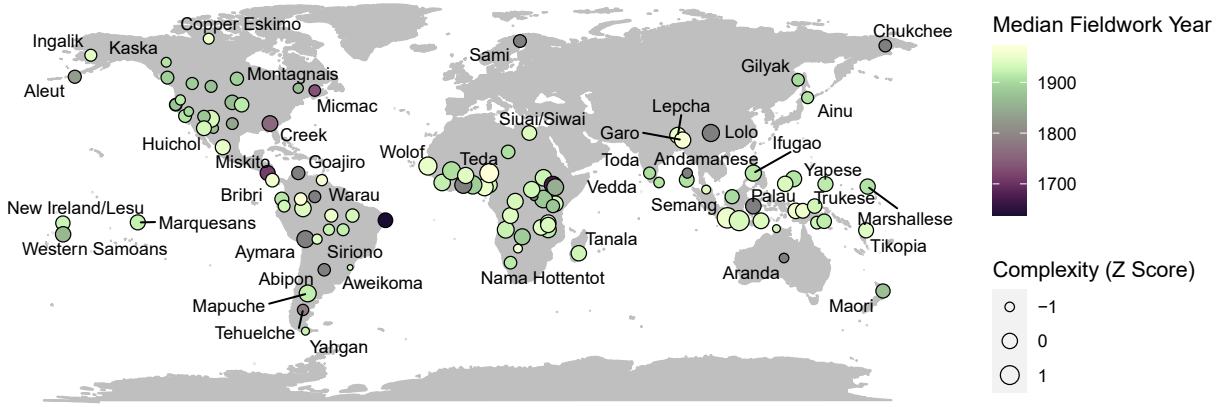

Figure 1. The Geographic Location of the 109 Societies in our Sample. Node size indicates social complexity according to Murdock and Provost's index[36]. Node color indicates the median date of field research across ethnographic documentation. Nodes are labeled except when they are too densely clustered to assign unique labels.

We identified 2,377 "gods" in these documents. Examples of gods included "Aeoina," the Ainu god who created man, and was given the mocking nickname "person smelling of men" by his fellow gods because he wore human clothing upon returning to heaven; "Eruncha," a class of spirits whom the Aranda people believed to capture children after dark, and who were known to give shamans their magical powers; and "Girgasi," who the Iban people believed to hunt and kill people. Supplementary Table XX provides examples of 20 gods, classified according to the societies and the ethnographic material in which they were documented.

We selected a sample of 850 gods with the most extensive documentation, and coded these gods on 50 traits in an effort to analyze dimensions of religious variation that may have been neglected by prior research. We coded each trait as "present," "absent," or "uncertain" when there was insufficient or conflicting information. Our three-year coding process involved phases in which codes were assigned, checked, and then audited by external experts in anthropology

and religious studies. The average agreement rate was 98.02%, and the lowest agreement rate across all codes was 94.47%. In cases of disagreement, we discussed the differences, and adopted the auditors' suggestions. We summarize the coding process in depth in our supplemental materials. For parsimony, when summarizing the codes below, we sometimes use "religious beliefs" as shorthand for beliefs about the traits that gods possess.

Global Prevalence of Religious Beliefs

Our first set of analyses focused on the most common traits across societies. The single most common trait, present in 90.08% of societies, was that gods had a gender. Many societies also believed that gods acted prosocially to humans (83.48%), intervened in specific ways in human life (76.15%), had superhuman abilities (74.31), acted antisocially to humans (73.39%) and lived in an earthly location (73.39%). Beliefs that gods had superhuman abilities and psychological capacities like the ability to think and plan (71.56%) were unique because we found evidence of that these traits were present in most societies, but did not once find evidence that these traits were absent. Panel 1 of Figure 2 illustrates the proportion of societies where each trait had evidence of presence and absence.

In general, most societies characterized gods as interventionist, humanlike, but also possessing special abilities. Some of these traits are notably different from Abrahamic conceptions of God, but they are consistent with cognitive theories, which argue that religious beliefs around the world are constrained by cognitive biases to view agents as anthropomorphic, interventionist, and as extraordinary in some counterintuitive way.

In some cases, traits covaried highly with one another. Gods who took multiple forms were also commonly believed to take animal form ($r = 0.46$), and gods who created the world were also commonly believed to have created human life ($r = 0.64$). To avoid treating redundant traits as independent, we performed a dimension reduction analysis that identified highly colinear traits and collapsed across these traits (see supplemental materials). This left 39 distinct traits that we analyzed in our subsequent models.

We next tested how the prevalence of traits depended on who had authored records about the society. Compared to social scientists, missionaries were significantly more likely to report that gods were "jealous" (disliking worship of other gods), existed in hierarchies, regulated sexual behavior, were "high gods," required ritual practice, were all-powerful creators, and engaged in moralistic punishment. Compared to social scientists, bureaucrats were more likely to report that gods engaged in moralistic punishment, required ritual practice, were all-powerful creators, aged, only communicated with privileged individuals, showed human emotions, and required that humans believe in them. These effects are illustrated in Figure 2, and Table 1 reports the key beliefs that significantly deviated across our three major source types. Supplemental Table X lists the statistics for all traits.

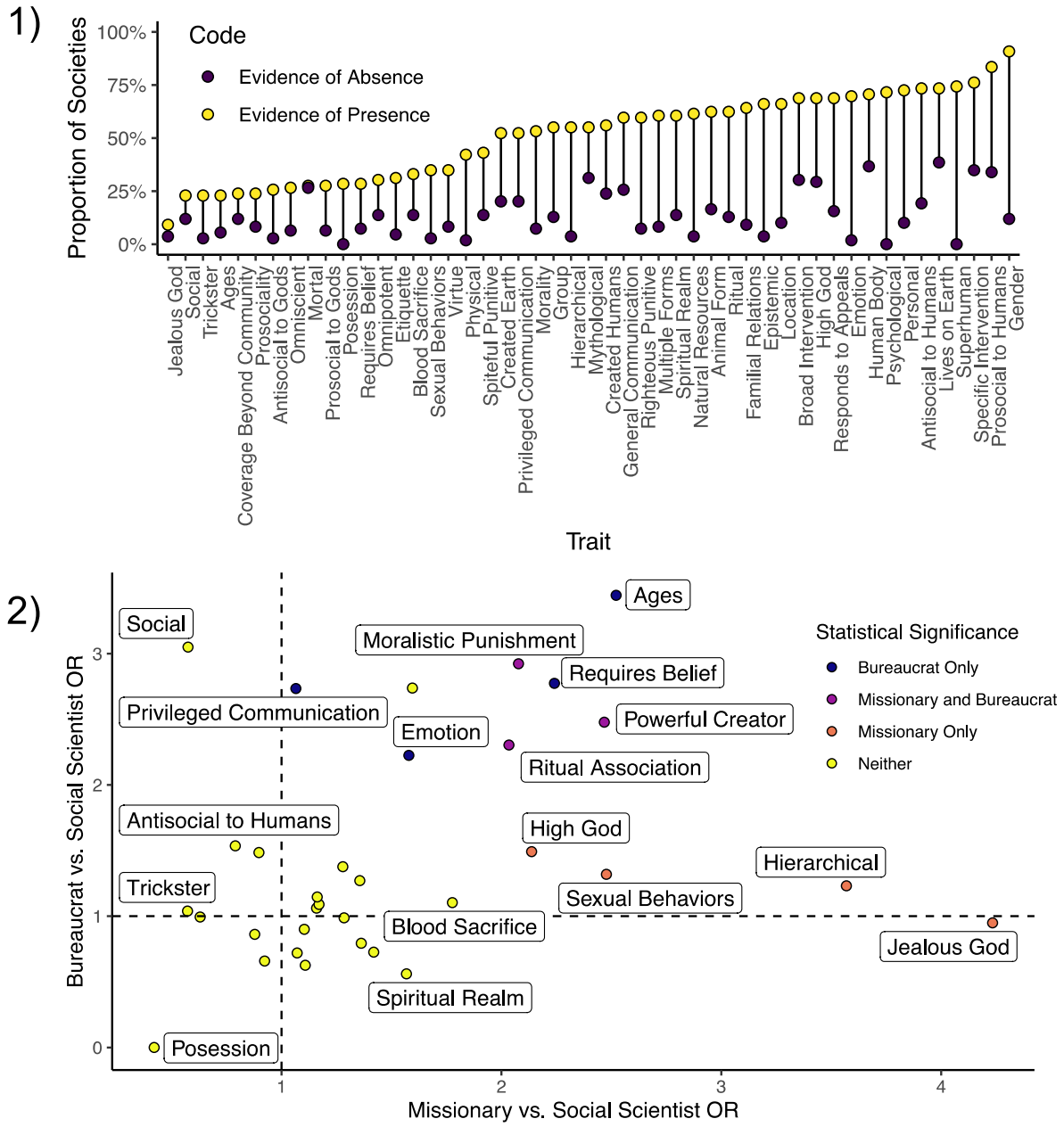

Figure 2. Prevalence of Religious Beliefs and Source Variation. Panel 1) Features based on the percent of societies in which the religious belief was present (yellow) and the percent of societies in which the religious belief was absent (purple). Panel 2) The odds ratios from models investigating the prevalence of different religious beliefs in societies documented by missionaries vs. social scientists (x-axis) and bureaucrats vs. social scientists (y-axis). The dashed line represents an odds ratio of 1, meaning that beliefs were equally likely to be reported by the two kinds of sources. Nodes are shaded based on whether they were significantly more likely to be reported by missionaries (orange), bureaucrats (blue), or by both missionaries and bureaucrats (purple) compared to social scientists. Significant nodes are also labeled.

Table 1.
Features of Gods by Ethnographer Identity

Feature of Gods	Missionary OR, 95% CIs	Bureaucrat OR, 95% CIs
Ages	2.45 [0.87, 6.93]	**3.72 [1.29, 10.73]**
Emotion	1.58 [0.97, 2.59]	**2.28 [1.29, 4.04]**
Hierarchical	**3.46 [1.71, 7.04]**	1.13 [0.52, 2.47]
High God	**2.09 [1.19, 3.67]**	1.37 [0.71, 2.64]
Jealous God	**4.68 [1.27, 17.26]**	0.83 [0.10, 7.24]
Privileged Communication	1.08 [0.56, 2.10]	**2.77 [1.36, 5.64]**
Requires Belief	2.23 [0.84, 5.97]	**2.77 [1.01, 7.57]**
Sexual Behaviors	**2.45 [1.30, 4.65]**	1.49 [0.64, 3.47]
Powerful Creator	**2.54 [1.34, 4.80]**	**2.37 [1.22, 4.60]**
Ritual Association	**2.00 [1.20, 3.34]**	**2.28 [1.21, 4.29]**
Moralistic Punishment	**2.10 [1.20, 3.68]**	**2.90 [1.50, 5.60]**

Note. Effects are contrasted with social scientists. Bolded coefficients are statistically significant.

Why did these traits vary depending on author identy? One interpretation is that missionaries and bureaucrats were biased to view similarities between local religions and their own Abrahamic beliefs, which led them to falsely ascribe Abrahamic traits to local gods. Another complementary interpretation is that missionaries and bureaucrats had a stronger influence than social scientists on the religious beliefs of the societies that they recorded, and they intentionally or unintentionally changed religious beliefs in these societies in a meaningful way.

Explaining Variation in Religious Beliefs

Whereas our first analyses dealt with cross-cultural similarities in religious beliefs, our second set of analyses focused on variation. We took a pairwise regression[37,38] approach to this analysis, where we could test whether pairs of societies with similar religious beliefs also had similar geographic, linguistic, historical, social, and ecological characteristics.

We started by creating a measure of "religious distance" between pairs of societies using the formula $D = \sum_{i=1}^{39}(|p_{i1} - p_{i2}| + |a_{i1} - a_{i2}|)$, where *i* represents a given trait, p_1 and p_2 represent the presence of this trait in a pair of societies, and a_1 and a_2 represents the absence of this trait in a pair of societies. Accounting for similarity between societies based on absences as well as presences addresses the possible conflation of "absence of evidence" and "evidence of absence" which can hamper ethnographic analyses[39]. The results were substantively identical regardless of whether we included absence in this equation (see supplemental materials).

The minimum possible *D* score in this formula is 0 (if gods in two societies have identical traits), and the maximum is 80 (if gods are different in every way). Notably, the mean pairwise *D* score in our sample was 24.80, significantly lower than we would expect if god concepts varied randomly across societies, $t(5{,}885) = 261.73$, $p < 0.001$. Nevertheless, the scores still had a wide range. For example, religious beliefs among the Trumai people of modern Brazil were

highly similar to the beliefs of Siriono people of modern Bolivia (*D* = 3), but much less similar to the Copper Inuit people of the Arctic Circle (*D* = 56).

Why did some societies share more similar religious beliefs than others? We tested this question using a pairwise mixed effects model[37,38], which regressed our religious distance index on several other distance metrics with special significance to cultural evolutionary theories of religion: geographic distance, historical distance (based on field date), linguistic distance, ecological abundance distance, and social complexity distance. Our measure of ecological abundance was a composite of temperature, rainfall, and fauna and flora availability first developed by Botero and colleagues[30]. Our measure of social complexity was the Murdock and Provost composite index used in several prior studies of non-industrial societies[21,27]. In this regression, we also controlled for source characteristics, so that significant effects would represent a meaningful correlation between religious variation and our key predictors, above and beyond confounding variation from source characteristics.

This regression found that religious distance was positively correlated with geographic and historical distance. Societies in close geographic proximity and societies documented at the same time ascribed similar traits to their gods. However, ecological abundance and social complexity did not significantly explain religious variation. Linguistic distance was also not a significant predictor. Since linguistic distance is commonly used to measure cultural ancestry[40], this suggests that religious beliefs were more strongly transmitted through borrowing (horizontal transmission) than through inheritance (vertical transmission) in our sample. The limited role of linguistic distance might be a product of our diverse sample of societies, as prior analyses of closely related societies have found linguistic similarity to be a more meaningful predictor[24,41].

Table 2.
Correlates of Variation in Religious Beliefs Across Societies

Variable	***b***	***SE***	***df***	***t***	***p***	**95% *CI*s**
Key Fixed Effects						
Social Complexity	-0.11	0.22	5837.82	-0.55	0.64	-0.52, 0.32
Geographic Location	0.48	0.10	5801.84	4.60	< 0.001	0.27, 0.68
History (Field Date)	0.50	0.12	5848.00	4.14	< 0.001	0.26, 0.74
Language	1.27	3.46	4589.87	0.37	0.71	-5.51, 8.05
Ecological Abundance	0.03	0.04	5811.30	0.69	0.49	-0.05, 0.10
Source Covariates						
Publication Year	-0.01	0.005	5853.62	-1.32	0.19	-0.02, 0.003
Source Reliability	-0.06	0.16	5433.34	-0.40	0.69	-0.37, 0.25
Source Volume	0.03	0.001	2444.36	19.17	< 0.001	0.03, 0.03
Source Type	-0.35	0.25	5870.15	-1.42	0.16	-0.84, 0.14

Note. All variables in this regression represent pairwise distance scores.

How do these results relate to cultural evolution theories of religion? On the one hand, the effects of geography and history suggest that religious beliefs are culturally transmitted, and that religious beliefs have changed over the last several centuries, consistent with cultural evolutionary models. On the other hand, theories that religious beliefs co-evolve adaptively with ecological abundance and social complexity were less supported by our results.

One possible reason for these null effects is that our model was aggregating religious variation across many traits when, in reality, ecological abundance and social complexity only correlate with variation in specific traits, such as moralistic punishment. To examine this possibility, we refit our regression for each specific religious belief sequentially, and then estimated whether variation in geography, history, ecological abundance, and social complexity could explain religious variation, adjusting the alpha values to correct for the 39 different trait comparisons.

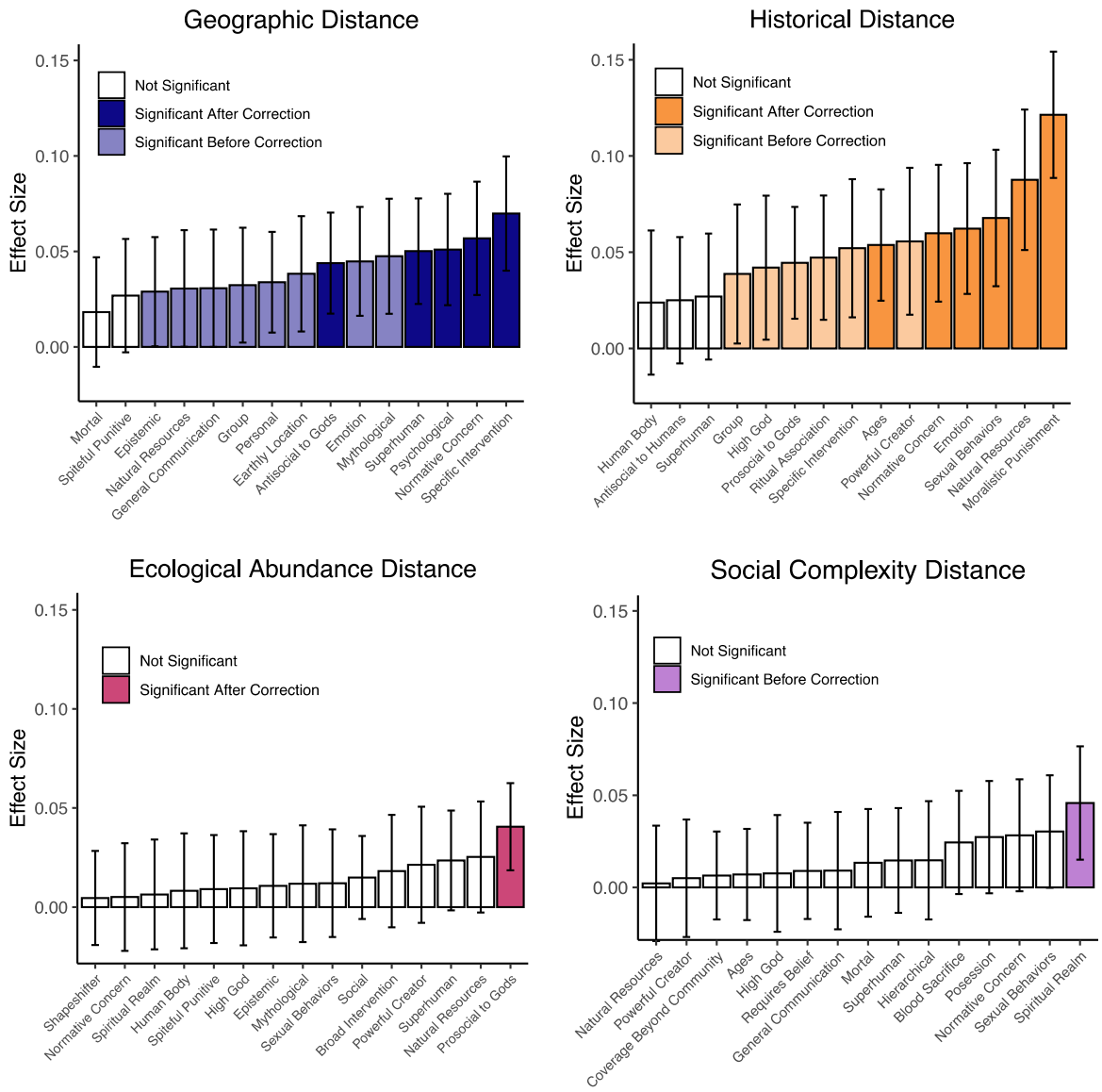

Figure 3. Quantifying and Explaining Religious Variation Across Societies. Regressions from pairwise regressions in which religious distance on each trait along the x axis was regressed on distance on each of the four metrics. The bars of each plot are standardized beta values from these regressions. The error bars represent confidence intervals. The fill color of the bars represents whether each metric was significant before and after adjusting alpha values for multiple comparisons.

These models, whose results are displayed in Figure 3, revealed few significant associations involving ecological abundance and social complexity. The light bars in this figure show results that were significant without correcting for multiple comparisons, and the dark bars show results that remained significant after the correction. After applying the correction, ecological abundance was only significantly associated with gods' prosociality to other gods, whereas social complexity was not significantly associated with any traits. Results were similar when we fit zero-order models involving ecological abundance and social complexity, rather than testing for the effects of these variables in models that also included geographic and historical distance (see supplemental materials for all models).

In contrast, a much broader set of traits correlated with geographic and historical variation, even after adjusting for multiple comparisons. For example, geographic variation was significantly associated with variation in beliefs about gods' specific interventions (e.g., the regulation of menstrual cycles or the timing of rainfall), gods' normative concerns, and whether gods were anti-social to other gods. Historical variation was significantly associated with variation in beliefs about gods' moralistic punishment, regulation of natural resources, regulation of human sexual behavior, emotional capacity, and status as a creator.

These analyses are useful for showing which religious beliefs vary across space and time, but they also pose puzzles. Cultural evolutionary theories suggest that societies in close geographic proximity should have similar religious beliefs partly because of their shared ecologies, yet ecological abundance did not explain the effect of geography in our models. Likewise, several theories suggest that religious beliefs have changed over time because of rising social complexity, but social complexity did not explain the historical variation in our models.

Why, then, were geography and history such strong predictors of religious variation in our sample, and why did they predict particular traits like moralistic punishment and regulation of sexual behavior? We explore these questions next, testing whether geographic and historical variation in these traits could reflect varying levels of hybridization with Abrahamic religions.

Quantifying Hybridization with World Religions

During the 19th and 20th centuries, Abrahamic religions diffused around the world through missionization and conquest. Even when local religious traditions did not adopt world religions wholesale, they often hybridized with world religions by taking on Abrahamic qualities[42]. One possibility is that this hybridization varied systematically, manifesting more often as time passed, and manifesting least often in societies that were geographically distant from major colonial powers. If this were the case, we would expect traits characteristic of Abrahamic religions to be most prevalent later in history, and to be least prevalent in societies that were geographically distant from major colonial powers. We tested these associations in our final set of analyses.

The first step in these analyses was to determine which traits had risen most over time, and which traits were most prevalent farther from major colonial powers. We obtained these

estimates through a series of logistical regressions, which we report in detail in our supplemental materials. All regressions controlled for source characteristics, to adjust for the fact that societies documented later in history may have been described more thoroughly or by different kinds of sources. To quantify proximity to colonial powers, we measured each society's geographic distance from London using the Vincenty formula, which measures great-circle distance between two points on earth. We selected London because it was the largest European economy during the 19th and early 20th century, when most of the societies in our sample were documented. However, results are similar using alternative coordinates representing other hubs of Abrahamic religion (e.g., Rome, Istanbul).

In these models, moralistic punishment, regulation of sexual behavior, aging, prosociality to other gods, and normative concern were among the traits that had risen most over time. Some of these traits rose dramatically. For example, beliefs in gods who regulated sexual behavior rose from fewer than 20% of 19th century societies to over 80% of societies documented in the 21st century. Conversely, beliefs that gods had a human body, behaved anti-socially to one another and to humans, and had physical sensations were among the traits most strongly correlated with distance from London. Figure 4 illustrates the prevalence of key traits across history, and the x-axis of Figure 5 displays the odds ratios across traits from these regressions.

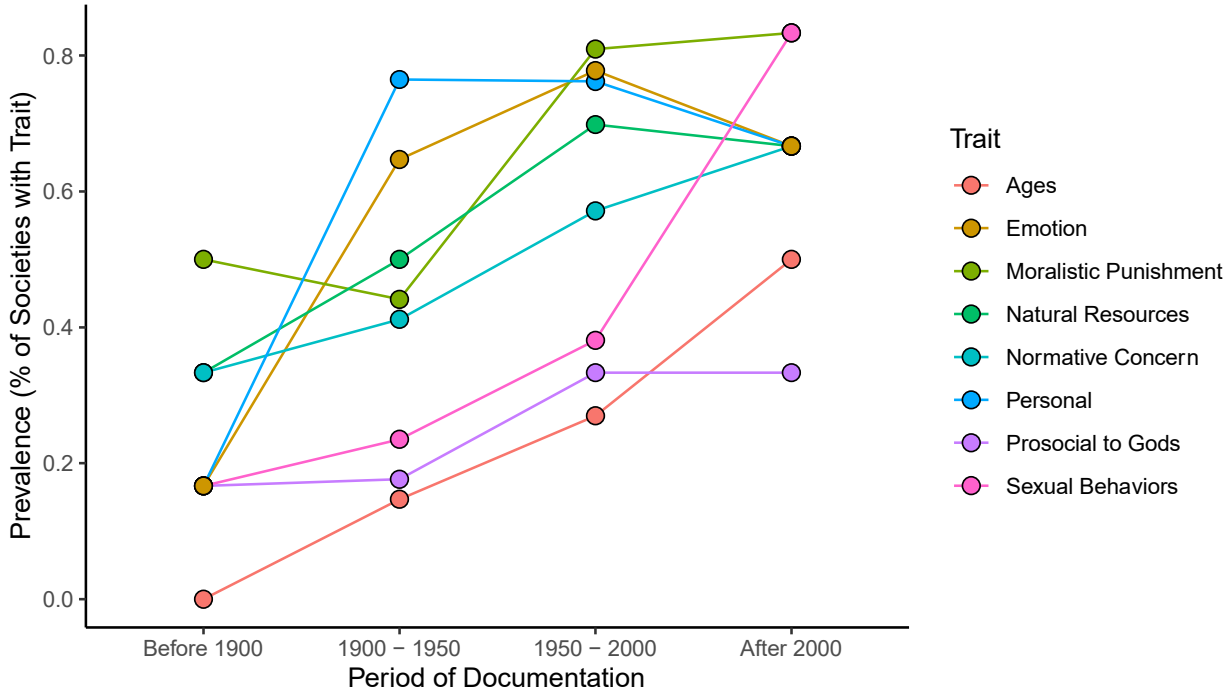

Figure 4. Historical Variation in Religious Beliefs. The proportion of societies showing 8 religious beliefs across 4 different historical intervals. We visualize these 8 traits because they showed significant increases over time according to our regression models.

The second step in our analysis involved determining which traits were most characteristic of Abrahamic world religions. To do this, we collected original data using a survey of current-day religious individuals. We recruited 8,027 people from 38 countries, including 6,418 Abrahamic monotheists (Christians, Muslims, and Jews) and 1,494 Vedic polytheists (Hindus, Buddhists,

Taoists). We recruited participants to be representative on age, income, education, and race. All participants took the survey in their native language, and we predetermined the number of participants that we recruited from each nation to ensure a balanced sample. Participants in our survey reported whether they were monotheist or polytheist, and then reported whether they ascribed a subset of 20 traits from our coding analysis to god(s) they believed in. Monotheists filled out the measure once, whereas polytheists filled it out for two separate gods that they had named on the previous page. After aggregating this survey data to the level of belief, we could combine the data from our survey of world religions with our coding data.

With these data, we could test whether the traits that were most characteristic of Abrahamic world religions were those whose prevalence had risen most over time. We found a strong association between these factors, $r(16) = 0.53$, $p = 0.02$. For example, belief in moralistic punishment—which was endorsed by 78.08% of current-day Abrahamic monotheists—rose by a factor of approximately 2.7 every 37 years (1 standard deviation) in our sample of non-industrial societies. We also found, conversely, that the traits which were most prevalent in societies distant from London were the least characteristic of Abrahamic world religions, $r(16) = -0.48$, $p = 0.043$. For example, only 29% of Abrahamic monotheists believed that God experienced physical sensations, and 35% believed that God had a human body—two of the traits most strongly associated with distance from London. We visualize these correlations in Figure 5.

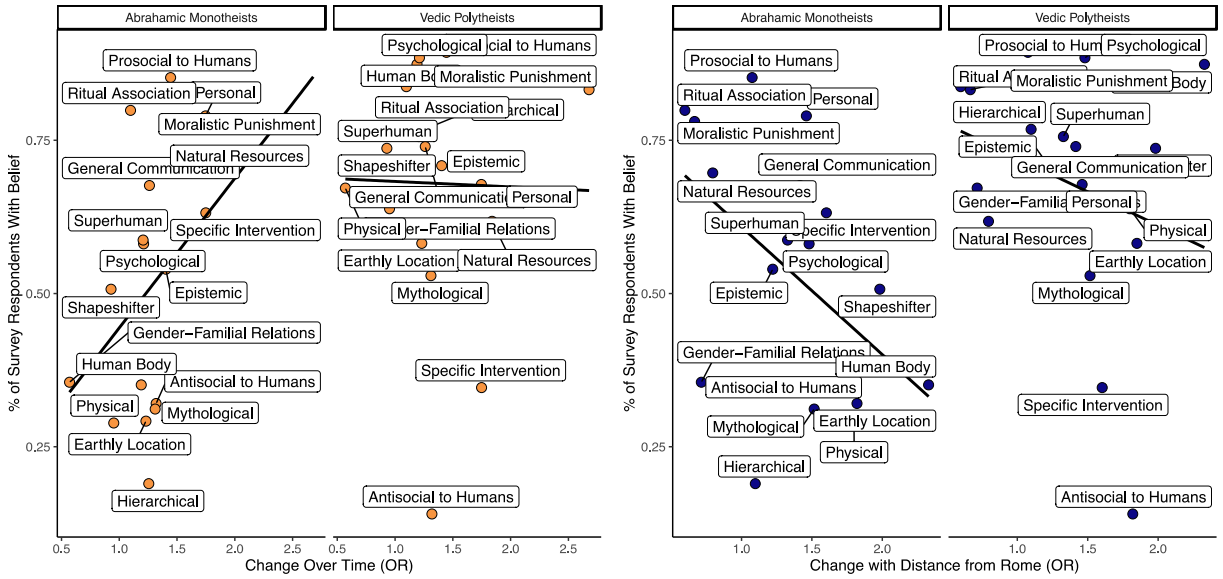

Figure 5. Historical and Geographic Hybridization with Abrahamic Beliefs. The bivariate distribution of prevalence of different traits based on their change over time odds ratios and distance from Rome odds ratios against the percent of Abrahamic monotheists (left) and Vedic polytheists (right) who endorsed these beliefs in an international survey. The best-fit line represents a linear regression.

These correlations did not replicate when we substituted the trait data from Abrahamic monotheists with Vedic polytheists. The traits which were most commonly endorsed by Vedic polytheists did not significantly rise in their prevalence over time, $r(16) = 0.003$, $p = 0.99$, nor

were they significantly linked to distance from London, $r(16) = -0.21$, $p = 0.41$. These tests suggest that evidence of hybridization was specific to Abrahamic world religions, rather than modern-day beliefs in general. In our supplemental materials, we present separate models for each world religion in our sample.

These analyses show that the traits which varied across geography and history were not random, they were the same traits that Abrahamic religions ascribe to God today, as defined by the reports of modern Christians, Jews, and Muslims. These analyses suggest that geography and history may be closely tied to religious variation because these variables reflect differential rates of hybridization with Abrahamic world religions.

Hybridization with Abrahamic world religions would also imply that religious diversity may have declined over time, as societies increasingly took on a shared set of traits. We explored this possibility in our final analysis by dividing our cross-cultural dataset into 10 equal time slices. Consistent with homogenization, we observed decline in the standard deviation of religious beliefs across societies over time, $r(8) = -0.65$, $p = 0.044$. This decline remained significant when controlling for the proportion of ethnographies documented by missionaries and bureaucrats in each slice, $b = -0.40$, $SE = 0.11$, $t(6) = -3.46$, $p = 0.01$, but not when controlling for the average source volume of each time slice, $b = -0.10$, $SE = 0.05$, $t(7) = -2.06$, $p = 0.08$. These models reflect preliminary evidence for homogenization, but we were limited by the number of timepoints that we could feasibly create while including a sufficient number of datapoints in each timepoint. Our supplemental materials discuss this analysis in more detail.

Discussion

We constructed a new database in order to analyze and compare the religious beliefs of societies from different regions and historical time periods. These analyses revealed cross-cultural similarities, and systematic variation. Our first set of analyses focused on the most prevalent religious beliefs across all societies. We found that some traits, like possessing a gender and a mind, were prevalent worldwide. These widespread beliefs may reflect cognitive biases to personify gods[7], to view gods as interventionist[27], and to selectively remember and share information about gods' special abilities[12].

Our subsequent analyses focused on cross-cultural variation in the traits ascribed to gods. We also found many traits varied depending on the record-keeper's identity (e.g., missionary vs. social scientist), geographic location, and historical period. When we held source biases constant, we found that societies in closer geographic proximity and societies documented at similar point in history had similar religious beliefs. In contrast, ecological abundance and social complexity did not explain significant variation in religious beliefs, either when we aggregated across religious variation, or examined single traits in isolation. These results were consistent with cultural evolutionary predictions that religious beliefs are constrained by geographic and historical forces, but less consistent with functional theories that certain religious beliefs co-evolve with social complexity and ecological scarcity.

Our last set of analyses suggested that geographic and historical variation in several traits might reflect differential levels of hybridization with Abrahamic world religions. In these analyses, we incorporated data from a 38-country study of individuals belonging to different world religions, in order to quantitatively determine which traits from our cross-cultural study were most endorsed by modern Abrahamic believers. We found that the traits endorsed most by Abrahamic monotheists were also those that rose the most over time (e.g., moralistic punishment, regulation of sexual behavior) and were most common in societies near major colonial powers. These results illustrate a historical transformation and homogenization of religions in worldwide non-industrial societies, which was tied to hybridization with Abrahamic religions.

What are the implications of our analyses for cultural evolutionary theories of moralizing high gods? One substantial implication is that, in the ethnographic record, contact with Abrahamic religions is a more robust predictor of moralizing religious beliefs than is social complexity. In previous analyses, contact with Abrahamic religion and social complexity were naturally confounded by sampling societies in Europe and the Middle East such as the Turks and Irish which were complex and also practiced Christianity and Islam. We separated these factors by selecting societies that practiced local religions, and controlling for the source characteristics of these societies (e.g., whether they had been documented by a missionary). After these controls, the association between social complexity and moralizing religious beliefs largely disappeared.

Our analyses do not invalidate cultural evolutionary theories of moralizing high gods, but they do suggest that these theories might apply only to specific time periods or world regions. For example, the co-evolution of moralizing religious beliefs and large-scale societies may have played out earlier in history, prior to the spread of world religions. Several gods such as *Ra* (Egyptian), *Shamash* (Akkadian), *Ahura Mazda* (Harappan), and *Yahweh* (Hebrew) have indeed coincided with large diverse empires, and have been attributed moralistic concerns and broad knowledge of human behavior. Another possibility is that societies around the world at all scales of complexity have long believed in gods with some level of concern about human behavior, including adherence to taboos and ritual participation. However, exposure to Abrahamic religion led people to describe these supernatural concerns in more explicitly moralistic language[43].

One of the strengths of our database involves the large number of traits that we collected, and the matching of quantitative codes and qualitative source material. Here we used these codes in a high-level analysis of religious universality and variation, but we encourage other studies to use our database to test new theories of religious variation. We summarize every step of our database construction and coding in our supplemental materials, and we publicly host all of our data, including the data from the 38-country cross-cultural survey.

This study offers a window into how and why there are systematic similarities religious beliefs across societies. Our results show that some god concepts appear pervasive across space and time, others show nuanced spatial autocorrelation, and others have emerged over time. These findings contextualize the current-day domination of world religions against a backdrop of more diverse and regionally variable religious beliefs, and suggest that cultural contact has been a dominant force of historical religious change.

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Supplementary Materials

1. Materials and Method

Sampling Process

We retrieved all of our ethnographic documents from the electronic Human Relations Area Files (eHRAF), which is a storehouse of digitized records from anthropologists, travelers, missionaries, and other sources. All documents have also been rated on a 1 (Poor) - 5 (Excellent) scale based on the strength of the document's primary and secondary data. They have also been manually annotated by experts based on their content. These annotations are called Outline of Cultural Materials (OCM) subjects. In total, there are 90+ major OCM categories and 700+ subcategories. We selected paragraphs that were tagged with "Spirits and Gods" (776) subcategory of the Religious Beliefs (770) category.

We retrieved documents from 109 societies in the Standard Cross-Cultural Sample (SCCS), which is a diverse sample of societies which were compiled because they cover all world regions, have a high level of ethnographic documentation, and do not share proximal common ancestors. The goal of the SCCS was for cross-cultural researchers to conduct their analyses on a sample of distinct societies without a great deal of Western influence. The SCCS is a valuable sample for our analysis because most documentation occurs before the widespread adoption of world religions. World religions are problematic for our analysis because they could lead us to significantly underestimate the extent of religious diversity. We may find that two societies, for example, both show very similar religious beliefs. But this similarity may simply result from the fact that both societies converted to Christianity before their ethnographic documentation. We intentionally did not collect data from SCCS societies like the Irish, Turks, and Russians, which adopted world religions long before their ethnographic coverage.

Despite their relative independence, there are still meaningful relationships between some SCCS societies. For example, there is evidence of trade between the Tiv and the Igbo people of West Africa, and the Kikuyu and Ganda have linguistic similarities which suggest the two societies branched from a common parent culture. These similarities make the SCCS a good sample to test hypotheses about cultural exchange without sampling groups which were merely polities within the same larger community. But they also mean that it is important to model interdependence between SCCS societies when fitting regressions.

eHRAF links ethnographic documents to SCCS societies, and also identifies a core set of documents which cover a similar “time” and “place” focus to represent the same society. This can help avoid conflating two ethnographies which may purport to cover the same society, but use field sites that are too different to be directly compared. We read all documents associated with our 109-society sample within the core time- and place-focus. Supplementary Table 1 summarizes the nature of the documents in our sample (aggregated to the society level), including the characteristics of their field dates, authors, document strength, and the volume of relevant paragraphs. The page linking eHRAF records to SCCS number can be found here: https://hraf.yale.edu/resources/reference/sccs-cases-in-ehraf/.

Supplementary Table 1.
Descriptive Statistics of Document characteristics

Characteristics	*N*	NA	*Mean*	*SD*	*Median*	*Min*	*Max*
Source Strength	109		3205.13	7421.65	5.00	3.14	43560.00
Source Volume	109		68.23	133.51	28.00	1.00	1156.00
Median Publication Year	109		1947.90	26.95	1950.00	1840.00	2012.00
Median Field-Date	97	12	1906.03	57.85	1920.00	1637.50	1972.50
Start-Date of Fieldwork	100	9	1730.07	798.50	1876.50	6000.00	1972.00
Start-Date of Fieldwork	97	12	1959.23	32.28	1963.00	1834.00	2007.00
Source Social Scientist	109		0.93	0.26	1.00	0.00	1.00

Source Historian	109		0.06	0.25	0.00	0.00	1.00
Source Business	109		0.01	0.10	0.00	0.00	1.00
Source Missionary	109		0.27	0.44	0.00	0.00	1.00
Source Explorer	109		0.06	0.25	0.00	0.00	1.00
Source Indigenous	109		0.09	0.29	0.00	0.00	1.00
Source Medical	109		0.04	0.19	0.00	0.00	1.00
Source Other	109		0.07	0.26	0.00	0.00	1.00
Source Govt	109		0.14	0.35	0.00	0.00	1.00
Source Journalist	109		0.01	0.10	0.00	0.00	1.00

Coding Process

We began our coding process by reading through each of the 3,338 ethnographic documents within the core time- and place-focus for each of the 109 societies and identifying supernatural agents in these documents. We distributed this reading across four authors on this paper (JJ, SA, EB, NK) and a team of undergraduate research assistants. Whenever a reader identified a description of a supernatural agent, they copied the text into a txt file within a Dropbox repository and associated the text with a textfil identification number (Textfile ID) and a God identification number (God ID). They also recorded the full citation of the source, the source type, the document rating, the beginning of field coverage and the end of field coverage, and the publication date. All of these variables are provided on the eHRAF website (see here for an example: https://ehrafworldcultures.yale.edu/cultures/fh26/documents/003). Therefore, none of these ratings involved discretionary decisions on the part of the RA. The RA also recorded the number of paragraphs associated with each description.

During this reading process, we defined supernatural agents as follows: “This project adopts a broad definition of ‘gods and spirits.’ Our definition ranges from spirits that inhabit very specific local ecologies to high gods that have a broad influence on human life. This definition **does not** include ancestor spirits or ghosts of real people who died.” We did not include ancestor spirits in our coding process because we felt that their features could be biased by their personalities and attributes as living humans.

This reading process yielded descriptions of 2,377 supernatural agents. However, many of these descriptions were short and contained only a single paragraph. Before starting our coding process, we therefore identified the 850 supernatural agents which had the most ethnographic documentation (by word count). This filtering process made coding more feasible, since our coding process was entirely manual. It also helped minimize the sparseness of our coding dataframe, since supernatural agents with minimal information would be coded NA on nearly all features. Table 1 in our main text provides three subsets of descriptions. Supplementary Table 2 provides additional description subsets from 20 additional societies in our sample, which demonstrates the highly diverse supernatural agents in our sample.

Supplemental Table 2.
Sample Sescriptions of Supernatural Agents from 109 Societies

Society	Description
Abipon	“According to the account of the Jesuit Dobrizhoffer the Abipón were unacquainted with the concept of God or even the very name of God, yet affectionately related to a spirit called **Aharaigichi or Queevèt** to whom they gave the title "grandfather". This "grandfather" was closely associated in the minds of the Abipón with the cluster of stars known as the Pleiades.”
Ainu	This fetish is of the male gender and is the most important one the men make. He is sometimes called the **Divine Husband** of the Fire upon the Hearth. On entering an Ainu hut, one hardly realizes that he is believed to be in the presence of two such mighty gods. But there is something very uncanny about this fetish and the many skulls of animals one may sometimes see about it. I have often slept with my head in that sacred east corner, and the smell from the skulls kept there has sometimes been very strong and not at all fresh and nice. This fetish and his wife—the Fire—together are supposed to look after the welfare of the family and rule over them. These things are surely national totemistic signs, inasmuch as they connect the whole race in the bonds of one living clan or family. The people are the children of one ancestral father and mother. They are both—fire and the fetish—worshipped, which worship was no doubt in the beginning an In Memoriam service, and had, without doubt, for its moving principle reverence for their forefathers. It is pertinent to remark here that just as Ekashi means “old man,” so Huchior Fuji means “old woman,” and in some things they remind one of the Lares and Penates of old Rome, for with them the lar was conceived of not only as the house spirit but as the spirit of a deceased ancestor, and so we probably have hereancestor-worship amalgamated with the worship of a tutelary or guardian spirit. And in the fetish itself we have in the willow shavings are ference to the Ainu racial “birth-tree,” which is the willow itself.
Aleut	"Like their brothers of Unalaska, the Athin Aleuts had the shamanist religion, that is, while recognizing a creator of the universe, they believed in spirit rulers of the world. They called the Higher Being **Kouiudam agougou** and also **achidam agougou**. The first signifies “Creator of the Heavens” while the latter means “Creator of the lower part” or “of the bottom”
Alorese	There may be a rare individual who is concerned with such matters, but, if so, I failed to discover him, and he would in any case be aberrant in that respect. Again, this reinforces the argument that the Atimelangers are not concerned with speculative constructs or the nonmanifest. Even the village of the dead seems to be no more than a reflection of earthly life. It is called Sahiek, or Sehiek, and is presided over by a figure named **Karfehawa** (literally, Kar-pig-jaw). The location of Sahiek and the identity of Karfehawa were completely nebulous to most informants. Rilpada came nearest to giving a coherent account.
Andamanese	esides these three chief demons, there is a company of evil spirits who are called **chôl-**, and who are much dreaded. They are believed to be descendants of mai[unknown]a chôl-,6Vide post “Mythology,” paragraph 33.who lived in antediluvian times. They generally punish those whooffend them by baking or roasting pig's flesh, the smell of which is particularly obnoxious to them, as it is also to P[unknown]u[unknown]luga-, who, therefore, often assists them in discovering the delinquent; the same risk does

	notattendboilingpork,7Vide post “Food,” paragraph 27. which the olfactory nerves of the fastidious ch[unknown]ol- are not keen enough to detect.
Aranda	**“Eruncha** or **Eruncha rulla** (ground) is the name given to these mischievous spirits, who are supposed to dwell in the ground. These Eruncha of the Alchera are always the source of a certain amount of mirth, whether it be during the examination of their Churinga or on the occasion of the performance of ceremonies concerned with them… There are times when the Eruncha will take a man down into the ground and transform him into a medicine man. On the whole the Eruncha may be regarded as a mischievous spirit who will in some way harm those whom he comes across in places where they should not be--that is, where they know they are likely to meet him if they venture alone after dark—rather than as a distinctly malevolent spirit-whose object is at all times to injure them. Of any single, permanent malevolent spirit the Arunta do not appear to have formed a conception; in fact, the place of such an individual is largely supplied by their beliefs with regard to the Kurdaitcha and various forms of magic.”
Ashanti	Very long ago one man and one woman came down from the sky and one man and one woman came up from the earth. From the **Sky God (Onyame)**, also came a python (onini), and it made its home in the river now called Bosommuru.
Aweikoma	Of all the supernatural beings, **Yóin** is the most terrific. His head, which is very large at the top and crowned with a mop of hair which some say is red and others think is woolly like a Negro's, has a groove down the middle. That is why little The gnmbégn, who had an almost imperceptible depression in the middle of his head, was jokingly called Yóin. Yóin's eyes are white and are provided with red lids. His head is always shaking. He has great jaws, and his neck is thick and long. His body is broad and thick, and his belly flashes like a giant firefly as he flies through the sky at night. His buttocks are very narrow and widely separated, and his penis is long and his testicles large. When he walk son the ground he is like a man, but in the air his arms are pressed tohis sides and his legs are tight together. He roams about, devouring men, women, and children, and his hands and mouth are red with the blood he has rubbed on them. He carries a little knife with him, and when he seizes a victim, he thrusts his bloody hand up through the anus, cuts out the heart and intestines, and devours them. “Yóin kills people because he is a different thing and never calls men ‘my people’.”
Aymara	The identity of the owner of the fish in Lake Titicaca is even more confused, although all informants believed that the fish supply was controlled by some supernatural being. On one occasion, while discussing the **katari**, or water monster that is thought to inhabit Lake Titicaca, Informant 39 stated: He is the owner and jefe(chief) of all the fish in the Lake We call him “grandfather” because he is very old.
Azande	Congenital disease, madness and other inexplicable conditions are attributed to **Mbori**, the Supreme Being. He is believed to have created the earth, air, fire, water, and animals, and there is a creation myth which is found in many different versions but is not universally known.

Balinese	It will be seen by referring to the above table that the year 900 is the approximate date given to the so called Lara Djonggrang temple group at Prambanan and that it was in the century immediately following this that the first close contact between Java and Bali was established. Now it is no accident that a figure of **Durga** from Prambanan, now in the Museum of Fine Arts, Boston, was used as a frontispiece in Keith's volume on Indian mythology in the series, The Mythology of All Races(see Pl. XI,b). This outstandingly beautiful piece, chosen to head the volume and to illustrate the attributes of the Hinduistic deity, is entitled as follows: Durga. The wife of Siva, in her dread aspect, slays the Asura Mahisa. Standing in an attitude of triumph on the demon, who, as his name implies, is in the shape of a buffalo, she drags his soul (symbolized in human form) from him. From a Javanese lava sculpture, probably from Prambanan, in the Museum of Fine Arts, Boston.55Keith, 1917, frontispiece
Bambara	The Bambara has not deified the forces of nature. Although in some instances he shows them respect and fears them, he leaves them without priest, /sacrificial/ victim, or altar: he is not a “nature worshipper” in the strict sense of the word; his true religion is animism. His spiritualism knows no bounds and he sees **genii** just about everywhere. The bush is full of these spirits; they lodge in the trees or lounge astride branches; they run around the outskirts of villages; splash in ponds and wells; they pull themselves onto high rocks,[Page20]termite nests, and mounds, and like very much to crouch in the corners formed by paths that fork or intersect. Inside the villages there are also those that roll in the ashes of the hearth and stir the fire, while others watch over the household utensils — pots, gourds, plates, and all the kitchen implements. Theb'lon(vestibules or entrance huts)through which a village or a dwelling is entered are nests of genii. Individual homes are definitely not private, either; all the horns, rags, pieces of wood, and gourds, dusty and black with smoke, that are piously hung over the doors, on the beams that support the flat terrace roofs, on the walls, and pretty much everywhere, are dwellings of genii, or votive offerings in honor of those who fly in the air or run through the outbuildings.
Bellacoola	The Bella Coola believe that there are five worlds, one above another. The middle one is our own world, the earth. Above it are spanned two heavens, while below it there are two underworlds. In the upper heaven resides the **supreme deity**, a woman who interferes comparatively little with the fates of mankind. In the centre of the lower heaven, that is in the zenith, stands the house of the gods, in which reside the Sun and all the other deities. Our own earth is an island swimming in the ocean. The underworld is inhabited by the ghosts, who are at liberty to return to heaven, whence they may be sent down again to our earth. The ghosts[Page 28]who die a second death sink to the lowest world, from which there is no return.
Bemba	The mother-earth spirit Lesa is associated with the mastery of life and death. “The earth” **Mushili** is traditionally considered a fertile wife, which the chief plows and sows. She gives birth to crops as a mother brings forth children. Mushili, the earth, is also the place of burial. In her corpses are “arranged in a fetal position” Kuonga and laid “in the womb” Munda, a term used figuratively of sleep and the sleep of death in the tomb (White Fathers 1954, 528)
Bribri	Of Gods, deities, spirits, or devils, there are as follows; the “great spirit” or principal superhuman being is called **Si-bu'** by the Bri-bris and by the

	Cabecars; by the Tiribis he is called **Zi-bo'**, by the Terrabas **Zŭ-bo'** and by the Borucas, **Si'-bŭh**. Agood spirit, from whom nothing is to be feared, he receives a sort of passive respect, but no adoration or worship. He is rather looked on as the chief of the good country, of the future state, but as not troubling himself much about mundane matters. It will be seen, therefore, that in their theology, the entire family of tribes is essentially monotheistic, although they have taken the first insensible step towards a plurality of gods, in the manner so admirably indicated by Max Müller, in his “Chips from a German Workshop.” They believe in but one God, and assert his unity with an emphasis worthy of Moslems [Page 506] and yet their priests give him twenty names, in their songs. These names, so far as I could ascertain, all refer to his qualities. One Bri-bri, whom I had with me as a servant for over half a year, and from whom I obtained much valuable information, particularly in regard to the language, said to me, “Why do you foreigners ask us how many Gods there are? There is only one, and that is Si-bu'.”
Cayapa	One of the most important of the spirits recognized by the Cayapa is **Thunder, kū'īdya**. According to some informants the Thunders are two, a male and a female; they somewhat exceed in size the average spirits, and have light-blue bodies covered with coarse hair somewhat like hog-bristles. The thunder spirits wear no clothing [Page 361] and do not paint their bodies; they have large blue wings with which they fly from place to place, and the flapping of which causes the detonation we call thunder. They have no special abode, but frequent certain places more than others: especially do they frequent a particular high hill far up the Rio Cayapas.
Chiricahua	The Chiricahua had a vague, personified belief in a supernatural being called “**Life Giver**”, who was sometimes pictured as a sky god. Occasionally prayers were directly addressed to him, but he was otherwise not involved in ceremonies.
Chukchee	Chukchi beliefs, like those of other Siberian peoples, were character-istically animistic. The entire universe, they held, was inhabited by spirits (**kelet**). They believed that the spirits were invisible, extremely mobile and capable of changing their size and appearance. The life of the spirits was similar to human life. The Chukchi believed that the spirits owned reindeer, lived in encampments, married, quarreled among themselves, hunted, etc. The evil spirits hunted human souls, which they cut up and devoured. A man's illness and death were attributed to the stealing of his soul by spirits. Forprotection against illness and misfortunes and to guarantee success in hunting and fishing, the Chukchi resorted to various amulets, incantations and rituals. Amulets were considered to be invested with special powers, protecting their owners against evil spirits. They were fastened to clothing, hung on the dwelling and hunting and fishing implements, and painted on the dwelling and hunting and fishing implements, and painted on bay dars and household articles.
Comanche	The Comanchee system of religion is about as perfect and luminous as that of their jurisprudence. They believe in a **Supreme Being**, and in a future state of existence, but have adopted no mode or manner of worship. Indeed they consider the Supreme Being, to be so far removed from them as not to wish to interfere directly, in their temporal concerns, and as equally unwilling to be interfered with. They therefore leave him to enjoy his repose without molestation, and expect the same indulgence for themselves. They have no

	idea of a special superintending Providence, or that the Great Spirit takes any particular cognizance of the actions of men. And they consequently defer all their devotional concerns, if indeed they entertain any, to a dark futurity, [Page 126] which has never been shadowed to their minds, except by the faint and flickering light of nature. The beamy of divine revelation have never penetrated the dismal mists that constitute their moral atmosphere. They nevertheless believe in a final accountability, in which they plainly, but perhaps unconsciously, indicate a sentiment of the omniscience and ubiquity of the Great Judge of Heaven and Earth. By an obvious and natural impulse of unenlightened reason, which is most apt to prefigure the joys and sorrows of a future state, by the experience of the past and present, they suppose that when a good man dies, he goes to a fertile and salubrious country where the Buffaloes, which furnish their principal and favorite aliment, and every desirable species of game are abundant, and where they will enjoy the charms of the chase, with a more exquisite zest, without interruption and without satiety. The reverse of this destiny is assigned to the wicked, who they imagine will be driven away, to linger out a miserable existence, among rugged and sterile hills that are infested with all manner of noxious animals, and where the Buffaloes, Deer and Bears are scarce, and meagre and unsavory to the palate. Goodness, however, in their system of ethics, is a qualified term that has reference to acts of public benefit and renown, such as taking of scalps, expert and successful hunting, and dexterity in stealing from their enemies, rather than to the gentle rvirtues, that adorn and humanize and purify the heart.
Copper Eskimo	One central theme of Copper Inuit beliefs relates to the separation of sea and land animals. The **Sea Goddess (Arnapkapfaluk)** was believed to be in control of sea creatures and certain precautions had to be observed to keep them from contamination by land animals. Most important was the custom of sewing the caribou skin garments only in the period before the seal hunting season began.
Creek	The ghosts of those slain in war hovered about the roofs of their dwellings until they were avenged, when they traveled westward, passing under the edge of the sky vault and, if they were virtuous in this life, up the “spirits' road” on the top of the vault, marked by the Milky Way, to the world of the spirits and of **hisa·kitamisí**· ‘the Preserver of Breath’ or ohfánka ‘the One Above’ (ipohfánka ‘the One Above Us’).
Cubeo (Tucano)	Language also distinguishes humans from nonhumans, although in some instances this is not signaled simply by the presence or absence of a language. Each species of animal is seen as having its own language, as do the ubiquitous **wahtía**, forest spirits.
Cuna (Tule)	What Cuna religious specialists see as a historical sequence in their tradition is associated with two culture heroes. Both of these have sun attributes, but there is considerable difference in the emphasis in the legendary materials associated with each. The first of these culture heroes was **Ipelele (Olowaipipilele)**.
Fon	**Gu** is the vodun of iron and war. Gu can be [Page 167] represented by any weapon, whether a European firearm or the indigenous spears and knives; by a kind of ceremonial knife called Gubassa; or by a smith's tools.
Ganda	Baganda distinguish between mizimu —the ghosts of dead persons—and **balubaale** —spirits which, like the mizimu, are anthropomorphic and are

	believed to have once lived on earth as persons, but which now form a sort of pantheon of gods with particular spheres of interest.
Garo	**Rabuga, Ranaga, Tatara or Dakgipa**, are used as names for a god who is believed to have made the world and man. Dakgipa, in fact, means quite literally “the one who makes.” These names are called out in the course of sacrifices to ward off disease, but the sacrifices are directed primarily toward the lesser biting spirits, and not toward Rabuga.
Gilyak	thus the **Master of the Waters†** sends human beings fish and sea animals so that man can have food and clothing. The Master of the Mountain/Forest may not be given the flesh of animals he has sent to the Nivkh, but rather be offered items foreign to the forest.
Goajiro	Goajiro religion is imperfectly known. **Mareigua (Maleiwa)** seems to have been the Creator and Culture Hero. He caused the first Goajiro to emerge from the ground and taught the tribe how to produce fire with a drill. He saved them during the flood by raising the Cerro Pororo where they had taken refuge and by driving the jaguars away. As a Supreme Being he shows some moral preoccupation, in the past having punished those who lived in incest. He sends rain and all the good things which the Goajiro expect from nature (Hernández de Alba, 1936, p. 44).
Gond	Even though the final offering of a menhir at the kotokal or uraskal be the last thing that an individual hanal can demand in his name or be aggrieved at not receiving, yet even then he is absorbed into the general body of the Departed, who must still be propitiated by the various domestic observances in the lonuand the wijja-lon rooms. What is the extent to which it is believed that the dead have future life? Russell and Hiralal have again (III, p. 96) to be criticized for the generalization that the Bastar Gonds have ‘a conception of retribution after death for the souls of evil-doers’, for which the sole foundation seems to be one of their usual picturesque but unsound statements, that the souls adjudged sinful after death are ‘hurled down into a dense forest without any salphi trees’, so that the Bastar Gond ‘idea of a place of punishment for departed sinners is, therefore, one in which no alcoholic liquor is to be had’. This could refer only to Hill or Bison-horn Marias, who almost alone in Bastar use salphi liquor. The source of the information is not stated; but much, I think, emanated from a few Jagdalpur Methodist converts. Nowhere in Bastar is there, so far as I could ascertain, any such idea of so tangible a hell. Only around Orcha and a few neighbouring Chhota Dongar pargana Hill Maria villages did I find any idea of a vague Supreme Being, **Ispural**, [Page 225] who would perhaps punish evil-doers somewhere after death; but no one could say who or where Ispural was, or where the sinful would be judged and punished. It is possibly a faint echo of missionary teaching passed on by bazaar gossip. All Marias agree that the dead are somewhere underground; men, animals, trees, and perhaps rivers and streams have in them jiwa, a principal of life, and some say that when a man dies his jiwa goes to Pogho Bhum, the sky, while that part which is cremated or buried goes below the earth and is his hanal. There is a belief that the menhirs erected at the kotokal or uraskal increase in size in the hanal commemorated by it is happy
Gros Ventre	The religious beliefs of the Gros Ventre centered on a supernatural being called **The One Above**. This being was the ultimate source of life, and power possessed by other supernatural being and by humans themselves. Endowed

	with these powers, humans could cause good or bad things to happen through thought alone. This concept formed the basis of Gros Ventre religion. The powers delegated by The One Above varied in kind and degree as it was given to various natural and supernatural phenomena (e. g., thunder, sun, animals, rocks, mountains, whirlwinds, and ghosts). This power could be tapped by humans by communicating with The One Above generally through the vision quest by means of fasting, prayer, or offerings. Prayers were conveyed to The One Above through words and thought, and sometime by using a pipe, smoke, steam, or singing. Once acquired, this power could be used by humans for curing, assuring success in particular ventures, to foretell events, and to harm (by means of sorcery).
Hausa	**Gajimari**, a male `ísk[unknown]a, is the oldest son of `Inna. He is the Hausa representative of a common West African conception, the rainbow serpent. 10 He may be observed at the bottom of wells or in ant heaps, where he takes the form of a snake. He causes the rain to stop by ascending into the heavens to drink up the rain water: hence his name Mašaruwa, “drinker of water.” At such times he may be seen rising as a red light. When the rain is over, he stretches himself out in the sky as the rainbow of which he is the red [Page 41] part while his consort Ra, the thunder deity, is the blue. 11 Gajimari is identified with the búd[unknown]a, a type of snake believed to have two heads, which many Maguzawa sibs claim as their “totem.” To see a búd[unknown]a snake gliding past the house is a sign that one of the women inside will have a child or that one of the men will acquire a wife.
Havasupai	The Havasupai had few major deities. One of these was **Pakiyóka** (he who draws people after, or he who draws souls into the sky), and Pakiyóva (he who makes people live again). Pakiyóva is possibly a version of the Christian god who makes people live again after death. Two other characters playing important roles in Havasupai mythology are a boy and his grandmother. The boy lived in the east and every year he would travel west to visit his grandmother bringing with him rain, wind, and seeds to plant.
Huichol	Roth (1915:290-91, 330-31) reported that the gourd rattles (maráka) of the Arawak shamans in the Guianas were usually filled with white quartz crystals which were believed to be of supernatural origin. For curing and other ceremonies the piai (shaman) shook his rattle to invoke the spirits which assisted him in fighting the spirits of evil, as indeed they still do. According to one tradition cited by Roth (p. 246), it was a female water spirit, called **oriyu**, who in mystical times gave the shaman this wondrous implement, along with tobacco, another essential ingredient in shamanic ritual. According to the story, all the men, women and children on one of the islands were struck down with a sickness sent by a spirit of evil. A mythical hero asked the oriyu spirit for some charm with which to overcome the disease spirit who had made his people ill. He was given the branch of a tree which the oriyu told him to plant; its first fruit was to be brought to her. This fruit turned out to be the calabash, from which the shamanic rattle is made. Having emptied it of its contents through special slits she cut into it, the oriyu gave the hero a feathered handle for the maráka and dived into the sea to bring back the shining white stones with which to fill it. Then she showed him how to invoke the helpful spirits by means of rattling the magical stones and also taught him the use of tobacco, which previously had been unknown to man.

Iban	**Salampandai** is the maker of men. He hammers them into shape out of clay, and forms the bodies of children to be born into the world. There is an insect which makes at night the curious noise-- kink-a-clink, kink-a-clink. When the Dyaks hear this, they say it is Salam-pandai at his work. The story goes that he was commanded by the gods to make a man, and he made one of stone; but it could not speak, and so was rejected. He set to work again and made one of iron; but neither could that speak, so the gods refused it. The third time he made one of clay, * and this had the power of speech. The gods, Petara, were pleased, and said: “The man you have made will do well. Let him be the ancestor of the human race, and you must make others like him.” And so Salampandai began forming human beings, and is forming them now at his anvil, using his tools in unseen regions. There he hammers them out, and when each child is formed it is brought to the Petara, who asks: “What would you like to handle and use?” If it answer, “A sword,” the gods pronounce it a male; it is pronounced a female. Thus they are born as boys or girls, according to their own wishes.
Ifugao	Like all other evils, fire is caused by the supernatural beings and especially by the **Anini’to ad Anga’chal**. This Deity of the Skyworld, being the Thunderer of the Skyworld, burns the houses and huts or granaries by thunder and lightning and by sending his agents the “Fire Supernatural Beings”. Even if a house was set afire by a “natural” cause or agency (imprudence, negligence, arson), the Thunderer of the Skyworld is nevertheless believed to have been the ultimate cause of it. Moreover, fire is a sign of the anger of the deities and a warning that other evils will follow if nothing is done to satisfy the deities.
Igbo	There is also a linguistic bond between the members of the group in that they speak the same dialect. The whole of Agbaja is, moreover, a religious unit in the sense that it possesses a guardian deity served by religious slaves known as osu , with its shrine in the village of the senior man of Agbaja. This deity has its male aspect **Ezɛala Ɔgθugo**, and its female aspect Lɔlɔ Ajala, and has its annual rites. There is also a deity belonging to all Agbaja called Ɔpara Ogugu, with its shrine in the central market place. The whole of Agbaja performs rites in its honour annually in the seventh month.
Inca	Among the many things worshiped by the Inkas, water played a role second only to that of the Sun and the Creator, Wirakocha. The thunder god, **Illapa (Tunupa in Aymara)**, was believed to influence meteorological phenomena such as rain, lightning, thunder, and snow. This god was venerated in the Temple of the Sun in Cuzco, and is said to have had a separate house of worship in the Totocachi district of Cuzco (Cobo 1964: 160–161, Bk. 13, chap. 7), and his statue was carried to war by Inka kings.
Ingalik	Russian Orthodox priests arrived among the Ingalik in 1845 and baptized 437 Indians in two years, though understanding of Christianity remained superficial. By 1887-1888, Episcopal and Roman Catholic missionaries had appeared on the lower Yukon, mission schools had been established, and the Orthodox faith largely replaced. By 1990s, the Ingalik were nominal Christians, with the last mission school closing in 1957. The Ingalik world was created by <glossterm role="native">Denato</glossterm>, an otiose father figure. Many spirits and beings inhabited the Ingalik world, the most dangerous being **Giyeg**, the spirit of death. Helpers of the Giyeg included the Nakani, a malevolent forest spirit common among Northern Athapaskans. Particularly important were the various animal and salmon people.

Javanese	The peasant wong abangan also believes in the important role of the rice goddess **Dewi Sri**, in fortility rites and ceremonies in connection with agricultural production (Dewi Sri is the Javanese version of Shri, Visnu's wife in Hindu mythology).
Jivaro	**Nuŋuí**, it is believed, is responsible for pushing the crops up through the ground, i.e., for their growth. Without her help, a woman cannot expect to be successful as a gardener and, therefore, engages in various practices to attract Nuŋuí to the garden, and to keep her there. Such practices are based upon a knowledge of Nuŋuí's two main demands from the Jívaro: to be given a place to dance and to be provided with “babies.”
Kaffa	The Kaffa sacrificed to Yero, the **supreme sky-God** whom, following contact with Christianity in the 16th century, they also equated with the Christian God. They also recognize a category of spirits, eqqo, believed to live in trees, bushes, and rivers. Other important beings in Kaffa religion include the fertility goddess that appears to be similar both the Oromo Atete and the Virgin Mary.
Kapauku	The Kapauku believe that the universe was created by **Ugatame**, who has predetermined all that occurs or has occurred within it. Ugatame is not, strictly speaking, anthropomorphized, although a creation myth in which disease and mortality were first brought to the AMU Valley depicts Ugatame with the combined characters of a young woman and a tall young man. Ugatame dwells beyond the sky, and is manifested in, but not identical to, the sun and the moon. It is believed that, along with the physical universe, Ugatame created a number of spirits. These spirits, essentially incorporeal, frequently appear to Kapauku in the form of shadows among the trees, which can be heard to make scratching or whistling sounds. Less commonly, they will appear in dreams or visions, at times assuming human form. They can be enlisted by the dreamer or visionary as guardians and helpers, for good or for ill. The souls of the dead can similarly be persuaded to help their surviving kin.
Kaska	Of the **nature bosses**, our data permit discussion only of the executive agency operating behind the animal world. Although there seems to be no clear idea as whether the real animals encountered in the forest are individually capable of knowing the intentions of men, or whether it is a superior intelligence behind the fauna which has this ability and operates through the creatures, the latter readin seems best to fit the facts. This, however, is only one of several possible interpretations. A better deduction (for which there is no clear evidence) might b regard the spiritual components of the real animals as mystically identical with th total supernatural realm in whose intelligence man and the various species participate. We will assume that it is the supernatural animal realm which posse final intelligence and power and which, somehow manifesting itself through the f of real animals, bestows supernatural power on men. This intelligence is also ca of frustrating the efforts of a trapper, who desires fur “too much,” by keeping the animals away from that person's traps.
Kikuyu	At the heart of the Gikuyu spiritual world was their belief in **Ngai**, the one god, w also known as Mwene-Nyaga, the Creator of All (symbolized in the purity of Mt. Kenya) to Gikuyu living in its shadow. Spiritual places such as forests, trees, hil mountains, especially Kirinyaga, served as places to pay homage to Ngai. A ve magumo (wild fig tree) was considered a sacred place, its magnificent branches twisting skyward, its solid trunk firmly planted in the earth. Every Gikuyu village magumo tree where elders made sacrifices to Ngai, offering a fat, white ram, wh neck was ritually slit and its blood poured in a sacred spot while the animal’s fat

	smeared on the trunk. It was here, the elders prayed for rain, for the crops' ferti and for healing if some calamity had struck. Gikuyu continue to use large, sacre trees as gathering places for religious meetings and special events.
Klamath	This people belongs to the autochthonic nations of America, called so because have lost all remembrances of earlier habitats or of migrations. [Page xlii] As a r of their seclusion, all their geogonic and creation myths are acting around the headwaters of Klamath River and in Lost River Valley, and the first man is said have been created by their national deity, **K'mukámtchiksh**, at the base of the Cascade Range, upon the prairie drained by Wood River. I have obtained no m disclosing any knowledge of the ocean, which is scarcely one hundred and fifty distant in an air line from their seats. They have no flood or inundation myths tha not imported from abroad; and what is of special importance here, their terms fo ([unknown]a'dak, sh[unknown]o'lt) are not their own, but are derived from foreig languages.
Konso	**Waga**, the Sky God, is believed by many to have created humans in the beginning, and each person at conception. He once lived on earth among the Konso, but he was offended by a woman and so went to live far away. He is still concerned with human affairs, and he punishes sinners with sickness, sterility, and death and may even withhold rain from towns in which there is too much quarreling. The elders are God's deputies on earth. There is no idea of private prayer to God; his benefits are requested by the performance of ritual. Opposed to God are many evil spirits, who live in the lowlands and under certain trees, and also in the vicinity of the towns where they are especially active at night. They can cause insanity and sickness, and some people are said to be possessed by them; in consequence, they, too, are feared. Another kind of spirit, not considered evil but potentially dangerous if annoyed, lives in wells. The Konso also believe that the soul survives death as a ghost and retains some contact with the living, mainly through the dreams of the lineage head. Ghosts may be heard talking or flapping about at night, and in a few cases they may cause sickness, but there is no cult of the ancestors. To dream of the dead is dangerous for ordinary people and may be an omen of their own death. Beliefs about the evil eye are very important; someone with the evil eye can cause food to stick in the throat, beer to spoil, crops to dry up, and children and calves to refuse to suckle. The motive for use of the evil eye is said to be spite and envy, which can be detected by a habit of praising the fields, stock, or children of others. Many magical substances are used both for hostile and protective purposes. Women are closely associated with the earth, which is a cosmological element, distinct from but complementary to God, who is associated with men. God is not regarded as the creator of the earth, but he nourishes it with rain. Earth is the source of food, the preparation of which is exclusively reserved for women, whose symbol on graves and elsewhere is a clay pot. The nine Konso clans are divided into three groups, associated with God, the Earth, and the Wild. God is the source of the social and moral order, whereas the Earth and women supply the physical necessities of life. The Wild is associated with the dangerous forces of spirituality, not only with those of a hostile nature—such as evil spirits and madmen—but also with priests. It is considered dangerous for priests to live in the towns, although most of them now do so, and the most sacred places are always outside the towns and overgrown with wild vegetation that must not be cut.

Kung Bushmen	All the phenomena of life and death which he cannot readily understand are the work of a single power, **Gu/e** — God. But beyond this, all natural behaviour, even his own, comes about because God, Gu/e, made plants and animals to act as they do. Only Gu/e knows why this or that takes place. Gocholu told us that Gu/e terminates the human life cycle by sending a lion who steps over a score of sleeping people before picking his victim.
Kutenai	The Kootenays believe in the existence of spirits in everything animate and inanimate; even little stones, bits of rag, shavings of wood, have their **nipi′k'a or tcāk'ä′ps**, as these spirits are called. These spirits can go anywhere, through glass, wood, or any substance, as through air. The touch of the nipi′k'a causes death and disease. At the death of Indians their spirits may enter into fishes, bears, trees, &c.; in fact, into anything animate or inanimate. While a man is alive his nipi′k'a may exist in the form of a tomtit, a jay, a bear, a flower, &c. Thenipi′k'as of the dead can return and visit their friends; and while the writer was at Barnard, B.C., one Indian declared that the night before the spirits of his children had come to see him. The spirits appear very frequently in the folk-tales.
Kwoma	Kwoma apply the term **'spirit' (sikilowas)** to three categories of entities, categories that are empirically but not terminologically distinguished. The first consists of various supernormal or magical beings that form the subjects of myths (yap). Mes yap or the myth [Page 89] of the mes (Homalium foetidum) species of tree, for instance, is concerned with the adventures of a forest tree belonging to the above-named species. Although there is nothing unusual or atypical about the mes species of tree, this particular tree is unusual, and classified as a 'spirit' (sikilowas), for the fact that it possesses magical properties: principally the ability to transform itself into other entities at will. Thus at one stage in the narrative it transforms itself into a poisonous black millepede (magrikow), in which form it crawls around and torments a menstruating woman sitting outside her house. On another occasion it transforms itself into a man and visits neighbouring communities where it converses freely with the inhabitants. In addition to its ability to metamorphose at will, the tree possesses extraordinary phallic potency, such that any woman who steps over one of its thick woody roots is automatically made pregnant. Its sexual potency is so great that it can even impregnate tiny sexually immature girls
Lolo	The Lolo have only one god, who is called in Chinese **t'ien p'usah**. This means the sky god, or the god of heaven. He is invisible, and has no image. He is depended upon for good crops, victory in war, and for all other blessings. Many of the men wear their hair done up into a single knot above their forehead to symbolize this god. A Christian Lolo told the writer that his fellow tribesmen find it easy to identify their god with the Christian God. He believed that the two gods are the same, but that the Christian conception and revelation are superior.
Lozi	The funeral rites for a king is far more elaborate. Before his death, each king selects or builds a village in which he will be buried, peopling it with councilors, priests, and other personnel. At his death the king is buried in a huge grave at this site. This is then surrounded by a fence of pointed stakes and the markings of royalty erected around the location. Trees, obtained from the bush, are planted at these royal graves so that from a distance these sites with their clumps of trees stand out distinctly on the flat plain. The Lozi believe

	that these royal graves are infused with great supernatural power, affecting the lives of not only the royal heirs, but all of Loziland as well (2: Gluckman, p. 31). Each grave has its resident priest who makes national offerings at the site. The royal ancestors are believed to act as intermediaries between **NYAMBE (the supreme god)** and man.
Manus	MANUS religion draws upon much of the formal supernatural dogma and technique that are widely distributed in the world, although the design in which these are used is distinctive. The Manus have the familiar concept of the **ghosts of the dead**, of a certain kind of soul or vital essence in the living, the concept of ghostly control of this soul or vital essence in the living, the concept that in trance or in swoon this soul or essence approaches the ghosts. They have also a little magic with spells, familiars and herbs. A less widely distributed concept, also important in Manus, is the idea of oracular inspiration in the form of diviners and mediums who have “controls,” properly constituted persons who can interpret ghostly intention to their fellows, without trance or swoon, however, or any abnormal manifestation, without “materialisations” but soberly and in an easy manner quite natural in appearance.
Maori	The seventy children of the primal parents were all of the male sex, and are probably all personifications, many assuredly are so. Uru-te-ngangana is connected with light; he is said to have had two wives, **Moe-ahuru and Hine-turama**, the first of whom gave birth to the sun and moon, while the latter produced the stars. One version makes Uru the son of Whiro, who personifies darkness and evil, so that here light emanated from darkness. Roiho and Roake, two other children of the primal parents, are attendants or Io in the uppermost heaven. Tawhirimatea personifies wind, and Tangaroa all fish. The latter is also known as Tangaroa-whakamau-tai, the Tide Controller, and he is assisted in that duty by Rona the Tide Controller, the woman in the moon of Maori myth. Kiwa controls the ocean, which is known as the Great Ocean of Kiwa, though it is personified in Hine-moana, the Ocean Maid. Te Iho-rangi is the personified form of rain, and Tu-matauenga represents war. Te Ikaroa personifies the Milky Way; Rakamaomao the wind, while Rongo is the patron of agriculture and peaceful arts, including peace binding in time of war. There is a considerable amount of evidence to show that Rongo is a personification of the moon. Tawhiri-rangi is connected with Tawhiri-matea of the winds; Punaweko was the origin of land birds; Hurumanu of sea birds, and Te Kuwatawata was appointed guardian of the entrance to the underworld
Mapuche	While the kupuka may either give or withhold what man asks of them, and are therefore considered somewhat capricious, other of the minor deities are viewed differently. I refer especially to **huillifucha/kushe** (god and goddess of the south wind), lafkenfucha/kushe (god and goddess of the sea), tralkanfucha/kushe or, sometimes, pillanfucha/kushe (god and goddess of thunder), antufucha/kushe (god and goddess of the sun), and kuyenfucha/kushe (god and goddess of the moon). It| is mainly with restraining or, rather, channeling the forces of these gods that the people are concerned, and it is to henechen that they pray in order that their powers be impeded or well directed. As is the case with henechen and his wife, these minor gods are conceived of as old people and are thought to be invisible.
Marquesans	Light is shed upon the subject of these bird symbols (manu ku'a) and the priestly emblems (hukihuki, opini), by certain notes of Père Pierre (7), the gist of which i follows: There were three orders of gods—gods of the sky, gods of the land and

	and gods of the underworld. The chief gods of the sky were three. In their honor three cries (hono) were uttered by the ceremonial priest when human sacrifices brought, and the three bundles of fau stems were erected upon the me'ae on th occasion of funerals of inspirational and ceremonial priests. Upon the occasion such funeral rites the third of the gods of the sky, **Te-hiti-kaupeka**, was represe by coconut leaves braided, or by pieces of wood cut roughly, in the form of a bir emblem being the embodiment (or perhaps the messenger) of this god, which received the spirit of the deceased priest and conducted it to the sky. The manu would seem, then, to represent this bird messenger; and the hukihuki to be iden with the bundle of fau stems mentioned by Père Pierre.
Marshallese	**anij** — The natives regard anij as specters who do evil to men or at least instill f In the broader sense of the word, anij can include all terrifying beings, such as s monsters (anjin l□jit), poisonous fish, and morays. From this point of view, sorce (anijanij), too, as a machination injurious to man, is connected with the word anij
Masai	The Masai believe in one God whom they call **En-Gai**, which is the same word a they use for rain. They say that God is one, but permeates everything. He may b prayed to as inhabiting a wood, a stream, the earth, etc., but He is all the same The Masai only use short prayers such as "Na-Ai" (0 God) and "Na-Ai mikiar (0 do not strike me) except for the prayers at ll Pul and those of Laibons already mentioned. Some, if not all, of the ceremonies have a religious significance. but cannot give details without further experience.
Mbundu	This went on from day to day, until the boy in the deep hole became emaciated hunger and thirst. From lack of sunlight and food he became quite yellow. Yet S *3 **Suku** is the supreme ancestral deity, the closest translation of which is "God." the glossary at the back of this volume.* was with him, for although he lived in great distress, he did not die. Thus he mar to stay alive until his father returned.
Mbuti	Death, which is sometimes attributed to sorcery and witchcraft, is accepted as just as natural a phenomenon as birth, and the body is accorded little ritual respect (1: Turnbull, p. 222-C). There is hardly any information on the notions of the Mbuti on life after death, except that they firmly believe that life continues in some form or another, in much the same way that it is lived by the living. When a body dies, a vital part of it, the soul or personality leaves, becoming either a forest spirit (**SATANI**), or going to some other place where it will have nothing further to do with the living. In either of these cases it will continue to exist in much the same manner at it did when it inhabited the living person -- hunting, gathering, etc. The SATANI spirits, however, can die, whereas there is no death in the more remote spirit world. Among the archer groups of Mbuti, there is a distinction between body, shade, and soul, called respectively ELA (or EDA), TEDI, and BORU E' I (BORUPI in Efe). The breath or EKEU is the vital force extinguished at death. Shades become BEFE or forest sprites, while the soul appears to return to God (TORE) in the sky where it becomes a star.
Mende	**Ngewo**, the supreme being in Mende re-ligion, is the creator of the universe and everything in it. After creating the world, Ngewo went up to heaven and rare-ly intervenes directly in human affairs, although nothing good or evil can happen without his permission. Ancestral spirits are venerated, and prayers to Ngewo are channeled through them. Other categories of natural, occupational, and evil spirits (Ngafanga) exist. Through sacrifices and other

	rit-uals, often conducted by specialists, people propitiate the spirits and ask for their protection and blessings. Mende tra-ditional religion has declined since the advent of Western Christianity. A current religious feature is an eclectic tenden-cy to mix elements of traditional religion with those of Chris-tianity.
Micmac	The Mi kmaq are a Canadian Indian group living in eastern Canada. The name "Micmac" is from the Micmac Mi: maq, the plural form of Mi:k mawaj, "one of high ability," a word derived from **Mirk'amwesu**, the name of a legendary forest dweller with supernatural power.
Miskito	SUPREME BEING.—The religious system of these tribes has been fast disintegrating for the last generation. Nowadays both tribes believe in the existence of a Supreme Deity, which the Miskito call **Wan-Aisa**, “Our Father,” and the Sumu Ma-Papak or Ma-Papañki, “Our Father” or “Sun-Father.” Both tribes also make use of the name Dawan,“Master” or “Lord.” This conception has probably been borrowed from Christianity; still Exquemelin (Engl. ed.: 251) states that in his days (1671) the Miskito believed in one God. This Deity, which dwells in heaven, is sometimes confused with the various tribal heroes. According to these Indians, God has created the world and the inhabitants, but He does not appear to worry a great deal about the individual being, nor is He able to ward off the various dangers which continually menace mankind; consequently He is not honored with offerings, prayers, worship, or sacrifice. Furthermore, He lives so far away from earth that it is impossible to enter into relations with Him, and He can not be approached by man.
Montagnais	In the preceding pages, the importance of sharing and communal meals has been stressed. Mokoshan is also a communal meal, but it is a more elaborate and significant ritual than those described above. The Naskapi say that it is held to please the caribou spirit and to ensure future luck in hunting, especially in the hunting of caribou (see also Strong, 1929:284–285). The caribou spirit, which is called **Katipinimitaoch**, is the supreme spirit and the master of everything, including all the different animals. The ritual can be considered as an expression of the Naskapi's willingness to fulfill a transaction with the spirit.
Mundurucu	At the tree festival a tree is set up in the center of the dwelling house; the participants stand around it while the shaman smokes tobacco and invokes on the house the protection of **Karusakaibö**, the creator god.
Nama Hottentot	The religion of the Nama today is Christian (mainly Calvinist and Lutheran). In former times, Nama religion, and particularly mythology, [Page 192] centred around the relations between two good beings: Tsûi-//goab, the deity, and Haiseb or Haitsi-aibib (old orthography, Heitsi-eibib), the folk hero; and two evil beings: //**Gâuab**, the devil-figure, and ≠ Gama- ≠ gorib, the wicked trickster. Their ontological status in the collective Nama mind has been the subject of much speculation (cf. Schapera 1930: 376–89; S. Schmidt 1975–6). Tsûi-//goab, //Gâuab and their respective protagonists, feature not only in Nama myths, but even — sometimes with their names changed — in Bushman ones (see, e.g., S. Schmidt 1989: 35–6, 87–91). One eminent commentator (Theal 1919: 110) regarded the mythology of Tsûi-//goab and //Gâuab simply as ‘another version of Heitsi-eibib and ≠ Ga ≠ gorib [sic], cast in a more poetical mould’. There is certainly much truth in the similarity of the tales, though Theal himself was by his own admission ‘entirely unacquainted with the Hottentot language’ (1919: 91). He relied on Hahn (1881). Hahn is indeed the best primary source, but my reading of him suggests more a

	distinction between a sacred canon (Tsûi-//goab and //Gâuab) and a derivative secular or semi-sacred one (Haitsiaibib versus ≠ Gama- ≠ gorib). The relation between all these characters will be dealt with in detail in Chapter 14.
Nambicuara	This theory complements the information collected in the eastern group more than it differs from it. The jaguar in fact plays the same role as the **ata'su**, it also carries off the dying. But the central theory adds a complement. This is that the deceased is identified with the animal, who thus becomes a supernatural being. It was not possible to find out if the ata'su which one meets at night are considered to be the souls of reincarnated dead people.
New Ireland/Lesu	Besides the clan animal each piece of clan land is inhabited by the **gas**, a double of each living member of the clan. It is difficult to get a very exact idea of the gas, other than that each man, woman, and child possesses one, that it dies when its human counterpart dies, that it may take different forms (in one tale it appears as a dwarf), that it lives in a lima tree, and that it is rarely seen by its human counterpart. However, occasionally the folktales recount a meeting between a human being and a gas. One of the most interesting concerns the adventures of a man named Muk, a member of the Sinpop clan, who lived in the hamlet of Penguli. One day all the men of this hamlet, including Muk, went fishing, and after they caught the fish, they made a fire and prepared them for cooking. They had brought no taro with them, and so Muk returned to the hamlet to [Page 40] get some. With the taro he received from the women, he was on his way back to the men on the beach, when he came upon a group of gas, whom he mistook for men from Penguli; his own gas was among them. They said, “Who are you?” and he replied “Muk,” and then they showed him his gas, also named Muk. They told him to catch a very large fish named Un. This he did, but the fish was too heavy for him to lift. His gas, however, lifted it without any effort
Nicobarese	The Car Nicobarese dignify the spirit of man by the glorious name of “the master of the body (or flesh)” (**ma-a-la-ha**), though, like many other masters, this master has most imperfect rule over his rebellious minion; indeed he is practically dethroned, and the slave rules his master, rather than the master his slave. Like the Burmese, they think that the spirit [Page 124] can go away on its own travels, leaving the body behind, and that this is the cause of dreams. So they do not like to awaken suddenly any sleeper, lest the spirit might be away at the time, and might get flurried by the interruption, and never get comfortably home again; in which case the results might be very serious. The Nicobarese also further believe that one's spirit might get left behind in any place whither it had gone with the body; or that it might take temporary rest and shelter in some hole or crevice, or under the boughs of a tree, and so get lost. The person might not know anything about it at the time, though before long he would sicken and die if the spirit could not be brought back.
Nkundo Mongo	The Nkundó attribute the procreation of children sometimes to God (Njakomba) and sometimes to spirits (**elímá, pl. bilímá**). God forms (-ánga) the children in the mother's womb, but at the same time the bilím˝a provide the men among the progeny.
Nyakyusa	And then also there were sacred lagoons near the lake—Nthola, Kambwe, Kibondo, Mulale and Katindi. They were associated not with ancestral spirits at all but with a vaguely defined supreme deity named **Mbamba**. And beside

	them also prayers and sacrifices were made from time to time by the nobles of Ngonde.
Omaha	Before the influences of Christianization and Americanization, the Omaha believed in a continuous and invisible life force called **Wakónda**. This force manifested itself in the duality of motion and the action of mind and body as well as in the permanency of structure and form in the physical environment. This duality was further developed in the conceptualization of the universe as containing male and female parts whose union perpetuated order in all living things, including people's lives. Religious rites and social organizations such as the húthuga moiety system and the presence of two principal chiefs symbolized this concept. Young males would maintain a solitary fast for four days on a hilltop while praying to Wakónda for help throughout life. Since the early 1900s traditional beliefs have melded with those of multiple denominations of mainstream American Christianity and the syncretic peyote religion as codified in the Native American Church to produce a complex and sometimes conflicting worldview. The conception of Wakónda has acquired many of the anthropomorphic characteristics associated with the Christian God, including becoming the father of Jesus Christ.
Orokaiva	In general, they are not creators of the natural order but rather of the salient features of material, social and religious culture. Very often it is not through his deeds that a person becomes a **dema** but through the circumstances of his death or departure, which make his dema-like nature apparent and give rise to an institution. Thus, Totoima became a dema as the result of his body being shared among his people; Jomiko and Sirere became dema after departing, in their peculiar way, from the world of man. Similarly the coconut dema is a girl who was killed and from whose body a coconut grew. Thus she gave the coconut to mankind and, by this gift, acquired the status of [Page 63] dema.
Paiute	THE role of sorcery in social control can be understood only in terms of the concept of supernatural power. There are three main types of such power recognized by the Harney Valley Paiute: pu.ha, doctoring power; madaiya, other types of good power [1] [1] *Other types of good power are sometimes called pu.ha also, and not distinguished from doctoring power.* ; and pu ha.ba, sorcery power. All of these are thought to be bestowed on individuals by **spirit helpers**. In general, those individuals who have certain special talents are said to possess good power, while those who are thought to be "bad actors" are said to have sorcery power.
Palau (OR 15)	In addition to the houschold, village, district, and high gods mentioned above, the Palauans recognized a host of **nature spirits**. There was a god of the sea, the hurricane, the rain and other aspects of nature. In addition, practically every animate and many inanimate objects had a resident spirit that had to be propitiated upon certain occasions. Thus, the canoe maker had to take care not to offend the spirit of the tree which he used in the making of a canoe; likewise for the carpenter who built a house. It appears that these nature spirits, although of lesser importance politically than the gods associated with certain clans, also had, or could have, their intermediaries who understood them and translated their wishes for human beings.
Papago	Elder Brother and **Earth Magician**, having made human beings, quarrelled and Earth Magician retired with his creations underground. Elder Brother's

	people, who spoke the same language, remained above. He cared for them until he finally offended them and they killed him. He came to life and went underground to ask [Page 11] help of Earth Magician and his men in revenge. These latter were the present People.
Pawnee	An entire order of Sacred Bundles existed with ceremonies in which the people sought success in hunting, planting, growing, and harvesting. In 1872 the Pawnee chief, Pitaresaru, attempted to explain the Pawnee way to the Indian agent. He said that God gave the Pawnees corn, pumpkins, and other things. “Before we go on a hunt, before we plant, we make a feast and old men sing and God [**Tirawahut**] lets things grow. When corn gets so high, we have a ceremony, and ask God to give us it to live and to get Buffalo. We offer our food to God before eating.* *The food blessing ceremony is still performed during certain events among the Pawnees in Oklahoma today. Sam Young, a Chaui chief by blood, who was authorized to perform the ceremony, died in 1985, but others now perform it.*
Sami	Samuel Rheen says that the Lapps thought that **Thor**'s office was “to kill and slay all trolls, which they believed to be everywhere in the mountains and in the Lakes, and pictured him therefore holding a hammer in his hand. This hammer they called Thor's hammer, and the rainbow they called Thor's bow, with which he would slay all trolls who might want to harm them. This same Thor they also invested with power over men's health and well-being, life and death. Therefore all Lapps dread to hear the sound of thunder.” Rheen says that the Lapps made images of Thor; they made the head of a birch root and the rest of the stem of the birch. They erected the images on a kind of altar or table, six feet high, behind the tent. When they sacrificed to Thor, there should be one image for cach reindeer they offered. On the drawing which Rheen presents there are four [Page 144] images. Three of them have a hammer in each hand. It has been supposed that this trait belongs to an earlier stage of Scandinavian Thor worship than that which we know from Snorri Sturluson and other Icelandic authors
Saulteaux	One day, as this little girl was out of doors, she saw a cloud of globose form standing directly over the dream dance enclosure, which was, as a matter of fact, directly in front of her father's house and not more than four hundred yards from it. In this cloud she saw the **Great Spirit** seated. He pointed out to her some men near by who were playing cards and told her that people must not gamble and must not drink. He and the cloud then disappeared.
Semang	The staff of life of the nomadic Batek is wild yams (Dioscorea spp.). There is no Batek name for the wild yams as a group except bab, the general term for ‘food’. (They are usually called by separate ‘species’ names.) Supposedly, the wild tubers were once superhuman beings. After man had been created, some of the original superhuman beings (**hala' 'asal**) noticed that there was nothing for humans to eat. So they ordered some of their ‘coolies’ (kuliy), who were also hala', to become tubers. These coolies sent their shadow-souls into the earth, leaving their human-form bodies behind, and they formed tuberous bodies for themselves. But after a while, the hala' who had become tubers missed their relatives, who by then were living on top of the firmament, and they began to cry. So they sent their shadow-souls [Page 55] up to the sky. But the tubers continued to live in the earth, and they now reproduce themselves without any intervention from the superhuman beings. There is a separate story that explains how the Batek learned to process gadong (Dioscorea hispida), an important food source which is poisonous in its natural

	state. A human-form hala', Pa' 'Angkòl, caused the gadong to become poisonous in order to poison a wicked old woman called Ya' Kedat (some say she was a Malay hantu, 'evil spirit') who had killed and eaten his younger sisters. Afterward he taught the Batek how to leach the poison out of the tubers so they could continue to eat them.
Shilluk	Shilluk religious concepts are drawn into relief by an emphasis on the creator-g divinity known as **Juok** (a common Nilotic term for a spiritual power), the venera of Nyikang through the persons who become kings, and the recognition of the w which the spirits of the deceased can affect those who survive them. Juok is a ubiquitous spirit, a phenomenon manifest in all places and at all times. Juok can addressed through sacrifice of cattle, goats, and sheep. Juok is also strongly associated in Shilluk thought with the river spirit that first gave birth to Nyikang. Western depictions of Shilluk religion have been colored by nineteenth-century visions of "primitive religion." The Shilluk figured prominently in evolutionary sch put forward to depict the course of religious evolution. Ironically, although the Sh have become well known in the anthropological literature, no prolonged researc been carried out by a trained observer in their settlements. Thus, much of what been written about the Shilluk relies upon data that were collected in an inconsis manner in the early twentieth century.
Siriono	"Here and there throughout the area of their wanderings, they have also planted calabash and uruku trees. According to one of my oldest and best informants, Embúta (Beard), both calabashes and tobacco had been introduced in his lifetim which would be within the last 50 years. Of the other plants, however, he empat stated that his father had told him that they had been given to the tribe by **Moon** mythological hero) and were thus very old in Siriono culture."
Siwai	"Creation myths surround the great historic spirits, primarily "the Maker" ("**Tartanu**") who brought life to earth. There are many spirits (**mara**) associated with particular areas, kin groups, or men's houses, that are believed to have positive and negative qualities… Although **mara** are still feared, Christianity has generally replaced traditional beliefs." "The Siwai have a single story of the very remote past when they were simply a gathering people, their only food being collected from a range of readily available trees and bushes. After Tantanu (Maker) showed them how to plant food crops, gardening replaced collecting and a gardening economy became established, surviving unchanged for a very long time."
Suku	The key traditional elements were the **Creator**, medicines, the powers of elders witchcraft, and divination. The Creator was akin to a logical postulate of a first ca with no direct impact on everyday activities. A variety of individually held medici allowed for magical action, beneficent or nefarious, or both. A lineage-held med was one that had brought misfortunes to the lineage and had to be ritually taken and nurtured to prevent further depredations. Lineage elders had the power to c their juniors, withdrawing from them the mystical protection of the lineage agains misfortunes. Witches, whose power was acquired at birth from other witches, we regarded ambivalently: they could promote lineage interests but had occasionall "consume" lineage members. A misfortune, such as a sickness, could arise from or several of these sources. It was the diviner's role to sort them out and indicat necessary countermeasures. This conceptual system of dealing with misfortune not always satisfactory in practice, resulting in periodic revitalization-type mover

	that predate colonial control. These movements and Christianization have gradu undermined the integrity of the traditional system, leaving discrete bits and piece operating in conjunction with various Western Christian (Catholic and Protestant modern Afro-Christian beliefs.
Tallensi	But before we deal with these points, an aspect of the B(ɔ)□ar cult to which we h previously referred must be further discussed. An External B(ɔ)□arcan become t **spirit-guardian** (s□(ə)r) of an individual. An ancestor spirit who becomes a pers spirit-guardian is defined in native religious doctrine as 'He who has my life in hi keeping so that I exist ((ɔ)n m-mar n-ŋovor ka mb□)', and the ward (s□(ə)raan) r keep the totemic avoidances of the B(ɔ)□ar community. This applies particularly non-Talis (Mamprusi, Dagomba, Bulisi, and others) who come as pilgrims to the B(ɔ)□ar to supplicate for children. The special bonds of ritual dependence th created include both the parents and the children born, as the natives believe, in answer to their prayers. The Hill Talis themselves keep the avoidances whether not they are personally the wards of the B(ɔ)□ar; for, as they put it, they are all i facto under its spiritual guardianship.
Tanala	The interrelation between the Beings and Fate has never been clearly formulate the natives. Priests and ombiasy whom I interrogated agreed that both derived t powers from the same source, **Zanahary**. It was Zanahary or the Zanahary (plu who fixed the destiny of the individual at birth. Whether the ancestral spirits had hand in shaping it was uncertain, but the majority thought not. In changing destiny Zanahary was appealed to, but in a formal fashion, the real efficacy lying the magical acts accompanying the invocation. Apparently there was a feeling th the ancestral spirits could modify the destiny in minor details, but could not chan as a whole. The whole matter was very hazy in the minds of even the best instru natives and it was clear that they had not thought about it until I questioned then
Teda	Like all Muslims, the Toubou believe in **djinns**, beings of both sexes, invisible but mortal. These genie have grouped together among their cohorts the old spirits of the mountain, the dunes and the lakes, and today it is scarcely possible to [Page 315] 386 cont. recognize in these anonymous and devaluated beings those that can have belonged to the ancient religion of the Teda.
Tehuelche	I have now described most of the principal ceremonies observed amongst these Indians, but have not touched on their religion in any way. They believe in a good spirit gifted with much power, who made the Indians first, and also the animals necessary for their maintenance, which he dispersed from a hill visited by us in our wanderings, situated about lat. 47 degs. south, long. about 71 degs. 40 mins. west. This great spirit, however, according to their ideas, takes but little trouble as to their welfare; consequently most of their religious ceremonies are for the purpose of propitiating the evil spirits, which are several. The chief devil, however, who rejoices in the name of "**Gualychu**", [Page 203] is supposed continually to lurk outside and at the back of the toldo, watching for an opportunity to do harm to the inhabitants, and is only prevented from causing continual annoyance by the spells of the doctors, which latter are not only supposed to be gifted with the power of laying the devil, but also affirm that they can see him. On an occasion of sickness it is a common custom with these and other Indians to try and drive away the evil spirit by firing off guns and revolvers, throwing lighted brands into the air, and beating the backs of the toldos with lance shafts or bolas.

	Besides this particular household devil, if I may be allowed the expression, there are many others who live in caverns under particular rocks and rivers; these are supposed to be the spirits of departed members of the medical profession. Their power was, as far as I could ascertain, confined to the districts contiguous to their habitations.
Tikopia	The “woman of the siki” does not merely perform the technical role of midwife; she is also the representative of the spiritual powers responsible for the formation of [Page 30] the child. **The Female Deity**, goddess of women and all that pertains to them, is conceived as sitting by, invisible, watching the hands of the woman as they are spread to take the emerging babe. The bark-cloth sheet afterwards given to the woman in recompense for her services is also an acknowledgment to the Female Deity for her interest in the child.
Timbira	The term **kōkrį't** is not related to the words for tapir (kukrų't) and king vulture (kukriti), but is probably composed of kō, water, and krįt, wild. It refers to a race of monsters that, according to legend, once infested the Rio Tocantins, but has retreated downstream since the ingress of Neobrazilians. The Indians still believe in the existence of these kōkrį't and repeatedly asked me whether I had not somewhere in the course of my travels encountered these monsters along some uninhabited river. The term is often combined with the diminutive (-re) and augmentative (-ti) suffixes; and to designate the costumes the speaker adds -ho (leaves, straw): kōkrį'trehō', kōkrį'ttihō'.
Tiv	This legend[MPK: origin myth, see p. 40] embodies clearly the Tiv conception of God and shows that in their minds, the deity is the force behind nature and is immanent throughout the universe; in particular, the sky is God and God is the sky, and the word **A‘ondo** has both these meanings, there being no other term for God. This idea permeates the whole of Bantu consciousness and this broad concept satisfies them sufficiently without their wishing to penetrate into the details of the enquiry and follow it out to an exact conclusion; they are therefore far from the wish to emulate the Mahommedans in their bitter wrangles regarding the attributes of God, and it is useless for the European to expect to find well-crystallised ideas on the subject; we must be content to say that the Tiv regard God as a shadowy being of the sky, who provides the necessary rain to fertilise the crops, or that the rain is an actual emanation of the divine presence.
Tiwi	She cannot look at bodies of salt or fresh water, for the **maritji** might be angered and come and kill her. The maritji [Page 49] are spirit beings who have a body like a goanna or “quiet” crocodile. There are many of these spirits, men, women, and children, and they come in many colors. Their imunka (souls) are like rainbows. A big rainbow is likely to be the imunka of a woman and child maritji. The maritji are to be treated carefully, for they can kill a person or they can cause a great “sea” to rise up and destroy the land. They live in swamps at various localities throughout the two islands, and generally, if treated with respect and caution, will not harm the local inhabitants. Menstruating and pregnant women and newborn infants, however, are considered to be very vulnerable to the dangers of the maritji, and, therefore, must take extra precautions and completely avoid the homes of the maritji.
Toda	The **sabayin** always speak the truth, that is why they are called upon by marabouts treating a sick person, in order to learn the cause of the sickness. Mental illnesses may also be the result of possession by a sabayin. In that

	case, the muallim who called the sabayin excuses himself and discontinues the treatment (see p. 93).
Toradja (eastern)	Between Soeo-mboeko and Saloe-kaia the footpath to Bada' formerly began at a place which bears the name of Tokeimboe. This name is connected with a story in which it is said that immediately to the north of this point there is supposed to be an underground channel that carries the water from Lake Lindoe to Lake Poso, through which fish now and then go from the one lake into the other. Housed in the grotto from which this supposed channel flows are **water spirits** (imboe), which have the shape of snakes. It is from this that the grotto bears the name of Wajaoe ri Tokeimboe, or Penawoeimboe, "the place where the imboe let themselves fall.
Trobrianders	Once the tree is chosen the toliwaga , the builder and a few helpers repair to the spot, and a preliminary rite must be performed, before they begin to cut it down. A small incision is made into the trunk, so that a particle of food or a bit of areca-nut can be put into it. Giving this as an offering to the **tokway (wood sprite)**, the magician utters an incantation:--
Trukese	Above the star-sky is found the sky proper, the seat of the gods (fatam). In all the directions of the wind lie /4/ regions which are inhabited by the gods (bisin önu or lenin önu). The center of the sky is also called long sky (lenitam, or more properly fatam). This expression fatam can be found in almost all prayerful invocations. Here in the region of Letulap (great shadow) stands the house of **Önulap** (great spirit), the frequently mentioned udden Önulap. His numerous brothers and sisters live with him. East of the region of Önulap lies the land Lemuliar with the sacred lake. On the shore of this lake the gods and children of the gods gather for joyful play. Their lulu (toy canoes) shoot over the water as quick as arrows. A great female eel (half eel, half human) named Nisoukepilen dwells in the lake. It is said in a lullaby:
Trumai	Most of the Trumaí mythology is devoted to explaining the origin of the natural world, people, and culture. The chief creator deities are Sun and **Wamutsini**.
Tsonga	Some Lakes and Rivers are believed to be inhabited by spirits, but not in the ordinary fetichistic way, in which a special spiritual being is incorporated with the natural object; these spirits are **psikwembo**, spirits of the deceased ancestors of the owners of the land, and are propitiated by their descendants. Should another clan have invaded the territory where these lakes are, and crocodiles threaten the fishermen, (p. 88) they will call some one belonging to the clan of the old possessors of the country and ask him to make an offering to appease his gods. This is the ordinary course, and the more closely we search the more completely these lake and [Page 325] river spirits become identified with ancestor-gods. In my investigations I found one case, however, where a special spirit, a kind of Nature spirit seemed to be invoked. This was on the sea shore, in the northern part of Nondwane, at a place called Mahilane, where there are two great rocks on the beach. When the great waves dash against them, with a fearful roar, people go and sacrifice (hahla); they pray thus: "Tsu! Oh sea! Let vessels be wrecked, and steamers also, and let their riches come to us and help us." In former times, a young girl was sometimes exposed there as a prey, or an offering to the power of Mahilane. Now this is exactly what is done in the sacred woods for the ancestor gods and, in fact, Mboza asserts that: "When abandoning the girl, the officiant says: You, Psikwembo, ancestor-gods, drive on the sea that it may wreck vessels."

Tupinamba	Tupinamba religion centered on a world filled with a host of supernatural beings which were classified into two major groups: (1) individualized spirits, frequently of a malevolent nature and sometimes referred to as demons, and (2) ghosts. Ghosts were far more prevalent in the supernatural world of the Tupinamba than spirits, and of a much more impersonal nature. These beings could be encountered everywhere, but especially in the forests, dark places, and in the vicinity of graves. Ghosts were credited with causing disease, droughts, and defeat in warfare. Certain animals, such as black birds, bats, and salamanders were considered as the alter ego of ghosts. Ghosts were particularly troublesome in the dark but could be driven away by the fires kept burning day and night in the longhouses. Of the spirits or demons, **Tupan** (Tupã or Toupan) seemed to be of primary importance. He was the spirit of thunder, lightning, and rain, and was roughly equivalent to a supreme god. After European contact Tupan was promoted to the rank of the Christian God by the missionaries, and as such still survives among the Tupí-speaking Mestizos of the region. Other major spirits who populated the bush and were greatly feared by the Tupinamba were Yurupari, Añañ and Kurupirá. Just as Tupan was identified with the Christian God, so too was Yurupari identified with the devil. Confusion also arises in identifying the true nature of Añañ who at one time is called a bush spirit, and at another, a ghost. Kurupirá, barely mentioned in early documents, is the hero of numerous tales among the twentieth century Tupí. Other spirits known to the Tupinamba but rarely mentioned in the literature were Makashera, Uaiupia, Taguaigba, and Mbae-tate (will-o'-the-wisp).
Vedda	Such appears to be the form which the superstitions of every savage tribe naturally assume,—the necessity for a belief in something more than human, imparting to the commonest objects a supernatural character. But besides this vague spirit-worship, they have a more definite superstition, in which there is more of system. This is the belief in the guardianship of the spirits of the dead. Every near relative becomes a spirit after death, who watches over the welfare of those who are left behind. These, which include their ancestors and their children, they term their "**néhya yakoon**," kindred spirits. They describe them as "ever watchful, coming to them in sickness, visiting them in dreams, giving them flesh when hunting." In short in every calamity, in every want they call on them for aid; and it is curious that the shades of their departed children, "bilindoo yakkoon," or infant spirits, as they call them, are those which they appear most frequently to invoke
Warau	The NAHANAMU complex is at the core of the Warao groups inhabiting the Central Delta between the MAKIRI and the ARAWAO. Until recently, it involved the most important [Page 168] features of their environment, the moriche palm, and the staple food collected from it, the yuruma flour. When the rivers become turbid with the rainy season and their water turns an acid black, many young children die easily of intestinal troubles. For the well-being of these children, offerings are made to the HEBU spirit. The supreme spirit, **HEBU WITU**, in the Central Delta is symbolized by a stone and called KANOBO, "our old man", or "our ancestor". He communicates with the group through the priest-shaman, WISIRATU. This KANOBO ARIMA, or "father of the KANOBO", as he is called if his temple contains a sacred stone, is not only a key figure in the religion, but also in the polity and socio-economic organization of the group.

Western Samoans	Today, Samoans are devout Christians, following diverse Protestant denominations, as well as the Roman Catholic Church. Pre-Christian beliefs in ancestor-spirits (aitu) are still widespread, but they are not openly confessed vis-à-vis Europeans. Aitu formerly were family gods, and they have retained their character as locally associated and kinship-bound deified ancestors. There was a belief in a supreme being, **Tangaloa**, but Samoa probably never developed a national cult like that of the Society Islands or Hawaii. Tangaloa was a deus otiosus who withdrew after having caused the emergence of the islands and set in motion the process which led to the evolution of natural phenomena and, ultimately, humans. Aitu were the active numinous beings who interfered directly in everyday life.
Wolof	The daily ritual prayers and feast days of the Muslim are today universally observed by the Wolof, though some of them, for the most part young men, break the taboos concerning food and drink - a practice especially noticeable in Bathurst and in the wharf towns. There are a number of other departures from orthodox Islamic practices also to be observed: women are neither veiled nor kept in seclusion, and there is considerable retention of pre-Muslim religious beliefs, usually in a re-interpreted form. Among the Wolof, as among the Hausa of Northern Nigeria, [36] *36 Greenberg, J., 1946.* many of the pre-Muslim spirits, good and bad, have been identified with jinn of the Koran; and the pagan belief in a supernatural animal - usually a large snake - which acts as sort of a **village guardian** and is responsible for the fertility of the people, has persisted without change. Also apparently unchanged are the beliefs in personal spirits, in little forest spirits, in an important spirit who is in charge of every well, and in a creature called borom san who shoots invisible, deadly arrows. Wolof are also particularly afraid of witch-like creatures known as doma.
Yahgan	Much of the religious life of the Yahgan centered on shamanism and theism (the belief in a supreme being called **WATAUINÉWA**); there was neither established religious dogma nor a formal body of beliefs. WATAUINÉWA was master of the whole spirit world which was inhabited by a host of unseen and basically malicious beings, such as the ghosts (KUSHPIG) of dead shamans, and spirits of the sea, rocks, and trees. To him prayers were addressed in sickness, grief, and thanksgiving. He was the dispenser of justice and always punished the wicked. Although fear of the dead was a distinct element in the society, there was neither an organized cult of the dead nor were there prayers to the dead. Other magico-religious conceptions of the Yahgan were beliefs in individual guardian spirits (YEFĀČEL), omens, and the observance of various taboos. It seems that divination was not part of the religious practices of the Yahgan.
Yanomamo	After the completion of the third year, a new, important period of life begins. The nursing period is ended, and the child, which hitherto belonged to the flesh and blood of the mother, has become an independent human being. Now it is also given a name, which is taken from the animal or vegetable kingdom. The name is given to the father, when he offers his prayers in snuff-powder intoxication, by the gigantic animal and plant spirits living on [Page 139] 64 cont. high mountain ridges -- **hekurá** --, who represent the intermediaries to Poré and Perimbó, the joint Supreme Being of these Indians (see pp.197/199). The particular animal or plant whose name a child bears is regarded as a sort of " spiritus familiaris " throughout its life. This is linked to the idea that the fate of the child has now become identical in essence with

	them; that is to say, good fortune, but also the suffering and dying of animals and plants are transferred to the like-named human beings.
Yapese	Fire came to the people of Uap through the god **Derra** (lightning), who came down and struck a large hibiscus tree at Ugutam, a slave village at the northern end of the island. A woman, whose name is unrecorded, begged the god for the fire; he gave her some and showed her how to bake an earthen pot. When the fire died out, he taught her how to obtain more by means of the fire-drill, and told her that fire in a new house must always be started in this manner, and for it only the wood of the hibiscus tree should be used, moreover this wood must be cut with shell knives or shell axes, neither iron nor steel must touch it.
Yokuts (Lake)	If a man wanted to live long or wished for other benefits, he would go to a chief and buy some **eagle** down (čayi). (He could resell all or any part of this if he wished.) Some winter night, no matter how cold, he would go off to a distant hilltop. He wore no clothes and went about midnight. Before starting he chewed a little tobacco and then spat it out. At the hilltop he would scatter eagle down and in a standing posture “talk to those two tia□as” (Eagle and Wolf [sic; Mountain Coyote]). He would enumerate all those things which he did not want to happen to him and all those which he did want. He stayed and talked this way for about thirty minutes; Eagle or Wolf would reply.
Yurak Samoyed	Till their conversion to Christianity, about the beginning of the present century, the Samoyedes were followers of Shamanism, believing in a **Supreme Being (Num)**, the devil (Aa), spirits (tadebtsi) and household gods (hegi). Num was the Supreme Being who created and dominated the universe. He dwelt in the expanse, and scattered at will thunder, lightning, rain, snow and tempest. The Samoyedes saw his [Page 276] embodiment in the sun, stars, and sea, and, in general, in all the phenomena of Nature.
Yurok	Far across the ocean, well beyond the edge where the sky came down to touch it, was the home of Nepewo (the headman of the salmon) and of **Dentalium Shell Money**, both of whom lived there in wooden houses much like those the Indians occupied. Wohpekemeu also made his home there, and it was believed that these and other godlike beings visited the human world on a regular basis despite the terrific distances involved.
Zuni	The most frightening of all threats for a child is to be told that **Atoshle** will visit the house. This scare katchina has a horrible countenance, is dressed grotesquely in a large mask with huge mouth, great protruding eyes and disheveled hair and teeth, carries a long sword in one hand, and a cane in the other, while on its back is a basket in which naughty children are carried off. If a woman has a 104 disobedient child she may request the kiva chief to send Atoshle to her house. (6) *6. Bunzel, Zuni Katchinas, pp. 937–941.* The children are told that this creature will eat them. Boys are also told that Atoshle will castrate them.

Research assistants coded this set of 850 supernatural agents on 50 different features (referred to as traits in our coding manual). We have hosted our coding manual on our OSF page, and each of the 50 coding features are given in Supplementary Table 3. Our codes concerned the features of supernatural agents. Examples of these features include **multiple forms** (this god takes on multiple forms), **psychological** (this god is capable of human-like psychological capacities such as planning and thinking), and **familial relationships** (this god is part of a

family of gods as a daughter, father, etc.), and **responds to appeals** (this god responds to human appeals. This includes rituals and prayers intended to bring about changes in the world). Research assistants used the following coding scheme to determine whether features were present or absent:

Use the following coding scheme to indicate whether a trait is present or absent:

10) Absent, directly stated in source material
11) Absent, inferred from source materials but not explicitly stated
20) Present, directly stated in source materials
21) Present, inferred from source materials but not explicitly stated
30) Uncertainty in sources due to insufficient information
31) Uncertainty in sources due to conflicting information

Supplementary Table 3.
List of Codes with Descriptions

Categories	**Traits**
Anthropomorphism	*1. Human Body:* This god is described as having a human-like body. This includes gods that take a human form at any point, even if it is only temporary.
	2. Gender: This god has an identifiable gender (if coded as "present," please specify "male," "female", "both", or "other" in the justifications section).
	3. Ages: This god is capable of ageing and growing old.
	4. Physical: This god is capable of human-like physiological sensations (e.g. fatigue, hunger).
	5. Psychological: This god is capable of human-like psychological capacities (e.g. planning, thinking).
	6. Emotion: This god is capable of feeling human-like emotions (e.g. grief, love).
	7. Unfeeling: This god is impervious to feeling physical pain or suffering.
	8. Mortal: This supernatural can he killed in a way that entails a permanent end to their ability to think and perform actions (e.g. through disease or homicide).
	9. Animal Form: This god has the appearance of one or more non-human animal.
	10. Lives on Earth. This god lives on earth (rather than in some spiritual realm). Note that codes 10 and 11 are not mutually exclusive, both can be true.
	11. Spiritual Realm. This god lives in a spiritual realm (rather than on earth). Note that codes 10 and 11 are not mutually exclusive, both can be true.
	12. Superhuman. This god is described as having at least one superhuman ability, such as flight, super strength, or moving through objects.
Inter-God relations	*13. Familial Relationships:* This god is part of a family of gods as a daughter, father, etc.

	14. Hierarchical: This god is part of a recognized hierarchical structure of gods. This means that one or more gods in this system has the authority/power to command and/or coordinate the behaviors of other god(s). Note that, if gods only differ in their capabilities, this is not sufficient to be considered a hierarchy.
	15. High God: This god is at the top of a hierarchy of other gods.
	16. Jealous God: This god explicitly disapproves of the worship of other gods.
Intervention	*17. General Communication:* This god is capable of directly communicating with most people within the society. This includes messages provided through speech, writing, dreams, or possession.
	18. Privileged Communication: This god only directly communicates with a class/group of individuals within the society. These individuals likely represent a minority of the society and include people like mediums, shamans, and priests.
	19. Responds to appeals: This god responds to human appeals. This includes rituals and prayers intended to bring about changes in the world.
	20. Blood Sacrifice: This god responds positively to human or animal sacrifice (if yes, please specify the sacrifice in "justifications").
	21. Specific Intervention: This god intentionally intervenes in the lives of humans, but only in one or a few specific way(s) (e.g. creating thunderstorms, or increasing fertility).
	22. Broad Intervention: This god intervenes in the lives of humans in multiple ways that go beyond a single domain (e.g. creating thunderstorms, determined the outcomes of a hunt, and increasing fertility).
	23. Coverage Beyond Community. This god intentionally intervenes in the lives of humans who live outside of the society.
	24. Moralistic Punitive: This god punishes human behavior that it deems undesirable. This does not include harming people as a show of power or spite.
	25. Spiteful Punitive: This god harms people as a show of power or spite.
	26. Created Earth: This god created the earth.
	27. Created Humans: This god created human beings.
	28. Requires Belief: This god cares about whether humans believe in them or not.
	29. Mythological: This god resides primarily in mythology (i.e. people tell stories about this god or it exists in the pantheon, but does not have any corollary human behavioral expressions). Please specify the myth if it is given.
	30. Function: This god is explicitly described as serving some kind of function. If "yes," please code 30a-30e and briefly justify your decisions in the "justification" column.

	○ *30a.* An epistemic function, such as explaining concepts or phenomena to people.
	○ *30b.* A social function, such as alleviating loneliness or consoling someone in a time of need.
	○ *30c.* An instrumental personal function, such as curing people of disease or infertility.
	○ *30d.* An instrumental group-based function, such as helping the society in conflicts.
	○ *30e.* Some other function (please specify).
	31. Associated with human behavior: This god is associated with specific human behaviors. If "yes," please code 31a-31g and briefly justify your decisions in the "justification" column.
	○ *31a.* This god is associated with prosociality (how people treat each other, e.g. murder, theft, generosity, sharing).
	○ *31b.* This god is associated with virtue (well-regarded qualities within a person such as honor, strong work ethic, etc.).
	○ *31c.* This god is associated with etiquette (e.g., behavioral politeness, manners, and other arbitrary symbolic behaviors).
	○ *31d.* This god is associated with ritual (repetitive acts of devotion, obligation, etc. towards this god).
	○ *31e.* This god is associated with management of natural resources (aspects of non-human life such as preservation of natural landscapes, caring for animals, etc.).
	○ *31f.* This god is associated with sexual behaviors (e.g. incest, marriage rules, etc.).
	○ *31g.* This god is associated with some other human behavior (please specify).
Moral Character	*32. Morality:* Does this god have a moral code (i.e. believe that some actions are good and others are bad)?
	33. Prosocial to Humans: This god expresses prosocial intent towards humans (not mutually exclusive of other intent towards humans).
	34. Antisocial to Humans: This god expresses antisocial intent towards humans (not mutually exclusive of other intent towards humans).
	35. Prosocial to Gods: This god expresses prosocial intent towards other gods.
	36. Antisocial to Gods: This god expresses antisocial intent towards other gods.
	37. Trickster: This god plays tricks/pranks on other gods or humans for pleasure.
Miscellaneous Additional Codes	*38. Multiple Forms:* This god takes on multiple forms.
	39. Possession: This god possesses people or animals (please specify in "justification").

	40. Location: This god lives or is associated with a specific place or object (e.g. a specific river, tree, or shrine).
	41. Omniscient: This god is omniscient: people believe that it knows everything.
	42. Omnipotent: This god is omnipotent: it has unlimited power and can do anything.

Our coding process contained several checks to ensure that our codes were accurate. First, we saved the raw source material for all of our codes, and whenever research assistants made an "inferred" code, they were instructed to explicitly quote the text in the source material that justified their inference. We took this step because of recent concerns that inferred absence and inferred presence can unduly bias the results of large-scale ethnographic coding projects.

Second, we developed a "checking" process to verify the accuracy of codes. After a research assistant had finished coding a supernatural agent, another research assistant would check each of their coding determinations against the source material. If they disagreed with any of the original determinations, they would suggest a replacement code and write a justification. The second author of the paper would adjudicate and resolve research assistant disagreements.

Finally, we conducted a large-scale external audit of the codes prior to analyzing our dataset. For this audit, we sent 13 of our codes to an independent pair of scholars who were not involved in constructing our original dataset. These scholars had earned their respective PhDs in religious studies and anthropology. They read through all of the source material and each of our coding determinations, and suggested changes when they disagreed with a coding determination. In Supplementary Table 4, we list each of the variables that they audited along rows, and provide the percentage of time that they agreed with our coding determinations for each variable. The percentages were all above 90%, and all but one code (prosociality) was above 95% agreement, suggesting that our original codes were largely accurate.

Supplementary Table 4.
Percentages of agreement between coding and audit

Variable names	**Percentage Agreement**
Superhuman	99.53%
Righteous punitive	98.47%
Created earth	99.29%
Created humans	99.76%
Prosociality	94.47%

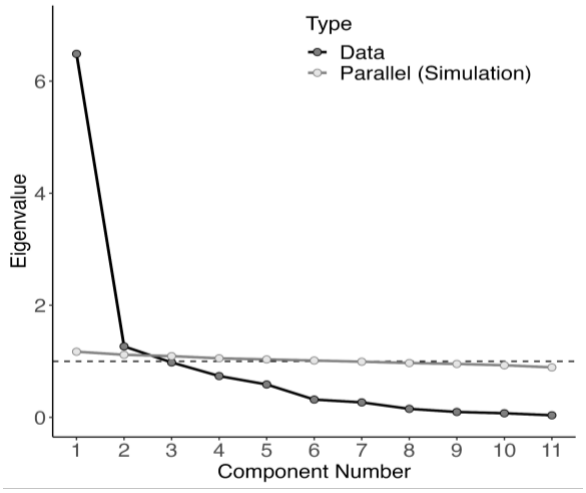
Virtue	96.94%
Etiquette	96.82%
Ritual	96.71%
Natural resources	97.18%
Sexual behaviors	98.59%
Other	98.94%
Morality	97.29%
Omniscient	98.82%
Omnipotent	99.41%

In total, this process spanned 4 years. We began the initial reading process in 2018, completed the coding process from 2019 to 2021, and then completed the audit in 2022. We then analyzed the data between 2023 and 2024.

Meta-Data

In addition to our original codes, we collected meta-data from D-PLACE: https://d-place.org/. These meta-data included the geographic coordinates of each society and the ecological characteristics of each society.

We collected the same ecological variables as Botero and colleagues: Amphibian richness, mammal richness, bird richness, vascular plant richness, net primary productivity, annual mean temperature, annual temperature variation, temperature predictability, monthly mean precipitation, annual precipitation variation, and precipitation predictability. We performed a Principal Components Analysis (PCA) using all societies in D-PLACE whose ecological variables are not missing (n = 1674). Consistent with Botero and colleagues, we conducted necessary data transformations prior to the PCA and used the Kaiser rule and parallel analysis to determine the number of principal components (PCs) to retain. As in the study by Botero and colleagues, our results also suggested a reduction to a two-dimensional structure, which is presented in Supplementary Figure 1.



Supplementary Figure 1. Scree plot of ecological variables in PCA. The dark nodes represent the observed eigenvalues of the first 11 principal components. The lighter nodes represent the eigenvalues of a parallel analysis simulation.

The first PC in our analysis, accounting for 42.96% of the variance, is composed of variables related to temperature and biodiversity. The second PC, explaining 27.52% of the variance, includes variables pertaining to precipitation and net primary productivity. In contrast to Botero and colleagues' findings, where the PCs primarily represent resource abundance and climate stability, our PC1 was clearly related to abundance whereas our PC2 was a more mixed variable representing abundance in some respects (net primary productivity), and unpredictability in other respects (annual precipitation variation). We likely found a different solution to Botero and colleagues because we analyzed a larger set of societies.

We collected information about social complexity using the 10-item index developed by Murdock and Provost. The index includes writing and records, fixity of residence, agriculture, urbanization, technological specialization, land transport, money, density of population, political integration, social stratification). We also included White’s population size variable in the index, which correlates highly with the other indicators and has been included in past research on religious belief and social complexity. Previous analyses have found this index of social complexity to correlate positively with Murdock’s moralizing high god variable, and with the frequency of supernatural explanations of social phenomena. In the supplementary materials, we present analyses of social complexity broken down into its individual indicators.

We collected information about linguistic distance by pairing societies with languages on a global language phylogeny. Language-based phylogenies provide a general proxy for Language-based phylogenies can provide a general proxy for common cultural ancestry and have previously been used to test evolutionary hypotheses about religion and society. Our primary phylogeny was developed by the Automated Similarity Judgment Program, which collected vocabulary lists from world languages and dialects. Since the authors relied on automated similarity judgements of vocabulary items rather than expert cognate judgments, they were able to build a vastly more comprehensive tree that spans multiple language families.

Supplementary Figure 2 displays the language phylogeny tipped with the 109 societies from our sample.

— Insert Supplementary Figure 2 Here —

Distance Regressions

Our distance regressions analyzed pairs of societies, with intercepts varying across each society in the pair. In the society-level model, we faced a decision about how to aggregate supernatural agents to the society level. One approach would code for the proportion of supernatural agents which shared a feature in a given pair. This approach would be the default if we entered society-level variables into our agent-level mixed effects model. However, it had several key limitations. First, some features of supernatural agents (e.g., whether supernatural agents were high gods) could, by definition, not be true of all supernatural agents in societies which set an artificial limit to the proportion score. Second, the denominator of the proportion score would be the number of supernatural agents in our dataset, which is an artificial value that is unlikely to correspond to the number of supernatural agents in the society. A second approach would code for whether any supernatural agents in a society showed evidence of a given feature. This approach addressed both of the concerns of the proportion approach, and it also dealt with missing data better. It had a different limitation, which is that societies with many supernatural agents possessing some feature would get the same score as societies with just one supernatural agent possessing some feature. We ultimately ran the model with both approaches, and they yielded the same results. We chose to present results using the second approach in our main text, but we summarize the proportionality approach in our supplementary materials. This section also provides a longer explanation for the two approaches.

Our society-level model contained fixed effects representing geographic proximity, linguistic proximity, similarity in social complexity, similarity on ecology (two variables representing both of the PCs), similarity in the start-date of the fieldwork, similarity in the end-date of the fieldwork, similarity in the mean publication date of the ethnography, similarity in the eHRAF strength of the source material, similarity in the volume of the source material, and similarity in source type.