Constructing Images of the Divine:

Latent Heterogeneity in Americans' Impressions of God

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A variety of evidence suggests that individuals vary in the images they hold of God, and that this variation correlates reliably with religious attitudes and behaviors. But how do individuals psychologically organize their images of the divine? Most work on this topic is factor-analytic in nature, finding that God-images vary in the degree to which God is seen as loving, judgmental, and engaged. However, few studies look at how individuals spontaneously combine these divine dimensions into composite images of God. To fill this gap, we subject data from the 2010 Baylor Religion Survey to latent class analysis and find evidence for five key images of God: (1) a poorly-defined, uninvolved deity; (2) a loving, nonjudgmental deity who is engaged with humanity; (3) a nullity or nonentity; (4) a loving deity who is neither judgmental nor engaged with humanity; and, (5) a loving deity who is also both judgmental and engaged. We then present evidence that individuals holding these images vary in their denominational background, religious attitudes and behaviors, and general traits.

Key words: God-images, latent class analysis

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"What comes into our minds when we think about God is the most important thing about us."

~A.W. Tozer¹

"I read in a periodical the other day that the fundamental thing is how we think of God. By God Himself it is not!...how we think of Him is of no importance except in so far as it is related to how He thinks of us.

~C.S. Lewis²

1 Introduction

Philosophers and theologians have devoted tomes to understanding the nature of the divine. For their part, social and behavioral scientists have also turned to the issue of how individuals perceive God – that is, what images they attribute to the divine (Greeley, 1995). Though the question of how people see the divine is relevant in almost all religious contexts that posit the existence of personal deities (Henrich, 2009; Stark & Brainbridge, 1996; Swanson, 1960; Tylor, 1871), questions about the character of God are most commonly examined in the context of the major monotheistic faiths (especially Christianity; Stark, 2001; see also Froese & Bader, 2007, 2008; Bader & Froese 2010; Gorsuch, 1968).

Over the course of several decades, this literature has explored both the content of individuals' images of God and the antecedents and consequences of holding one image of God as opposed to another. Broadly speaking, a consistent message of research in this area is that variation in images of the divine has functional significance for social groups and individuals alike, especially in terms of their ability to produce moral cohesion and prosocial behavior (Norenzayan et al., 2014; Stark, 2001). However, mapping out the structure of said variation has proven to be more difficult. Researchers have theoretically posited and empirically measured a wide variety of features of God, and have come up with different answers about how different images may or may not co-occur (see Schaefer & Gorsuch, 1991; 1992; Bader & Froese 2010). A core strategy in this literature has been to reduce this variation to a relatively small set of dimensions (Gorsuch, 1968; Spilka, Armatas, & Nussbaum, 1964). Though different analyses have recovered different dimensions, a handful of characteristics tend to repeatedly emerge, including dimensions corresponding to the

¹ The Knowledge of the Holy. 1978. Harper Collins.

² The Weight of Glory. 1941/2001. Harper Collins.

extent to which persons perceive that God is loving, judging, and engaged (e.g., Roberts, 1989; Froese & Bader, 2008, 2010).

In the present study, we take a different approach to making sense of how individuals organize images of the divine. Rather than attempting to find *latent dimensions* that explain how the traits attributed to God vary from person to person, we seek to find *latent categories* of individuals with different composite views of God – that is, images of God defined by different assemblages of divine traits. To do so, we subject a set of Godconcept measures from the 2010 Baylor Religion Survey to latent class analysis (McCutcheon, 1987) and isolate groups of individuals holding five key images of God: a poorly-defined, uninvolved deity, a loving, nonjudgmental father who is engaged with humanity, a nullity or nonentity, a loving father who is neither judgmental nor engaged with humanity, and a loving father who is also both judgmental and engaged. We then explore how membership in these classes varies by denomination, beliefs and practices, traits, and demographics, finding that individuals with different composite views of God reliably differ in their own characteristics. Ultimately, our approach allows us to go beyond cataloging specific images of the divine to make sense of how different groups of individuals assemble these images into overall impressions of God.

1.1 Images of God

Psychologists, sociologists, and anthropologists alike have expressed interest in the images that people hold of deities, and perhaps more importantly, the functional bases of those images. From an early psychological perspective, Freud (1927) argued that common images of the divine represented a projection of parental authority – in particular, the authority of the father. Though Freud was by no means unconcerned with how paternal images like those attributed to God might aid in social cohesion, theory and research in sociology and anthropology have traditionally paid more attention to how different images of the godhead might functionally relate to social organization (Stark, 2001).

In this vein, classical work in the latter disciplines has consistently identified religious ideas as the basis of moral order. Most prominently, both Emile Durkheim (1915) and Bronislaw Malinowski (1935) made this argument, focusing on the role of shared ritual and custom in sustaining the boundary between right and wrong. Others, however, have argued that this conception of the relationship between religion and morality was overly general (Stark, 2001). Although both religion and morality are widespread, these perspectives contend that the two are functionally linked only when the divine is conceptualized in a particular way – i.e., in terms of powerful deities that are actively concerned with the moral behavior of humans.

This regularity was observed in early anthropological work (Swanson, 1960; Tylor, 1871), but it has been elaborated upon in greater theoretical detail in the last few decades. In

this vein, Stark (2001) examined comparative data and found that one religious concept in particular – the notion of God as a personal being who cares about human morality and actively seeks to enforce it – is associated with moral behavior across societies and individuals. More recently, evolutionary theorists have built on this idea (e.g., Henrich, 2009; Roes & Raymond, 2003; Norenzayan, 2013), arguing that belief in "big," all-seeing gods who explicitly enforce ethical prerogatives is more likely to sustain cooperation in large, complex social groups, and may have thus been culturally selected for over time. Consistent with this, numerous studies suggest that the salience of morally-concerned, punitive images of God reduces cheating and boosts displays of group solidarity (Norenzayan, 2013; Norenzayan & Shariff, 2008; Norenzayan et al., 2016).

Thus, specific images of God may have functional significance at the social-group level. Importantly, research also suggests that variation in God-concepts predicts attitudes, behaviors, and identifications in multiple domains (Greeley, 1995; see also Norenzayan et al., 2016). For example, numerous studies suggest that the degree to which individuals perceive that God is compassionate and gracious versus wrathful and judging is reliably associated with certain social attitudes. Individuals whose concept of God is more judgmental tend to be more politically intolerant (Froese, Bader, & Smith, 2008) and inclined toward biblical literalism, greater frequency of religious practice, and identification with the Republican Party (Bader & Froese, 2005). In contrast, those who perceive God to be more compassionate display greater social trust (Mencken et al., 2009) and less punitive criminal-justice attitudes (Unnever, Cullen, & Bartkowski, 2006).

Other God-images besides those contrasting a compassionate God with a more judgmental one appear to have predictive significance as well. Consistent with the aforementioned theoretical perspectives suggesting that morally-engaged gods are more likely to constrain attitudes and behavior, individuals who believe in a God that is active in the world and concerned about human actions are more likely to be social conservatives and have a relatively "absolute" conception of morality and religious truth (Froese & Bader, 2007, 2008) and more likely to rely on coping strategies that emphasize deference to or collaboration with God in the face of stress (Maynard, Gorsuch, & Bjorck, 2001). Lastly, gendered images of God have reliable correlates as well. Conceptualizing God as masculine in nature is associated with conservative political preferences (Cassese & Holman, 2017; Greeley, 1988, 1995), adherence to traditional gender roles (Whitehead, 2012), and opposition to gay marriage (Whitehead, 2014).

1.2 How are images of God psychologically structured?

Thus, images of God appear to be functionally significant with respect to other variables at multiple levels of analysis. But what range of divine images do people hold, and how do they psychologically organize those images? Put another way, how do different images of the

godhead relate to one another? The earliest empirical efforts to map out God-concepts used a multistage approach (Spilka, Armatas, & Nussbaum, 1964). In the first stage, open-ended responses were used to take a census of individuals' images of God, and then the resulting images were used to create close-ended items that new samples of individuals could use to rate the descriptiveness of different images of God. These responses were then subjected to factor analysis to extract latent dimensions of people's God-concepts (e.g., Gorsuch, 1968).

Depending on methodology, these analyses recovered notably different numbers of dimensions. For example, Spilka et al. (1964) extracted 11 and 12 core factors in different samples. Nevertheless, some factors consistently explained more variance than others, corresponding to perceptions of God as a stern father, a loving father, an infinite or "omni" being, an impersonal entity, or a supreme ruler. Other early analyses found similarly complex factor solutions, though certain dimensions again predominated over others. For example, conceptualizations of God as benevolent, wrathful, omniscient, omnipotent, and omnipresent constituted common features of the divine (e.g. Gorsuch, 1968; Spilka, Addison, & Rosensohn, 1975; see also Schaefer & Gorsuch, 1992).

Subsequent research has generally tried to characterize the psychological structure of God-images in more parsimonious terms by focusing on the most important factors identified in dimensional analyses. A survey of this literature suggests three dominant dimensions of people's conceptions of God, corresponding roughly to the extent to which God is seen as (1) more versus less loving (a dimension sometimes characterized as benevolence, or as "positive" or "maternal"), (2) more versus less judgmental (a dimension sometimes characterized as "negative" or "paternal"), and (3) more versus less engaged in the world and concerned with human moral actions. The first and second of these dimensions are the most frequently discussed at a theoretical level (e.g., Dickie et al., 1997; Mencken et al., 2009; Potvin, 1977) and the ones that most consistently emerge in factor analyses (e.g., Hertel & Donahue, 1995; Nelsen, Cheek, & Au, 1985; Roberts, 1989; see also Vergote et al., 1969; Vergote & Aubert, 1972). However, the third dimension – corresponding to how engaged God is – emerges frequently as well, both in factor analyses (Bader et al., 2010; Cassese & Holman, 2017; Froese & Bader, 2008, 2010) and in terms of its theoretical and predictive significance (Froese & Bader, 2007, 2008, 2010).

Consistent with this focus, questions corresponding to God-images falling along these three latent dimensions have come to predominate in survey research on religious beliefs. In particular, questions tapping perceptions of God as more or less loving, wrathful, and engaged with the humanity form the core of the God-concept batteries included in large-scale representative surveys like the General Social Survey and – more recently – the Baylor Religion Surveys (Bader et al., 2010; Bader & Froese, 2005; Froese & Bader, 2007; Greeley, 1995; Roof & Roof, 1984). Indeed, as we shall discuss at length below, the items we employ in our own analysis reflect criteria drawn from these core dimensions.

1.3 Recovering composite images of God: A latent-class approach

As noted above, much of the literature on individuals' conceptions of the divine attempts to summarize the structure of these conceptions utilizing factor models (e.g., Bader et al. 2010; Cassese and Holman 2017). As a data-reduction technique, factor analysis is a useful tool for assessing whether or not a lower number of unobserved factors can explain covariance among a set of observed variables. In other words, it allows researchers to determine whether various conceptions of the divine can be summarized using a single dimension of difference (say, positive versus negative) or multiple dimensions of difference (e.g., more versus less benevolent, more versus less judgmental).

However, knowing that variation among God-images can be characterized in terms of a relatively small number of psychological dimensions tells us nothing about how different composite images of the divine are assembled from combinations of the divine traits represented by these dimensions. To put it another way, factor-analytic techniques cannot be used to identify groups of individuals whose image of the divine combines different sets of characteristics – for example, a combination of being loving and engaged or a combination of being loving and indifferent to human affairs and actions. Absent techniques that can reliably sort individuals into such categorical groups, it is difficult to determine how the intersection of dimensions like divine love, judgmentalism, and engagement form holistic images of God.

To overcome the limits of the factor-analytic approach common in the literature on God-images, we turn instead to *latent class analysis* (LCA; Collins & Lanza, 2010; McCutcheon, 1987). LCA is a powerful form of latent structure analysis that reduces responses into a series of discrete, mutually-exclusive "classes," as opposed to the continua produced by traditional factor models (Lazarsfeld & Henry, 1968). In simpler terms, LCA identifies classes of respondents who possess similar patterns of responses on the observed variables. For example, it would allow the researcher to identify groups of individuals whose image of God features a combination of high benevolence and low judgmentalism, or perhaps a combination of both high benevolence and high judgmentalism.

To our knowledge, no extant studies have taken this approach to making sense of how individuals structure their images of the divine. To be sure, some studies have examined differences among individuals whose images of God combined various levels of benevolence, judgmentalism, and divine engagement with humanity (e.g., Froese & Bader, 2010; Potvin, 1977). For example, Potvin (1977) cross-classified respondents according to how much they saw God as "loving" and "punishing," generating groups that saw God as both loving and punishing, loving but not punishing, punishing both not loving, and neither loving nor punitive. More recently, Froese and Bader (2010) used a similar method to cross-classify respondents in terms of the degree to which they saw God as judgmental and engaged, producing God-image groups they labeled "authoritative" (judgmental and engaged), "benevolent" (engaged but not judgmental), "critical" (judgmental but not engaged), and

"distant" (neither judgmental nor engaged). In turn, membership in these categories had notable correlates. Froese and Bader (2010), for example, found that individuals who held an authoritative image of God were more likely to show high levels of religious practice and adopt a more literal orientation toward the validity of scripture.

While instructive, these studies are limited in an important respect: the God-image clusters they focused on were formed simply by dividing the sample into groups based on continuous dimensions extracted using factor analysis. Thus, in contrast to what LCA would reveal, the groups isolated in these analyses did not spontaneously emerge from the data, and it is not clear that the four composite images implied by each study are those that respondents "naturally" held. As such, we believe an LCA-based analysis has the potential to shed novel light on how different subsets of individuals spontaneously organize their images of the divine.

1.4 Overview of the study

In the analysis which follows, we subjected survey responses to a series of God-image items to a latent class analysis to uncover what composite images of God respondents tend to hold. As input, we drew on a range items covering the core God-concept dimensions that have emerged in prior work – namely, the extent to which God is seen as more or less benevolent, more or less judgmental, and more or less engaged with humanity. We treated this analysis as necessarily exploratory, and made no specific predictions about the classes that would emerge.

As we shall see, our analysis revealed five latent classes of respondents, corresponding to individuals with following composite images of God: (1) a poorly-defined and unengaged God, (2) a loving father who is not judgmental but who is engaged with humanity, (3) a nullity or nonentity, (4) a loving father who is neither judgmental nor engaged with humanity, and (5) a loving father who is also judgmental and engaged with humanity. Having extracted these classes, we then examine the ways in which probability of membership in these classes varies as a function of denomination, beliefs and behaviors, and key demographic characteristics. As with the LCA itself, we treat these analyses as largely exploratory, though we offer substantive predictions following class extraction where possible.

2 Data and measures

To explore how individuals think about the divine, we utilize the third wave of the Baylor Religion Survey (BRS), a nationally-representative sample of Americans collected during the fall of 2010 by Gallup. Compared to other surveys that field a limited sample of questions

regarding religious beliefs and attitudes, the BRS is notable for its comprehensive coverage of theological topics. As a result, it is uniquely suited to answering questions about God-images.

2.1 Aspects of the divine

We begin by isolating a core battery of items that describe different conceptions of God. The BRS contains an enormous number of survey questions germane to this subject. Based on both extant research and how the designers of the survey initially reported "images" of God (c.f. Bader et al., 2006), we restricted our various aspects of the divine to eleven items that seemed to capture a comprehensive menu of not only the positive and negative aspects of God, but God's relationship to the larger world – the latter being an important set of qualities that helps distinguish images of the divine among two large groups of respondents.

We begin with a list of eight adjectives – absolute, critical, father, punishing, just, wrathful, forgiving, and severe – that respondents were asked to judge on the basis of how well they described God. Responses to these items ranged from "not at all" (1), to "not very well" (2), to "somewhat well" (3), to "very well" (4). The mean responses to these items across the full sample are displayed in the first column of Table 1. On balance, respondents believe that God is an absolute, masculine entity that is both just and forgiving. Regarding the severity and criticalness of God, there is less consensus.

Table 1. Mean scores for input items

How well do the following	Full re	sponse set	
items describe God	(4 cate	egory)	
1. Absolute	3.30	[3.23,	3.37]
2. Critical	2.18	[2.11,	2.24]
3. Fatherly	3.31	[3.24,	3.37]
4. Punishing	2.32	[2.25,	2.38]
5. Just	3.35	[3.29,	3.41]
6. Wrathful	2.25	[2.18,	[2.32]
7. Forgiving	3.52	[3.46,	3.58]
8. Severe	2.08	[2.01,	2.15]
9. Involved in world	2.56	[2.50,	2.63]
10. Angered by human sin	2.73	[2.66,	2.79]
11. God's love never fails	3.37	[3.31,	3.43]

Source: Source: Baylor Religion Survey, Wave 3

Notes: Entries represent mean scores on each variable, with 95% confidence intervals appearing in brackets. Response options for items 1-8 include "not very well (1), not well (2), well (3), very well (4)"; responses to items 9-11 convey whether a respondent "disagrees strongly (1), disagrees (2), agrees (3), or agrees strongly (4)" with prompt.

To these eight items we added three more questions that probe God's agency and involvement, capacity for love, and concern about human sin. Thus, while the first block of items reflected qualities that describe the nature of God, these final three items all constitute beliefs about the relationship between God and creation. Because there are different permutations of these questions that account for the relationship between God and the respondent, we select only those items that tap into perceptions of God's general behavior. In other words, we distinguish between global attitudes about the divine and individuals' personal relationships with God (which may tap into self-referential identification with the divine, as opposed to simple images of it – a distinction that, while granular, is important). Individuals are asked whether they "strongly disagree" (1), "disagree" (2), "agree" (3), or "strongly agree" (4) with the following prompts: "God is directly involved in world affairs," "God is angered by sin," and "God's love never fails." Table 1 indicates that, while most individuals convey that God's love will never fail, they are less consistent about the extent to which God is bothered by sin and involved in the world.³

2.2 Religiosity – Belonging, Behavior and Belief

To assess the theological foundations of images of the divine, we consider a variety of related constructs. Joining Durkheim's (1915) anthropological and Weber's (1930 / 2013) ideological emphases together, the modern study of "religiosity" often separates belonging (e.g., denomination affiliation), from behaviors in service of religious preferences (e.g., frequency of prayer or church attendance), from beliefs about theological ideas (e.g., inerrancy). In light of these distinctions, we separate identification with various religious traditions from performative aspects of religion and the particular beliefs that encompass theological systems.

In the BRS, individuals were asked to convey whether they identified with a particular religious tradition or no religion at all. From this detailed list of denominational affiliations, we categorized individuals into a seven-category typology similar to that used in other recent studies (e.g., Claassen, 2015). Here, we begin our typology of denominational affiliation with all individuals who professed affiliation with some Protestant denomination. From this group, we parceled out persons who conveyed that the labels "evangelical" or "born-again" described them "well" or "very well." These persons were classified as *Evangelicals*, coded 1, and otherwise 0.4 From the remaining group of Protestants, we

³ For a simple overview of how these items correspond, Figure A1 in the Appendix plots a correlation matrix that illustrates the strength and direction of the relationship among these 11 items.

⁴ Two caveats are warranted. First, we decline to code Evangelicals only as *white* persons in order to see whether or not race has a more general effect on images of the divine. Second, this coding

separated *Black Protestants* from non-black *mainline Protestants*, coded 1 for inclusion in that group and otherwise 0. Individuals who identified as *Catholic* or *Jewish* were coded 1 for affiliating with either religious tradition and 0 otherwise. Individuals who conveyed a religious tradition other than these groups were combined into a separate category, *Other*, while those who did not profess religious affiliation were categorized as *None*.

Finally, although not a denominational affiliation, we also control for whether an individual self-identifies as "charismatic." Of the various theological labels with which individuals could identify in the BRS, this label was unique to the sorts of other traditional or orthodox religious markers for which we control below. As such, individuals who conveyed that the label *charismatic* described them "well" or "very well" were coded 1 and otherwise 0.

Moving beyond affiliation, the performative aspects of religious behavior are operationalized by combining three religious behaviors, an approach we prefer because it provides a more comprehensive behavioral portrait of an individual's spiritual life. First, individuals were asked how often they attended services at a place of worship – never, less than once a year, several times a year, once a month, several time a month, about weekly, weekly, or several times a week. Second, outside of church attendance, respondents were asked how much time they spent reading scriptures – never, less than once a year, once or twice a year, several times a year, once a month, several times a month, weekly, or several times a week. Finally, individuals were asked how much time they spend praying outside of religious services – never, certain occasions, once a week, a few times a week, once a day, or several times a day. Unsurprisingly, these variables are all interrelated. Principal-factors analysis of prayer, reading, and attendance suggests the existence of a single factor with robust loadings in excess of 0.70 ($\lambda = 1.68$). Given that the alpha coefficient for the index is 0.79, we combine these items into a composite – which we label performance – and rescale it into deciles, where higher values convey that an individual engages in such religious behaviors.

Next, perhaps the most well-known marker of theological traditionalism is an individual's perspective of the authorship and veracity of holy scriptures. The rub with this sort of item, however, is that it runs the risk of conflating orthodoxy with fundamentalism. Accordingly, given the plethora of items available to us in the BRS, we take a more robust approach to operationalizing theological attitudes. First, we account for attitudes regarding *inerrancy*. Individuals were asked which one statement came closest to their beliefs about the

scheme differs somewhat from the "RELTRAD" approach (Steensland et al. 2000), which combines various elements of belief, behavior, and identification to separate Evangelicals from the more general Protestant tradition. We prefer this coding in order to separately model the effects of belief and behavior.

⁵ With the caveat that self-monitoring pressures likely inflate the reporting of these behaviors (e.g. Brenner 2011; Cox, Jones, and Navarro-Rivera 2014). We are not necessarily concerned with *accuracy*, however, insofar as we might expect there to be systematic differences in how individuals who express these behaviors think about God. That is, we expect that this variable probably encompasses the *intensity* of religious aspiration.

Bible: (1) the Bible is an ancient book of history and legends; (2) the Bible contains some human error; (3) the Bible is perfectly true, but it should not be taken literally, word-forword and needs interpreting; or, (4) the Bible means exactly what it says; it should be taken literally, word-for-word, on all subjects. In addition to this item, the BRS also asked individuals about a number of figures and objects that exist in religious scriptures and whether or not it was likely that these things were "real." Specifically, respondents were asked whether the devil (Satan), heaven, hell, purgatory, Armageddon, angels, and demons exist. Responses ranged from "absolutely not" (1), to "probably not" (2), to "probably" (3), to "absolutely" (4).

We then subjected these eight items to a principal-factors analysis in which a single factor emerged that included seven of the eight items with factor loadings ranging from 0.60 to 0.90 (purgatory failed to load adequately onto this factor; r = 0.40). We rescale this factor to range from 0 to 1 and interpret it as a composite of biblical literalism – higher values convey that individuals hold the bible and its various actors in high, literal esteem (realness), while lower values convey that these are not "true" or "real" concepts. The alpha coefficient for this index was 0.92, which reflects robust levels of internal consistency among items.

Finally, separate from this construct, we examine belief regarding religious inclusivity, embodied by the concept of *universalism*, or the idea that all religions are equally true. The BRS asked respondents whether they agreed or disagreed with the following two statements: 1) all religions in the world are equally true; and, 2) no matter what religion people call themselves, they all worship the same God. These two items are highly correlated (r=0.58) and reflect ideas regarding whether religions are fundamentally equal regarding their divine truth. We combine these items into an additive index that ranges from 0 to 1, where higher values convey greater agreement with the idea that all people worship a common God.

2.3 Psychological variables

Although the BRS did not include items that captured traditional personality traits (e.g., the Big Five), we do account for the extent to which individuals are trusting or open to experiences. Using a battery of items that asks whether respondents trust different figures "not at all" (1), "only a little" (2), "some" (3), or "a lot" (4), we construct a composite of social trust. A principal factors analysis of trust in "people in general," "your neighbors," "your coworkers," and "strangers" reveals that these items are strongly interrelated ($\lambda = 1.88$; loadings on all factors are greater than 0.65). We rescale the resulting factor scores to range from 0 "not trusting" to 1 "completely trusting."

Next, we construct a measure of the extent to which individuals perceive they are in control of their own lives. Ostensibly, individuals who believe that they control their future could be less likely to perceive the need for a divine God. Two items comprise this index.

Individuals are asked the extent to which they disagree or agreed with: (1) My future is in my hands; and, (2) I am in control of my own fate and fortune. The Pearson's correlation between the two items is high (r = 0.64), so we average scores on both questions together and rescale the item to range from 0, which we interpret as a "lack of perceived control," to 1 or "full control over one's life."

2.4 Demographics

In addition to the items detailed above, we also consider a standard set of demographics. *Age* reflects the numeric age of the individual in years. Racial identification as either *white* or *black* is coded 1 and otherwise 0. Gender is coded such that individuals identifying as *male* are coded 1 and otherwise 0. *Income* is coded as an ordinal, seven-category scale ranging from 0 "less than \$10,000" to 1 "more than \$150,000."

3 Results

As noted previously, much of existing literature on how images of God are psychologically structured relies on factor-analytic methods, and it typically recovers dimensions of covariation among God-concepts reflecting God's benevolence, God's wrath, and God's level of engagement with humanity. Though our LCA-based approach focuses more on recovering latent categories of individuals with distinct God-concepts, we begin our examination of the BRS with an exploratory factor analysis to get a preliminary feel for the dimensionality of our respondents' images of God.

Specifically, we subjected the 11 God-image items to a principal-factors analysis with oblimin rotation, which allows the resulting factors to be correlated. This analysis suggests that two separable dimensions exist regarding how individuals think about the divine. Figure 1 illustrates that "negative" or judgmental qualities of God (e.g., wrathful, critical) are effectively orthogonal to "positive" or loving qualities (e.g., fatherly, forgiving). In general, this confirms the impression left by earlier factor-analytic work (e.g., Roberts, 1989).

⁶ Two items that did not load strongly on either factor—regarding how involved God is and how angered by sin God is—correspond roughly to the third dimension that predominates in factor analyses of God-concepts, i.e., God's level of engagement with humanity. However, these items do not appear to form a strong enough empirical unit to emerge as a third factor in our data.

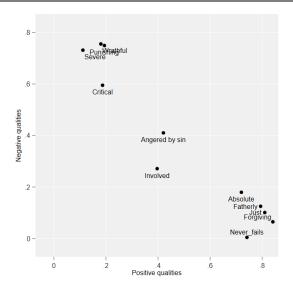


Figure 1. Factor structure of attitudes toward the divine

Notes: Panel A conveys plot of variable loadings for a two-factor solution after principle factors analysis with oblimin rotation. Factor 1 conveys "positive aspects of God" ($\lambda=4.20$); Factor 2 conveys "negative aspects of God" ($\lambda=1.65$). Factor scores were rescaled to range from 0 to 1, and then plotted against each other in Panel B. Parameter estimates with loadings available in the Appendix, Table A6.

However, because the two factors correlate weakly at r=0.05, it is difficult to parse how individuals might hold varying *combinations* of these images. Because we are interested in whether it is possible to determine a categorical typology of divine images, we instead turn to latent class analysis (LCA), which Lubke and Neale (2008) argue is superior for classifying individual response patterns in order to generate a typology.⁷

3.1 A latent class approach to images of God

As discussed above, latent class analysis extracts mutually-exclusive "classes" (rather than latent dimensions, as in factor analysis) from a set of observed item responses. LCA finds classes of respondents who provide similar response patterns across input items. More technically, finding an LCA solution requires that the observed items be "conditionally independent" once class membership is accounted for, which conveys that the relationship

⁷ LCA has been used to classify everything from risk associated with genetic disorders (Pickles et al. 1995) to ideological and moral orientations (e.g. Feldman and Johnston 2014; Weber and Federico 2013).

between the observed variables is explained by the latent variable's classes (Collins & Lanza, 2010; McCutcheon 1987). Because individuals vary with respect to their scores on the observed variables, LCA involves calculating a vector of estimated class membership probabilities that correspond to the individual (Collins & Lanza, 2010). In turn, the prevalence of the respective latent classes comprises the average of respondent-specific posterior probabilities of class membership (Hagenaars and McCutcheon 2002; Muthén 2008).

We specify an LCA model using the LCA Stata Plugin package developed by Penn State's Methodology Center (Lanza et al., 2015). Although mixture models allow for analysis of ordinal or continuous observed variables, we utilize dichotomous input items based on our battery of 11 aspects of the divine. We do this for two reasons. First, computational efficiency increases significantly. Second, the items are measured on four-point scales without a true "neutral" midpoint, which allows us to dichotomize each variable without losing information about the effective valence of responses. For example, individuals either perceive that God either is or is not "wrathful."

LCA requires the researcher to ascertain the appropriate number of classes that describes the input data. Traditionally, this process involves an iterative series of tests where a k-class model is compared to a k-1 model (Muthén, 2002). When a k-class model constitutes an improvement in fit over the k-1 model, we then expand the number of classes retained to k+1 and compare the results of that configuration of classes with the k-class model. Although scholars debate the appropriate criteria for a terminal model (Tein, Coxe, & Cham, 2013), it is generally accepted that the LCA is fully saturated when the k+1 solution no longer improves model fit.

Given that the initial factor analysis revealed the existence of separable factors, we begin by comparing a three class solution to a naïve, two-class model – which would likely convey that individuals either view God wholly in terms of negative or positive qualities. As Table 2 indicates, a three-class solution produces significant gains in fit over the two class model according to the Bayesian Information Criterion (BIC; values for this statistic closer to zero indicate a better-fitting model). We continue this process up to a seven-class solution. The BIC values reach their nadir for the five-class solution (BIC= 1187.29). Beyond the five-class solution, the BIC increases at the expense of a decrease in entropy, the combination of which implies that the model is overfitted. We confirmed that a five-class solution is preferable over a four-class solution by computing a bootstrapped likelihood ratio test. This

⁸ The mean scores across these items are presented in Table Ax in the Appendix.

⁹ While there is general agreement that the Akaike Information Criterion (AIC) is less suited as a selection method involving fit, there is some debate within the literature regarding preferable selection criteria. The Bayes Information Criterion (BIC) is the most ubiquitous fit metric; the Lo-Mendell-Rubin (LMR) and boostrap likelihood-ratio test are reasonable alternatives, as well (Tein, Coxe, and Cham 2013). It is important to note, however, that theory plays no small role in adjudicating class solution size.

analysis calculates a test statistic to ascertain whether the expansion to a k+1 class solution is warranted. The results indicate that a five-class solution is ideal (e(p)<0.01). ¹⁰

Table 2. Latent class model comparisons

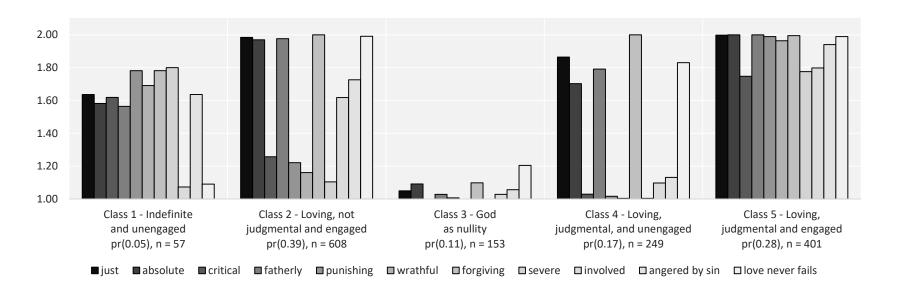
Classes	Degrees of freedom	G^2	Entropy	BIC
2	2024	2988.604	0.946	3156.312
3	2012	1323.390	0.897	1578.598
4	2000	893.326	0.917	1236.034
5	1988	757.081	0.815	1187.289
6	1976	707.336	0.765	1225.044
7	1964	681.755	0.791	1286.963

Notes: Goodness of fit test statistics related to class solution. On balance, the lowest Bayesian Information Criterion (BIC) score indicates best-fitting model. Table A2 (supplementary materials) further illustrates differences between 4- and 5-class solutions by juxtaposing composition of class membership. Between goodness of fit criteria and the substantive interpretation of class composition, the five-class solution is retained (highlighted in grey).

To facilitate the substantive interpretability of the various classes, Figure 2 depicts information describing each class, including a summary label that reflects the respective image of God, class size (in respondents), and the posterior probability of inclusion in each group. We also plot each class' mean score on across the various input items (recall that higher values convey that respondents associated that quality with God). The input items are distributed beneath the x-axis, and correspond to the respective bar in left-to-right order.

¹⁰ As a further validity check, Table A3 in the Appendix juxtaposes how a four- and five-class solution shift the composition of individuals across classes. We find that the four-class solution loses important theoretical variance among respondents by binning together individuals who see differences in God's agency.

Figure 2. Mean scores on 11 input items by latent class



Notes: Values on input items have been rescaled to range from 0 (not characteristic of God) to 1 (characteristic of God).

Respondents in Class 1 view God as both indefinite and unengaged, scoring mixed evaluations across the majority of input items, with the exception of "involvement" and "love," which are both very low. Reflective of its small size, the probability of inclusion in this group is roughly five percent. These individuals differ from those in Class 3, who perceive God as effectively nonexistent or as a "nullity." Across each input item, the scores for members in Class 3 hover very near "does not describe God." The group is modestly sized, and the probability of inclusion is roughly 10 percent.

Classes 2 and 4 share similarities regarding viewing God as loving, fatherly, and just (i.e., "positive") but not harshly judgmental. However, they deviate significantly with respect to how respondents perceive God's engagement – his involvement in the world and his concern about human sin. Whereas Class 2 perceives that God is engaged with humanity, individuals within Class 4 do not. These are significant differences, emblematic of the tension between what theologians might describe as classic orthodoxy (Class 2) and more a theology that sees God as less engaged and concerned with human morality (Class 4). Class 2 is the largest group by roughly 30 percent (n = 608); the average respondent has about a 40 percent chance of being classified into that group. Class 4 contains 249 respondents, with a probability of class membership equal to about 28 percent. Insofar as both of these classes imply a nonjudgmental God who is assumed to be loving, individuals in Class 2 and Class 4 have some rough similarities with those holding Froese and Bader's (2010) "benevolent" and "distant" images of God, respectively.

Finally, Class 5 comprises people who simultaneously see God as loving and judgmental. In addition, they see God as being actively engaged with humanity and concerned about human sin. Indicative of the divine image of God found throughout the Pentateuch, this modest group contains about 400 respondents. The probability of inclusion here is about 28 percent. Individuals in this class correspond roughly to those who hold Froese and Bader's (2010) "authoritative" image of God – i.e., a deity who is both judgmental and engaged but assumed to be loving as well.

To what extent does this five-class solution overlay onto the initial factor analysis that was emblematic of approach used in previous research? As a way of underscoring the value of an LCA approach, Figure 3 illustrates a series of rug plots that correspond to the "positive" and "negative" images of God across each class (i.e., it plots the two key factors against the LCA group). There is significant variation in the configuration of these responses across classes. While Classes 3 and 5 are sensible within the two-factor solution, Classes 1, 2 and 4 would be difficult to distinguish from each other given only the factor analysis because factor analysis provides no clean "solution" to rendering cutoff points that would bin respondents into particular groups. Those respondents in Class 1 could conceivably fall into a variety of other categories if not for the latent-class solution imposing structure on them. Furthermore, Classes 2 and 4 would be impossible to distinguish given that, while these individuals perceive that God is loving and low on judgment, the respondents in these groups

differ markedly in the extent to which the perceive that God is involved in the world and is concerned about human moral lapses. Those are substantive differences in respondents' images of the divine that would have been otherwise obscured.

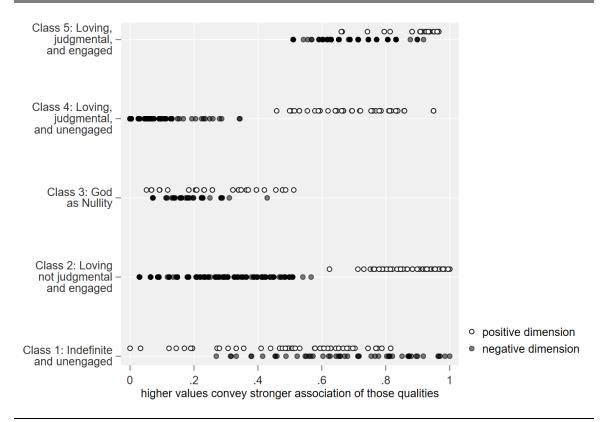


Figure 3. Comparing an LCA solution regarding images of the divine to a factor model

Notes: Classes are arrayed on y-axis; factor scores presented in Figure 1 are arrayed on the x-axis. Respondents' score on given factor have been rescaled to range from 0 to 1.

3.2 Images of God and religiosity

Having established a typology for understanding how individuals view the divine, we turn briefly to analyzing how these classes overlay onto traditional forms of religious preferences. Figure 4 illustrates the denominational composition of each class. In the case of individuals who perceive God to be indefinite and uninvolved (Class 1), there is some heterogeneity among affiliates. Most respondents in this category identify as Protestants. In contrast, individuals who believe that God is a nullity (Class 3) are most likely to be individuals who communicated no formal ties to a denominational family. There are also a smattering of other religious traditions in this group, with Protestants slightly edging out Catholics.

For the three largest classes, the denominational makeup varies tremendously. Class 2, consisting of people who perceive a loving God who is engaged but not overwhelmingly judgmental, includes a mixed group of Protestants, Catholics, and Evangelicals – perhaps not unsurprising if this image of God is effectively the traditional, if not wholly orthodox, representation of the divine. Class 4 is unique in that evangelicals comprise but a small share of its members. Instead, both mainline Protestants and Catholics comprise the most populous denominations represented in that group. Given that God's engagement with human affairs and concern with human sin is a core feature of evangelicalism, this image of God would run counter to common evangelical understandings of the divine. Finally, Class 5 is overwhelmingly evangelical. Given that God is portrayed as a judgmental, yet loving father who is engaged with world and concerned about human moral lapses, this sort of image would reflect the stereotypical representation of God among members of that tradition.

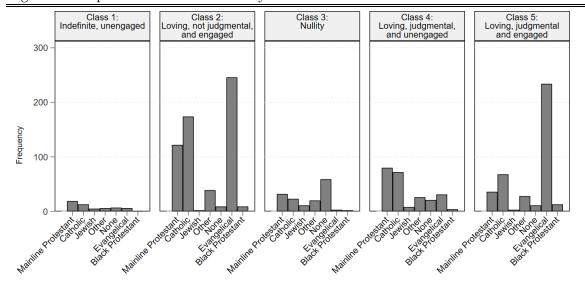


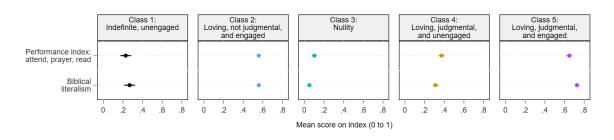
Figure 4. Composition of latent classes by traditional denominational affiliation

Notes: Bars convey unweighted frequency of denominational affiliation by class.

Next, to gain a fuller descriptive portrait of how these classes vary with respect to traditional religious markers, we plot the extent to which religious performance or practice and biblical literalism vary across this typology of divine images in Figure 5. Predictably, Classes 1 and 3 – the two least "religious" groups – score low on these items. Members of Class 4, or those individuals who perceive a loving God without the divine moral engagement and/or judgment that accompanies Classes 2 and 5, report more modest expressive behaviors and lower scores on biblical literalism. This makes intuitive sense given that a literal interpretation of the Old Testament God, shared by most of the major monotheistic religious

traditions for which we have data, would depict a divine entity who is wrathful and jealous of his creation. Individuals who reject literalism, then, are more likely to perceive these passages as less meaningful to their conceptualization of God. Finally, Classes 2 and 5 score high on both markers of religious expression. In particular, Class 5 is comprised of people who are extremely literal in their interpretation of holy scriptures, which likely explains their aggregation of judgment, lovingness, and engagement together.

Figure 5. Expressive religious behaviors and biblical literalism across images of God typology



Notes: Both performance and biblical literalism indices have been rescaled to range from 0 (minimum) to 1 (maximum). Point estimates convey unweighted group means; solid bands convey 90 and 95 percent confidence intervals around point estimates.

3.3 The correlates of images of the divine

Having looked at how religious preferences relate our images of the divine, we next conduct a multivariate analysis to see how well a range of relevant independent variables predict respondents' membership in the divine-image classes. Using multinomial logistic regression, we model class membership as a function of three sets of respondent variables: denominational affiliation, religious practice and beliefs, and numerous basic demographic characteristics. For purposes of presentation, we opt for a visual depiction of the marginal effect estimates associated with transitioning from minimum to maximum values on each covariate. These point estimates are presented graphically, with their associated confidence intervals. Estimates that overlap with the dotted vertical line are indistinguishable from 0 and fail to reach statistical significance according to conventional criteria.

Beginning with Class 1, among the various denominational affiliations, identification as Black Protestant or Jewish are the only religious-tradition indicators to relate appreciable on class membership. Individuals with these affiliations are about 17 and 10 percentage points more likely to perceive God as indeterminate and unengaged, respectively. Older individuals are also somewhat more likely to fall into this God-image class, while more well-educated people are less likely to hold this image of God.

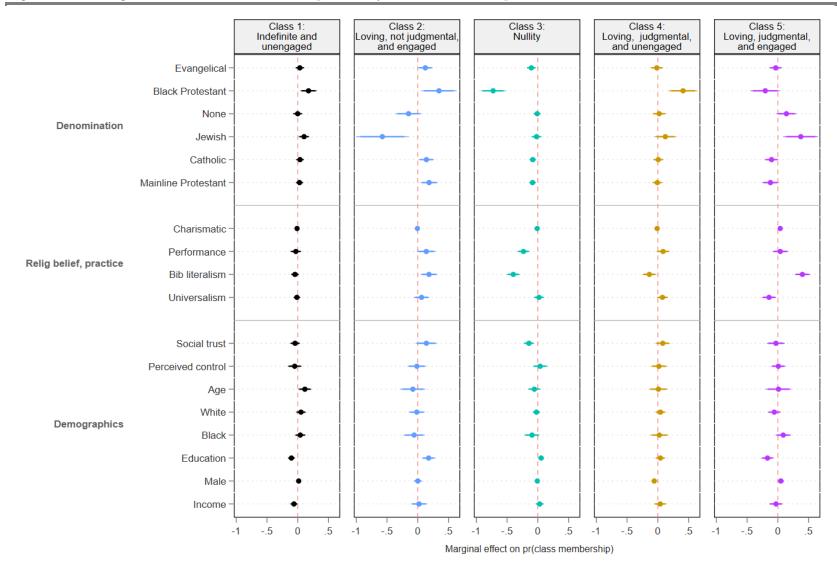
Among members of Class 2, there are a number of covariates that related significantly to the probability of class membership. Both Evangelicals (12 percentage points) and Black Protestants (34 percentage points) are more likely to perceive that God is a loving father who is involved and engaged with humanity. Jewish respondents are much less likely to be sorted into Class 2; these individuals are about 58 percentage points less likely than others to be classified into this group. Identifying as mainline Protestant increases the probability of class inclusion by about 18 points over persons who identified as "other faith." Both religious performance/practice and biblical literalism are significantly and positively related to the probability of being included in this class by 14 and 18 points, respectively (although the performance index is only significant at the 90% confidence level). Finally, education is positively and robustly related to holding this image of God; at maximum levels of education, respondents are about 18 points more likely to be included in this class relative to persons with minimal levels of education.

Turning to Class 3 (God as a nullity), affiliation with any religious tradition is associated with a reduced probability that a person old this image of God. Evangelicals, Catholics, and mainline Protestants all share about a 10 percentage point reduction in the likelihood of inclusion in this class, while Black Protestants are *extremely* unlikely to perceive God as a nullity. Individuals who indicate that they read, pray, and attend church frequently are much less likely to be classified into Class 3, as are those who endorse biblical literalism. Moreover, persons who are very trusting are less likely than persons with low levels of trust to see God as a nullity. Put another way, persons with cynical outlooks toward social interactions appear less likely to perceive that the divine is a tangible, real entity.

Shifting to Class 4, while Black Protestants are about 41 percentage points more likely to see God as a loving father who is neither wrathful nor engaged, affiliation with the other traditional denominations is statistically unrelated to the probability of membership in this class. There is also some evidence that individuals scoring higher on biblical literalism are less likely to be included in Class 4. Given that this image of God is characterized by a loving God who is not concerned by sin, the direction of this relationship is intuitive in light of scriptural emphasis on divine anger about human moral failings (Froese & Bader, 2007, 2008). Finally, men are somewhat less likely to be included in this group than women.

¹¹ In part, the singular nature of African Americans' conception of God as loving agent is likely a function of different perspectives regarding the gospel itself – whereas white Christians approach the gospel in "evangelical" terms, black Christians possess a uniquely *social* understanding of the gospel. Further, the historical legacy of institutionalized racism cannot be disconnected from conceptualizations of God, who is viewed – in no small part, as a restorer and helper. For an excellent review of differences between white and black Christians, see Shelton and Emerson (2012)

Figure 5. The marginal effect of covariates on the probability of class membership



Notes: Point estimates convey effect of moving from minimum to maximum value on each respective factor on probability of class membership (x-axis). Thus, y-axis conveys literal change in predicted probability of class membership, holding other covariates at observed values. Solid bands convey 95% confidence intervals; bands that cross value 0 are indistinguishable from 0.

Finally, regarding Class 5, denominational affiliation as Jewish exerts a large, significant effect on class membership. Relative persons with identify with "other" religious traditions, Jewish respondents are much more likely to perceive that God is simultaneously judgmental and loving – which fits the depiction of God in the scriptures most central to Judaism (i.e., the Pentateuch). If we relax our standards of significance to the 90 percent level, then Black Protestants, Non-black Protestants, and Catholics are all modestly less likely to hold this vision of the divine.

Curiously, evangelical identity does not predict this image of the divine. Recalling that evangelicals were a large portion of respondents included in this class, this non-finding seems strange on its face. However, digging deeper, there may be textual reasons that explain this discrepancy. For these persons, identity may matters less for their image of God in relation to their literal reading of the scriptures and other worldviews associated with evangelicalism. Indeed, individuals who possess maximum levels of biblical literalism are 40 points more likely to be sorted into this category than individuals with low levels of biblical literalism; those who reject religious universalism are also less likely to fall into this class (Bader & Froese, 2005; Froese & Bader, 2008). Finally, while the covariates reflecting personality traits do not related discernably to membership in this class, men and persons with lower levels of education are both more likely to see God as loving, judgmental, and engaged.

4 Discussion and conclusion

The list of philosophers and theologians who have sought to elucidate the nature of the godhead is too long to list. For their part, social scientists have used the tools of public-opinion research to map out the set of God-images that everyday people hold. Perhaps more importantly, they have made a concerted effort to look at how individuals structure their images of God. As noted above, most of these efforts have been factor-analytic in nature, and they have isolated a general set of dimensions along which God-images vary, i.e., the extent to which God is seen as loving, judgmental, engaged, and so on. Our primary goal in this paper was to leverage a more exacting and appropriate analytical technique – latent class analysis – to ascertain how different dimensions of the divine image combine with one another to form composite images of God in the minds of individuals.

To this end, our latent class analysis warrants three conclusions and two caveats. First, on balance, it is clear that a majority of Americans possess modestly well-formed views of God. The proportion of persons who perceive an indeterminate or nonexistent God is much lower than the proportion who recognize a God with some latent combination of well-defined traits. Apart from their denominational affiliations, the overwhelming majority of respondents analyzed here fell into latent classes implying the existence of a distinct God with reasonably meaningful characteristics.

Second, all three classes that implied the existence of a well-defined God (i.e., classes 2, 4 and 5 in our solution) shared the common notion of a loving God. This pattern suggests that the psychological starting point for robust conceptions of God among Americans – that is, images that go beyond the indeterminacy characteristic of Classes 1 and 3 – is a baseline conception of God as a loving entity. Put another way, we find little evidence that respondents perceived God to be *only* an angry entity. Instead, much of the variation among the three classes that imply a robust God revolves around how God's tendencies toward judgment and engagement with humanity *intersect* with love. In this respect, our results reinforce conclusions reached by studies of composite God-images that relied on different methods (e.g., Froese & Bader, 2008, 2010), which suggest that clusters of individuals who vary in the extent to which they attribute the traits of anger and involvement to God nevertheless see a common denominator in God's love for his creation.

Moreover, while a nontrivial proportion of persons perceive that the divine encompasses both loving and judgmental elements, the largest share of persons with robust conceptions of God lack the judgmental component. Among these individuals, variation between the latent images of they hold hinges on the extent to which God is actively engaged with humanity and concerned about human moral failings. Thus, our analysis of the divine image suggests that—at least among Americans—judgmentalism is presently minimized in most people's God-concepts.

Third, our analysis suggests a few interesting correspondences between individuals' images of God, their denominational affiliation, their level of religious practice, and their understanding of scripture. Respondents from a mix of religious traditions, including Catholics, mainline Protestants, and Evangelicals, perceive that God is loving and engaged with the human world (class 2). Conversely, we find little evidence that affiliation with those traditions relates to the probability of membership in classes 4 and 5, which respectively imply a loving, nonjudgmental, and unengaged God and a God that is simultaneously loving, judgmental, and engaged (although Catholic and mainline Protestants are a bit less likely to hold their latter image of God). In addition, performative religious practice does not reliably predict class inclusion, perhaps because substantive images of God have less to do with rote religious behavior and more to do with the substance of the theology an individual adheres to. In this vein, biblical literalism is significantly associated with the likelihood of inclusion in classes 2 and 5, which respectively imply a God who is loving, engaged, but not judgmental and a God who is loving, judgment, and engaged. These are both images of God readily supplied by traditional (and to some extent literal) readings of Judeo-Christian scripture (Froese & Bader, 2007, 2008).

Finally, we conclude with a few caveats regarding our findings. First, the results presented here largely involve a specific, Westernized view of the divine. Put another way, we are working with the beliefs of individuals who largely share a common socio-cultural framework dominated by Christian and Jewish conceptions of the godhead. Although this is

hardly surprising given that our data were provided by American respondents, it is possible that the exact set of classes, their thematic content, and their demographic composition may shift if replicated in non-American samples or samples including a larger proportion of persons who practice faiths other than some variant of Christianity or Judaism (for broader discussions, see Heinrich, Heine, & Norenzayan, 2010; Norenzayan, 2013). For example, our sample is not only short on who those who practice Judaism, it is almost completely lacking in its coverage of persons who practice humanity's third major monotheistic faith, i.e., Islam. Similarly, our sample contains few individuals from globally-significant religious traditions whose concept of the divine varies considerably from those of the major monotheistic faiths, e.g., Buddhism and Hinduism (Norenzayan et al., 2014; Stark, 2001). Future studies – with more religiously-diverse samples – will be needed to address this issue.

Second, we lack questions that tap into the gendered nature of the divine beyond the idea that it is "fatherly." Given that recent work finds that the perceived gender of divine authority has important implications for both religious and political attitudes (e.g., Cassese & Holman, 2017; Greeley, 1995; Whitehead, 2012, 2014), future studies would do well to include additional items that would allow for exploration regarding whether some individuals view God in terms of feminine or non-gendered pronouns. In particular, it would be interesting to explore of the perceived gender of God covaries with the adherence to one of the latent images of the divine we uncover in our analysis.

These shortcomings aside, however, we believe that our latent-class approach offers a new, exciting way of building on previous studies of how individuals conceive of the divine and how they psychologically structure their conceptions of the divine. Perhaps most importantly, our findings suggest that individuals may impose not only a *dimensional* structure on images of the divine, but a *categorical* one as well. Thus, to fully understand how everyday people conceptualize God, we must understand not only the generalized traits individuals attribute to the deity – i.e., how loving, judgmental, or engaged God is thought to be – but how particular combinations of divine traits are 'naturally' assembled into composite wholes in the minds of individuals.

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Appendix

Table A1. Descriptive statistics associated with primary covariates of interest

obs mean devi min max Latent divine class 1,468 3.22 1.34 1 5 Evangelical 1,468 0.35 0.48 0 1 Black Protestant 1,468 0.02 0.15 0 1 None 1,468 0.07 0.26 0 1 Jewish 1,468 0.02 0.14 0 1 Catholic 1,468 0.24 0.43 0 1 Mainline protestant 1,468 0.19 0.40 0 1 Charismatic 1,468 0.14 0.35 0 1 Performance 1,455 0.49 0.31 0 1 Biblical literalism 1,382 0.49 0.32 0 1
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Black Protestant 1,468 0.02 0.15 0 1 None 1,468 0.07 0.26 0 1 Jewish 1,468 0.02 0.14 0 1 Catholic 1,468 0.24 0.43 0 1 Mainline protestant 1,468 0.19 0.40 0 1 Charismatic 1,468 0.14 0.35 0 1 Performance 1,455 0.49 0.31 0 1
None 1,468 0.07 0.26 0 1 Jewish 1,468 0.02 0.14 0 1 Catholic 1,468 0.24 0.43 0 1 Mainline protestant 1,468 0.19 0.40 0 1 Charismatic 1,468 0.14 0.35 0 1 Performance 1,455 0.49 0.31 0 1
Jewish 1,468 0.02 0.14 0 1 Catholic 1,468 0.24 0.43 0 1 Mainline protestant 1,468 0.19 0.40 0 1 Charismatic 1,468 0.14 0.35 0 1 Performance 1,455 0.49 0.31 0 1
Catholic 1,468 0.24 0.43 0 1 Mainline protestant 1,468 0.19 0.40 0 1 Charismatic 1,468 0.14 0.35 0 1 Performance 1,455 0.49 0.31 0 1
Mainline protestant 1,468 0.19 0.40 0 1 Charismatic 1,468 0.14 0.35 0 1 Performance 1,455 0.49 0.31 0 1
Charismatic 1,468 0.14 0.35 0 1 Performance 1,455 0.49 0.31 0 1
Performance 1,455 0.49 0.31 0 1
,
Biblical literalism $1,382$ 0.49 0.32 0 1
Universalism 1,466 0.37 0.29 0 1
Trust scale $1,335$ 0.63 0.20 0 1
Control index 1,446 0.62 0.22 0 1
Age 1,432 0.55 0.17 0 1
White 1,468 0.83 0.38 0 1
Black 1,468 0.10 0.30 0 1
Education 1,437 0.54 0.32 0 1
Male 1,468 0.45 0.50 0 1
Income 1,368 0.55 0.27 0 1

Notes: Entries represent unweighted frequencies in sample.

Table A2. Mean responses on input items after dichotomization

How w	vell do the following	Dichotomize	ed	
items o	describe God			
1.	Absolute	1.81	[1.78,	1.83]
2.	Critical	1.34	[1.31,	1.37]
3.	Fatherly	1.82	[1.79,	1.84]
4.	Punishing	1.40	[1.37,	1.43]
5.	Just	1.85	[1.82,	1.87]
6.	Wrathful	1.37	[1.34,	1.40]
7.	Forgiving	1.88	[1.86,	1.90]
8.	Severe	1.31	[1.28,	1.34]
9.	Involved in world	1.50	[1.47,	1.53]
10.	Angered by human s	sin 1.60	[1.57,	1.63]
11.	God's love never fail	s = 1.83	[1.80,	1.85]

Notes: Because each respective response set contains no neutral mid-point, it is simple to dichotomize responses into a two-category scheme, where the value 1 reflects disagreement with a statement and the value 2 reflects agreement with a statement.

Table A3. Comparison of latent group composition across four- and five-class models

		five-cla	five-class solution								
		1	2	3	4	5	Total				
	1	1	59	0	0	407	467				
four-class	2	3	552	0	226	0	781				
solution	3	0	0	154	31	0	185				
	4	52	0	0	1	0	53				
	Total	56	611	154	258	407	1,486				

Notes: Respondents allocated to classes on basis of latent class analysis with four and five class restrictions. Four-class model effectively combines classes "2" and "4" from five-class model together, though it also sorts some individuals from classes "2" and "5" together, as well. On balance, these differences are significant enough to warrant concern that a four-class solution is underspecified.

Figure A1. Correlation matrix of attitudes toward divine



Note: Entries represent Pearson's correlation coefficients; intensity of color covaries with strength of relationship between items.

Table A4. Mean values on input items by class membership

	absolute	critical	fatherl y	punishin g	just	wrathfu l	forgivin g	severe	involve d	angered by sin	love never
Class 1: indefinite and unengaged	1.58	1.62	1.56	1.78	1.64	1.69	1.78	1.80	1.07	1.64	1.09
Class 2: loving, not judgmental, and engaged	1.97	1.26	1.98	1.22	1.98	1.16	2.00	1.10	1.62	1.73	1.99
Class 3: god as nullity	1.09	1.00	1.03	1.01	1.05	1.00	1.10	1.00	1.03	1.06	1.20
Class 4: loving, judgmental, and unengaged	1.70	1.03	1.79	1.02	1.86	1.00	2.00	1.00	1.10	1.13	1.83
Class 5: loving, judgmental, and engaged	2.00	1.75	2.00	1.99	2.00	1.96	1.99	1.78	1.80	1.94	1.99

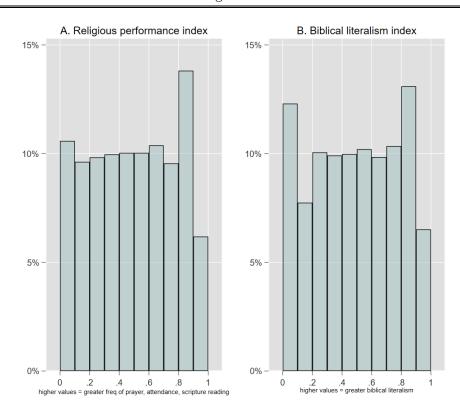
Notes: Values on input items range from 1 (min) to 2 (max). Entries convey unweighted mean scores for members of particular class and correspond to Figure 2.

Table A5. Denominational affiliation

	N	%
Mainline Protestant	289	20.03
Catholic	350	24.26
Jewish	29	2.01
Other	119	8.25
None	107	7.42
White evangelical	520	36.04
Black Protestant	29	2.01

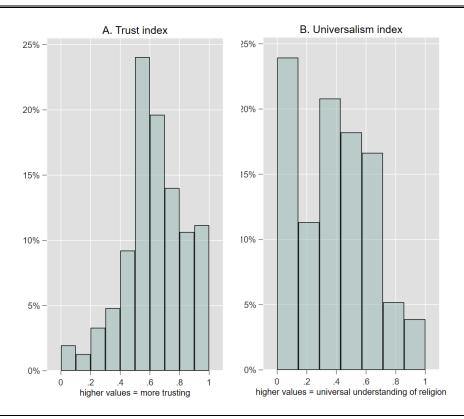
Notes: Entries represent unweighted frequencies contained in sample.

Figure A2. Distribution of factor scores for religious behavior and biblical literalism



Notes: (1) Religious performance scores computed via a principle factors analysis of three items, including frequency of prayer (Q11), church attendance (Q4), and reading scripture (Q10). Scores have been binned into deciles. (2) Biblical literalism factor model is derived from principal factors analysis with non-orthogonal (oblimin) rotation. Individuals asked to what extent they believed the following concepts were real – devil (Q23A), heaven (Q23B), hell (Q23C), purgatory (Q23D), Armageddon (Q23E), angels (Q23F), and demons (Q23G) – in addition to their belief in biblical inerrancy (Q17). All items except purgatory loaded onto single factor with loadings in excess of 0.60 ($\lambda = 4.55$).

Figure A3. Distribution of factor scores for trust and universalism indices



Notes: Trust index comprises items Q48A-Q48D; responses are subjected to principle factors analysis with oblimin rotation. All items load onto a common factor, with factor loadings in excess of 0.76 (λ = 2.49). Universalism index comprises two items: "religions are true" (Q15A) and "all worship same god" (Q15B). Items correlated at r = 0.55 (α : 0.76).

Table A6. Principal Factors Analysis of 11 input items

	Factor 1 $(\lambda =$	Factor 2 $(\lambda =$
	4.19)	1.65)
Absolute	0.72	-
Critical	-	0.60
Fatherly	0.80	-
Punishing	-	0.75
Just	0.81	-
Wrathful	-	0.76
Forgiving	0.84	-
Severe	-	0.73
Involved	-	-
Angered by sin	-	-
God never fails	0.74	-

Notes: Factors loadings smaller than 0.5 have been excluded. Factor 1 seems to capture stereotypically positive qualities of a masculine god. Factor 2 reflects negative, more violent qualities.

Table A7. Multinomial regression estimates mapping correlates of attitudes toward divine

	class 1		class 2		class 3		class 5	
	b	se	b	se	b	se	b	se
Evangelical	0.80	(0.90)	0.97**	(0.47)	-1.65**	(0.75)	0.66	(0.53)
Black Protestant	1.92	(1.17)	0.73	(0.83)	-2.04	(1.31)	1.18	(1.02)
None	0.03	(0.92)	-0.47	(0.63)	-0.16	(0.60)	0.62	(0.66)
Jewish	1.39	(0.99)	-2.40	(1.22)	-0.90	(0.84)	0.62	(0.89)
Catholic	0.63	(0.78)	0.55	(0.41)	-1.27**	(0.55)	-0.25	(0.50)
Mainline Protestant	0.50	(0.76)	0.71*	(0.42)	-1.27**	(0.55)	-0.47	(0.55)
Charismatic	0.45	(0.71)	0.53	(0.44)	1.15	(0.90)	0.83	(0.48)
Performance	-2.02**	(1.09)	0.49	(0.55)	-5.16**	(1.04)	0.40	(0.64)
Biblical literalism	-0.59	(0.97)	3.31**	(0.54)	-6.82**	(1.42)	5.24**	(0.67)
Universalism	-0.72	(0.68)	-0.39	(0.42)	-0.20	(0.83)	-1.11**	(0.52)
Trust index	-1.41*	(0.97)	0.32	(0.56)	-2.93**	(0.97)	-0.40	(0.63)
Perceived control	-1.39	(1.27)	-0.26	(0.59)	0.57	(1.17)	-0.29	(0.65)
Age	3.01**	(1.21)	-0.05	(0.72)	-0.47	(1.11)	0.42	(0.97)
White	-2.23**	(1.03)	-0.47	(0.36)	-1.12*	(0.58)	-0.98*	(0.47)
Black	-0.21	(0.85)	0.17	(0.43)	0.20	(0.70)	0.30	(0.53)
Education	-2.31**	(0.70)	-0.18	(0.40)	0.67	(0.57)	-1.33**	(0.49)
Male	0.65	(0.43)	0.46*	(0.23)	0.17	(0.37)	0.88**	(0.26)
Income	-1.12	(0.70)	-0.05	(0.48)	0.55	(0.73)	-0.51	(0.55)
Constant	0.65	(1.69)	-1.18	(0.75)	3.57**	(1.29)	-1.44	(1.01)
N	1,152							
χ^2	424.39							
Pseudo R ²	0.31							
Log likelihood	-1175.97							

Notes: Base (omitted) category is "class 4." Estimates convey log-odds ratios; standard errors in parentheses.*p<0.05, **p<0.05

Table A8. The marginal effect of covariates on the probability of class membership

	Class	1		Class 2	2		Class	3		Class	4		Class	5	
									р-			р-			р-
	,		р-	,		р-	,		valu	,		valu	,		valu
	b	s.e.	value	b	s.e.	value	b	s.e.	е	b	s.e.	е	b	s.e.	е
Evangelical	0.03	(0.04)	0.36	0.12	(0.06)	0.05	-0.10	(0.04)	0.01	-0.02	(0.05)	0.75	-0.04	(0.05)	0.51
Black	_	_	_												
Protestant	0.17	(0.07)	0.01	<i>0.34</i>	(0.15)	0.02	-0.73	(0.10)	0.00	0.41	(0.12)	0.00	-0.20	(0.12)	0.10
None	0.00	(0.04)	0.98	-0.15	(0.11)	0.17	-0.01	(0.03)	0.74	0.02	(0.06)	0.69	0.14	(0.08)	0.10
Jewish	0.10	(0.04)	0.02	-0.58	(0.22)	0.01	-0.02	(0.04)	0.62	0.12	(0.09)	0.17	0.37	(0.14)	0.01
Catholic	0.04	(0.03)	0.28	<i>0.14</i>	(0.06)	<i>0.03</i>	-0.08	(0.03)	0.00	0.01	(0.04)	0.86	-0.10	(0.06)	0.07
Mainline															
Protestant	0.03	(0.03)	0.36	0.18	(0.07)	0.01	-0.09	(0.03)	0.00	-0.01	(0.04)	0.85	-0.12	(0.07)	0.08
Charismatic	-0.01	(0.01)	0.38	-0.01	(0.02)	0.77	-0.01	(0.02)	0.61	-0.01	(0.02)	0.60	0.04	(0.02)	0.01
Performance	-0.03	(0.04)	0.49	0.14	(0.08)	0.07	-0.23	(0.05)	0.00	0.09	(0.05)	0.12	0.04	(0.07)	0.55
Biblical															
literalism	-0.05	(0.03)	0.17	0.18	(0.07)	0.01	-0.40	(0.05)	0.00	<u>-0.14</u>	<u>(0.06)</u>	<i>0.02</i>	0.40	(0.06)	0.00
Universalism	-0.01	(0.03)	0.63	0.06	(0.06)	0.34	0.02	(0.04)	0.65	0.08	(0.05)	0.10	-0.14	(0.06)	0.02
Trust index	-0.04	(0.04)	0.28	0.14	(0.09)	0.12	-0.14	(0.04)	0.00	0.08	(0.06)	0.18	-0.03	(0.07)	0.67
Perceived															
control	-0.05	(0.06)	0.38	-0.01	(0.08)	0.85	0.04	(0.06)	0.53	0.02	(0.07)	0.78	0.01	(0.06)	0.90
Age	0.12	(0.05)	0.03	-0.08	(0.10)	0.44	-0.06	(0.05)	0.29	0.01	(0.08)	0.90	0.01	(0.11)	0.92
White	0.05	(0.04)	0.20	-0.02	(0.07)	0.81	-0.02	(0.03)	0.49	0.04	(0.04)	0.31	-0.06	(0.05)	0.30
Black	0.04	(0.04)	0.35	-0.06	(0.09)	0.51	-0.09	(0.06)	0.14	0.02	(0.07)	0.74	0.09	(0.06)	0.17
Education	-0.10	(0.03)	0.00	0.18	(0.06)	0.00	0.05	(0.03)	0.03	0.04	(0.04)	0.31	-0.17	(0.05)	0.00
Male	0.02	(0.02)	0.42	0.00	(0.03)	0.97	-0.01	(0.02)	0.68	<u>-0.06</u>	(0.02)	<u>0.02</u>	0.05	(0.03)	0.08
Income	-0.06		0.04	0.02	,	0.76	0.03	,	0.37		/				0.60

Notes: Shaded cells contain estimates that are statistically significant at various levels: bolded entries represent p<0.01; italicized entries convey p<0.05; underlined entries convey p<0.10. Color of shaded cells matches color of point estimates in Table 5 in main body of text. Estimates derived from modeling results depicted in Table A7.