Abstract

Personal religiosity is positively associated with meaning in life; however, religious life is not characterized solely by personal religiosity but also by collectively performed liturgies embedded in specific physical environments. We argue that these other features of religious life—what can be called "socioecological" features—afford different perceptions of meaning in life. In the current study, we employ a common distinction in Christian ecclesiology— "high church" versus "low church"—to investigate how church contexts as socioecologies differentially affect meaning in life. We hypothesize that low church contexts—given their emphasis on personal religiosity and individual religious experience—will lead to greater selfreported global meaning in life, mattering, and purpose than high church contexts. We also predict that self-reported comprehension will not differ between low church and high church contexts. Implications for the psychological study of religion, both in terms of methodology and theory, will be discussed.

Keywords: Religiosity; Christianity; High Church; Low Church; Liturgy; Socioecological Psychology; Meaning in Life

Church Contexts Are Meaningful

"...humans are deeply embodied and embedded creatures that are formed not as much by what we think or believe, but by the kinds of social and physical interactions with the world that we engage..." —Strawn & Brown (2013)

Consider two church services. In the first, parishioners kneel contemplatively during a traditional mass, set against the backdrop of an ornate cathedral. In the second, congregants in an auditorium lift their arms upward as they sing along with dynamic, contemporary Christian worship music. The former is a style of corporate worship dubbed "high church", whereas the latter is a style called "low church". Here, we ask: Would churchgoers leave these different contexts perceiving their lives the same way? In the present study, we examine how this distinction in church contexts—high versus low church—influences meaning in life, an extensively studied outcome that has shown robust positive ties to religiosity (for reviews, see King & Hicks, 2021; Park, 2013).

While such work has evidenced a strong theoretical and empirical link between religion and meaning, it has often not given due consideration to how psychologists should conceptualize and operationalize the phenomenon of religion. Studies examining the nexus of religion and meaning tend to rely on subjective self-report measures of religiousness-in-general (Hall et al., 2004; Moberg, 2002)—or what we call personal religiosity—such as intrinsic religiosity and religious commitment (e.g., Hicks & King, 2008; Tix et al., 2013; Womick et al., 2021). Measures of personal religiosity privilege individual religious beliefs and feelings, that is, what goes on inside the head and heart of the believer (Hall et al., 2004; Perlin et al. in prep). These measures and the theoretical perspectives that sustain them neglect *the socioecological context* (Heft, 2001) of religion, that is, the physical spaces in which sociocultural patterns of activity (i.e., liturgy) are enacted (Graham & Haidt, 2010; Oishi & Graham, 2010; Meagher, 2018; Strawn & Brown, 2013). Socioecological contexts, while oft-overlooked, are a crucial aspect of social psychological processes (Meagher, 2020; Oishi & Graham, 2010). In order to fully understand and appreciate the religious roots of meaning in life, we need to move beyond investigations of private beliefs and personal religiosity (a highly Protestant conception of religion; Cohen & Hill, 2007); we must also incorporate considerations of socioecological contexts, which afford and constrain opportunities for perception and action (Gibson, 1986; Heft, 2001; Oishi & Graham, 2010; Ramstead et al., 2016). Indeed, socioecological contexts have been shown to influence perceptions of meaning in life (Heintzelman et al., 2013; see also Heintzelman & King, 2014). Moreover, socioecological contexts have been increasingly emphasized in theological scholarship (e.g., Cockayne, 2018; Cockayne & Salter, 2021; Lindbeck, 1984; Smith, 2017); therefore, such a socioecological investigation in psychology brings the social science of religion into greater conversation with theology. This is an important task for facilitating cross-disciplinary research and for conducting psychological research that remains sensitive to religious self-understanding.

We apply a socioecological lens by assessing whether perceptions of meaning in life are differentially related to the Christian tradition's distinction between *high vs. low church contexts*, which we introduce and define in the following section. Next, we review theoretical and empirical research linking religion to meaning in life, with a particular emphasis on how these findings bear on the distinction between high and low church contexts. We predict that low church contexts will increase global meaning in life and two of its dimensions (mattering and purpose) relative to high church contexts, given that low church contexts emphasize, and are

designed to facilitate, an individual's personal appraisals of life's meaningfulness. To investigate these hypotheses, we experimentally manipulate the highness or lowness of the church context, which includes both the worship environment (i.e., the physical space) and the liturgy (i.e., patterns of practice across time within a given space). Notably, experimental methods are underused in the psychology of religion, constraining the field's ability to establish causal relationships. Here, we are able to make causal inferences through manipulating our variable of interest. Further, we work with local church partners and a liturgist (the fourth author) in order to increase ecological validity and ethically orient our project around a non-exploitative, community-engagement model (Liu et al., 2021). Overall, our project advances theory and research in the psychology of religion by examining how the socioecological contexts of religion—not just individual religious beliefs—are significant sites for understanding the relation between religion and meaning in life.

High vs. Low Church Contexts

How Are High Church and Low Church Defined and Where Do They Come From?

The distinction between "high church" and "low church" originated in 18th- and 19thcentury Anglicanism (Armentrout & Slocum, Eds., 2000). Over time, this terminology became a colloquial and prevalent means by which both clergy and laypeople in a variety of Christian denominations describe corporate Christian worship, particularly in terms of the ecclesiological structure of the church's built environment and liturgy.

The term "high church" refers to ecclesiological streams in Christianity (e.g., Roman and Anglo-Catholicism, Eastern Orthodoxy) that emphasize ornate aesthetics (e.g., vaulted ceilings, stained glass, pews) as well as a traditional and ritualistic liturgy (e.g., incense, holy water, frequent kneeling, organ hymns). All of these features evoke a sense of transcendence and

invoke a connectedness to tradition. In high church contexts, the gothic and baroque aesthetics reflect a church's self-understanding as sacred, transcendent, and set apart from the world, in contrast to something ordinary or secular. Further, the traditional ritualism of the liturgy fosters a sense of ceremonial continuity with contemporary and bygone members of the church. In turn, this affords a sense of a great tradition spanning time and space (see Cockayne & Salter, 2021). Indeed, the word 'catholic'—a tradition associated with high church contexts—literally means 'universal', connoting the temporal and geographic universality of the catholic faith.

By contrast, the term "low church" refers to ecclesiological streams in Christianity (e.g., Evangelical, Reformed, and certain aspects of Charismatic Christianity) that emphasize simple aesthetics (e.g., individual seating, stages, projectors¹), as well as a liturgy that reflects personal self-expression (e.g., altar calls; opportunities for private, free prayer; use of contemporary Christian worship music) (Harp, 2005; Meador, 2014; see Cohen & Hill, 2007; Van Cappellen et al., 2021; see also Inglehart & Baker, 2000, who find that historically Protestant countries tend to endorse self-expression values). In low church contexts, what is perceived to be aesthetically indulgent, unnecessary, and distancing is rejected in keeping with the broader ethic of the Protestant Reformation. What is given primacy in low church contexts is not the outward forms but instead the inward experience of 'conversion' (Harp, 2005), or a transformation and reorientation of the head and heart of the individual believer towards God. Indeed, Gillis Harp (2005, pp. 181–182), a scholar of American church history, writes: "Unlike the high church

¹The *New York Times* recently captured such aspects of low church contexts: "Many pre-21stcentury symbols of church life have fallen out of fashion in evangelical culture...Sanctuaries are now 'worship centers,' and steeples and stained glass are out. Natural light is often eschewed in favor of a black-box theater aesthetic optimized for flashy audiovisual experiences and online streaming...architecture is often utilitarian...invisible shifts in personal belief [are] the site of greatest drama" (Graham, 2021).

party, evangelicals [low churchmen] de-emphasized outward forms and championed an 'experimental religion' of the heart...[and] were also known by the simpler ceremonial they employed in worship."² Empirically, Evangelicalism is associated with higher self-reported intrinsic religiosity and religious commitment (measures of personal religiosity) relative to other Christian denominations (Cohen & Hill, 2007; Tix et al., 2013; Tix & Frazier, 2005; cf. Steger et al., 2010). These findings are suggestive of the relative emphasis given in Evangelical circles in particular, and low church traditions in general, on a sense of personal connectedness with God and on individual conviction regarding religious life—that is, on the sense that God is intimately involved in one's life and that one is personally committed to following Jesus—as opposed to an emphasis on traditionalism, ritual, and transcendence.

What Are the Socioecological Features and Affordances of High vs. Low Church Contexts?

Broadly, high church contexts are characterized by transcendence and traditional ritualism, whereas low church contexts are characterized by personal religiosity and self-expression. Both of these emphases reflect divergent perspectives on the role and goals of the church. These differences become instantiated in socioecological features of church environment and liturgy, which afford and constrain opportunities for perception (e.g., perceptions of meaning in life). In other words, religions sacralize both space (environment) and time (liturgy) in concrete ways, which in turn direct and canalize worshippers' thoughts, feelings, attention, and behaviors. It is worth noting that the distinction of "high" vs. "low" church is not merely nominal, nor does it reflect esoteric academic squabbles divorced from the everyday lives of practitioners. Rather, these terms represent substantial and enduring debates in how individuals and communities understand their faith. For example, Pope Francis issued a papal initiative in

²The word "experimental" is akin to how one would typically use the word "experiential".

July 2021 offering new regulations for the celebration of the Traditional Latin Mass (a high church liturgical practice), as compared with the *Novus Ordo* (literally, "new order"), a more modern liturgy instituted by Pope Paul VI in the late 1960s (Chiron, 2021). While the theological details of this debate are beyond the scope of this paper, the papal initiative itself—and the storm of controversy it stirred among clergy and laity (e.g., Ferrone, 2021; Winters, 2021)—demonstrates the importance of socioecological issues for religious self-understanding.

As an example of environmental features, very high churches—especially ones that date to the medieval or early modern period-may make use of an altar screen that separates congregants from the most sacred objects and operations of the clergy (i.e., the Eucharist). This feature of the built environment literally constrains the behavior and perception of congregants and concretely establishes the set-apartness of the church and its operations. Embedded within this constraint is an implicit declaration about where to find meaning: In this case, meaning lies outside of the individual worshipper and their fleeting feelings, located instead in the outward forms of the church (see Harp, 2005). Further, such an emphasis on the consecration of the Eucharist by clergy alone implies that the relation with divine meaning is both communal and mediated by the outward forms of the Church insofar as it is celebrated and received by the Church. By contrast, low church worship environments convey alternative messages about where and how meaning is to be found: The individual seating, the large stage to accommodate musicians and the preacher, the relatively undecorated space, and the use of individual plastic cups rather than a common-cup chalice for communion are all meant to focus attention away from outward forms per se and towards inward experience and belief. Indeed, low church contexts-those with "undecorated, modern, and informal" features-have been shown in empirical studies to host congregants who tend to report higher scores on intrinsic religiosity

(Meagher, 2018, p. 75). We argue that this may be partially attributable to features of the built environment that communicate a more immanent, inward emphasis. Crucially, rather than evidence that low church members are "more religious" than their high church counterparts, these findings likely instead reveal biases in how we conceptualize and operationalize religion, which in turn has downstream consequences for psychological outcome variables of interest. Thus, the relation between religion and psychological outcomes would appear more empirically complicated than is typically considered in the psychology of religion.

As an example of the liturgical features of high and low church contexts, most Christians can probably recite the Lord's Prayer by heart in its traditional form ("Our Father, Who art in heaven, hallowed be Thy Name..."). However, many low churches have begun to use a revised version with more simple, contemporary phrasing (e.g., "Our heavenly Father, Your Name is ever holy"; Barton, 2015). These kinds of linguistic shifts are not liturgically abnormal. Indeed, they parallel historical and contemporary debates regarding praying and reading the Bible in an archaic language (e.g., Latin) as opposed to the "vernacular", the former associated with God's transcendence and the latter intended for individual comprehension (Armentrout & Slocum, Eds., 2000). It is, of course, noteworthy that the frequent use of archaic languages is most associated with the high church tradition and an emphasis on the vernacular is found most commonly in the low church tradition. This reflects an ethos specific to each tradition: the high church tradition that seeks to remove barriers to the individual's subjective experience.

An important caveat is required: Though we can conceptually separate both environmental and liturgical features of church contexts, we do not intend for these to be conceived as absolutely separable features; instead, they mutually constitute the gestalt of a high vs. low church context. Environmental contexts are populated with signals for how people should engage liturgically with a space, even prior to explicit instructions. For example, a hassock (a cushion affixed to the back of pews in a church) affords kneeling; the mere presence of such an object indicates that people in this environment kneel, and such a signal is revealing that this environmental context might abstractly be labelled "high church". Additionally, the presence of an altar at the front of the church suggests that communion is celebrated regularly, as the altar represents the sacrificial dimension of the Eucharistic feast (i.e., receiving the Body and Blood of Jesus Christ). The absence of an altar in favor of a large stage area, for example, gestures to the primacy of preaching and the performance of worship music found in low church contexts. Thus, environment and liturgy are bound together in such a way that separating them for the purpose of experimentation would both undermine the socioecological emphasis of the present study, and isolating them would appear artificial, jarring, and liturgically challenging to parishioners. Indeed, this represents an established socioecological principle termed "synomorphy", that is, the congruence between a behavior and the environment in which that behavior takes place (see Heft et al., 2014).

How is the High vs. Low Church Context Construct Distinct from Denomination?

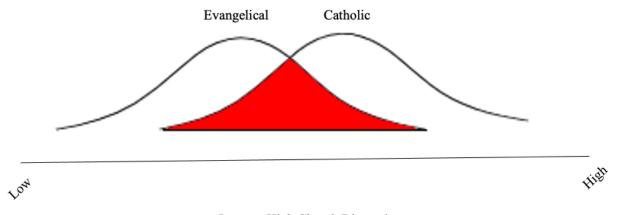
One may be tempted to assume that the high vs. low church context distinction is merely a proxy for denominational differences. And it is certainly the case that the high–low continuum and denomination are correlated, as we have already alluded to in the examples we provide above. As shown in Figure 2, one might be able to safely guess a church's position on the high– low continuum using the knowledge of whether that church is, for example, an Evangelical or a Roman Catholic one. However, this shared variance is purely probabilistic, neither absolute nor theoretical. First, most church contexts exist between extremes, employing both high church and low church forms to varying degrees. Thus, in the vast majority of cases, individual churches do not map neatly onto denominational stereotypes. It is not impossible to find a relatively low church Roman Catholic worship environment or service, nor is it impossible to find an Evangelical church that incorporates more traditional and ritualistic elements of high church contexts into their service (e.g., by meeting in an ornate building or by receiving weekly communion³). For these groups, denomination would be a poor approximation of the individual's experience in church. Examining churches on the basis of their church contexts therefore allows us to examine how experiences with religious participation differ in a more precise and accurate way than denominational distinctions alone can afford.

Further, the intuitive way in which much scholarship organizes Christian denominations implies the existence and importance of another organizing factor. Why must it be the case that Roman Catholics are contrasted with Evangelicals (e.g., Tix et al., 2013; Van Cappellen et al., 2021)? We posit that one underlying organizing factor is the high–low continuum, and this continuum contrasts Roman Catholics and Evangelicals by virtue of the fact that they tend to lie at the extremes of this continuum (see Anderson, 2015; Ross, 2014). To this point, that multiple different denominations can be classified under the rubric of either high church or low church—denominations as disparate as, for example, Roman Catholic and Eastern Orthodox—suggests that denominations can be organized according to this socioecological factor but contain other features that demarcate them from one another. Thus, the high vs. low church context distinction

³In fact, our low church partner for the current study does celebrate weekly communion during their regular services.

may be seen as empirically correlated with, but not theoretically reducible to, denominational affiliation.

Figure 2. Sampling probability of two denominations along the high–low church context continuum. As illustrated here, the high–low continuum may be related to denomination insofar as denominations can be located along this axis; however, this does not mean that denomination is reducible to the high–low dimension.



Low vs. High Church Dimension

High vs. Low Church Contexts and Perceptions of Meaning in Life

Having thus defined high church and low church contexts as salient and significant aspects of religious life, outlined their historical emergence, specified their constitutive socioecological features, and distinguished them from denominational affiliation (a common variable in social scientific research), we now outline how these socioecological church contexts may bear on perceptions of meaning in life. While the positive relationship between religion and meaning is well-trod ground (for reviews, see King & Hicks, 2021; Park, 2013; Pargament, 1997), much of this research is based on the use of subjective reports of personal religiosity rather than the socioecological features of religious life. Additionally, the empirical research linking religion and meaning in life has largely focused on global meaning in life—that is, without differentiating separate facets of meaning in life (cf. Womick et al., 2021) given their more recent formalization. Namely, recent psychological conceptions of meaning in life consist of three facets: 1) *mattering*, or the feeling that one's life has significance; 2) *purpose*, or the feeling that one's life has a clear direction and goals; and 3) *comprehension*, or the feeling that one's life, experiences, and environment make sense (Martela & Steger, 2016; George & Park, 2017). Given that these three facets are closely connected (Martela & Steger, 2016), they tend to be directionally affected in similar ways, even as stimuli may differentially impact one or another facet to a greater or lesser extent (Dai et al., 2022; Martela & Steger, 2022).

Importantly, all three facets are theoretically connected to religion (see footnote 5 of Costin & Vignoles, 2020). That said, there is some recent empirical work on religion's nuanced relations to the three respective meaning in life facets (e.g., Womick et al., 2021). Below, we review how religion has been empirically and theoretically linked to each of the three facets of meaning in life, as well as how such linkages might bear on the distinction between high vs. low church contexts. Overall, we argue that: *a*) low church contexts are likely to enhance mattering and purpose (both relatively individualized and personal dimensions of meaning in life) to a greater extent than high church contexts, given that low church contexts, given that both contexts, given that both church contexts, given that both church contexts, given that both church contexts provide scaffolds by which to understand life experiences; and *c*) global subjective reports of meaning in life will be greater in low church contexts than in high church contexts, given that low church contexts than in high church contexts, we do not believe that any directional associations between church contexts and meaning in life

support that one church context is "better" than another; rather, we think it reflects the particular ways in which both religion and meaning in life are measured in psychological science, with the former assessed primarily through subjective reports of personal religiosity and the latter assessed primarily through subjective reports of life's meaningfulness. In other words, personal religiosity—the promotion of which is emphasized by low church contexts—may simply be well-suited to capture variation in subjective reports of meaning in life.

Religion, Church Contexts, and Mattering

Researchers in the psychology of religion have been especially interested in religion's relation to mattering (e.g., Bonhag & Upenieks, 2021; Prinzing et al., 2021; Schieman et al., 2010). Some have gone so far as to argue that the link between religion and meaning in life is primarily driven by religion's influence on the mattering facet (King & Hicks, 2021). Such an argument is predicated on the finding that intrinsic religiosity (Womick et al., 2021) and self-reported global religiosity (Edwards et al., 2022) have both been shown to relate most strongly to the mattering facet of meaning in life as compared with the other facets. Further, a sense of one's cosmic mattering largely explains the relationship between religiosity and meaning in life (Prinzing et al., 2021).

Importantly, attendees of typically low church contexts report greater personal religiosity than do attendees of typically high church contexts (Cohen & Hill, 2007; Meagher, 2018; Tix et al., 2013; Tix & Frazier, 2005). By extension, it is reasonable to hypothesize that low church contexts would be associated with greater mattering relative to high church contexts. Indeed, the intimacy of God's involvement in the worshipper's personal experiences may produce the feeling that one's life is cosmically significant (see George & Park, 2017; Prinzing et al., 2021). When the cues of the behavioral setting both turn one's attention inward to one's personal,

unmediated relationship with God and emphasize God's immanence in the life of the individual believer, it is no surprise that feelings of personal mattering emerge as a defining characteristic of the low church experience. Indeed, Evangelicals, who tend to worship in low church contexts, have reported greater global meaning in life than either Catholics or Mainline Protestants, both of whom tend to worship in relatively high church contexts (Tix et al., 2013). In contrast, the high church cues of transcendence, long tradition, Church mediation, and communal participation may engender the feeling that one is ultimately and cosmically small (see Piff et al., 2015; Yaden et al., 2018) rather than feelings of personal significance.

Religion, Church Contexts, and Purpose

Second, purpose is deeply tied to Christian identity, particularly given the theological emphasis on Jesus's mission (e.g., Jn. 17:20–23) and Jesus's instruction for the Church to engage in evangelistic mission to make disciples of all nations (Matt. 28:19–20). Additionally, purpose has shown empirical ties not only to measures of personal religiosity (e.g., Francis et al., 2010), but also to religious variables such as church attendance (Robbins & Francis, 2000) (for a review, see Francis, 2013).

Findings regarding the relation between church contexts and purpose is not unambiguous; however, we contend that the preponderance of evidence is in favor of the hypothesis that low church attendees should experience greater subjective purpose than their high church counterparts. While studies have found no significant differences between Protestants and Catholics on purpose in life (Gerwood et al., 1998; see also Robbins & Francis, 2005, although the authors did not compare Catholics and Protestants using a test of statistical significance), studies—including those that do not find a denominational difference—do also find that one of the most robust predictors of purpose is personal religiosity, which tends to be promoted in low church contexts. For example, in Gerwood et al. (1998), a variable they label "meaningfulness of spirituality" was significantly associated with purpose in life. While there were no denominational differences on meaningfulness of spirituality, it is important to note that: a) their sample consisted of older adults, who tend to be more spiritual than other age groups (Moberg, 2008); and b) relative to high church contexts, low church contexts are designed to foster such spirituality, conceptualized as a more personal relation with the transcendent compared with an emphasis on institutional religion (see Malone & Dadswell, 2018). Paralleling this study observation, intrinsic religiosity, but not extrinsic and quest religiosity, have shown positive associations with purpose in life (Ardelt & Koenig, 2007; Francis et al., 2010; Jewell, 2010). As already stated, intrinsic religiosity tends to be higher among traditions that could be classified as low church (Tix et al., 2013; see also Meagher, 2018). As additional evidence for the link between low church traditions and purpose in life, a poll conducted by LifeWay Research in 2018 found that denominations that tend to be associated with relatively low church contexts (e.g.,, Pentecostal and Evangelical Non-Denominational churches) were more likely than Mainline Protestant denominations that tend to be associated with relatively high church contexts (e.g., Lutheran and Methodist) to invite other individuals to church (see Smietana, 2018). To be sure, there are many possible explanations for this finding, cutting across theology, sociology, history, and their intersections. Nevertheless, it is noteworthy that such an emphasis on evangelism and mission tends to co-occur with worship in an environmentally and liturgically low church context.

More directly relevant to these latter considerations, low churches are often selfconsciously designed to be a place in which missional activities can occur. For example, they are more likely to design their spaces to be multi-purpose, accommodating missional activities in addition to weekly worship. High church contexts, however, are thought of as sacred and set apart. Additionally, the liturgy of a low church service is often designed with the intention of eliminating any barriers to understanding the laity may experience (e.g., praying in the vernacular), making the experience of transcendence feel unmediated. In some respects, this liturgical format is expressly missional in its aim to permit even those new to the Church, and thus uninitiated in its traditional forms and rites—the capability to connect with God. Finally, purpose in life as it has come to be understood and measured in the psychological literature is a subjective experience of one's own personal sense of goal-directedness—that I, as an individual, have a path and plan in life. In this way, purpose mirrors mattering to the extent that the emphasis is on the individual, and thus we would expect the same pattern of associations between church contexts and purpose as we expect with mattering.

Religion, Church Contexts, and Comprehension

Third, we suggest that high and low church contexts both provide comprehension in their own ways; therefore, we posit that there will be no statistically significant differences between high and low church contexts on the comprehension facet of meaning in life.

To begin, ritual is positively associated with meaningfulness (Schnell & Pali, 2013). Ritual offers the opportunity for routine, which has been empirically shown to increase meaning in life, theoretically because it enhances a sense of comprehension (Heintzelman & King, 2019). Overall, high church contexts offer more opportunities than low church contexts for established, traditional ritual (e.g., repetitive and responsive prayers), which should foster a greater feeling of routine, and therefore comprehension (see Heintzelman & King, 2019). All this said, low church contexts have their own forms of ritual which, while potentially less explicit than those of high church contexts, may equally contribute to a sense of comprehension. Indeed, all churches have a liturgy, even if it lacks formality and traditionalism (Senn, 2012).⁴ It is even possible that such informal and modern rituals are, at first blush, more cognitively and emotionally accessible than those of traditional high church contexts, given that the rituals of the low church service often require less specialized knowledge of unique environmental features such as hassocks. The rituals of low church contexts may be particularly accessible in the context of a single service, thereby engendering greater comprehension in the present study.

Comprehension can also emerge from one's being situated in a larger meta-narrative, or what have been conceived in the psychological literature as global meaning frameworks (George & Park, 2016). In such cases, the individual's personal meaning is deeply tied to collective meanings (Baumeister & Landau, 2018). By providing a global meaning framework through which life events can be understood and linked, and in which the individual self can be situated, religions can foster the feeling that life and existence make sense (Park, 2005, 2011). On the one hand, the traditional liturgy and aesthetics of high church contexts enfold and embed the self in a larger meta-narrative (Allman, 2000; Cockayne & Salter, 2021). Nevertheless, it is also true that low church contexts promulgate meta-narratives about who they are and what they believe concerning God. Thus, we argue that comprehension will not differ between high and low church contexts on the basis that both contexts provide ritual (at least of a certain kind) and global meaning structures afforded through environment and liturgy.

Religion, Church Contexts, and Global Meaning in Life

⁴Merker (2021) illustratively states that "some may associate the idea of liturgy with high-church formalism and rote tradition. But in reality, every church has a liturgy. No matter how simple or complex, how short or long, each church's order of service expresses a set of theological values. And in turn, the liturgy gradually inculcates those same values in the church's members" (Chapter 5, section "What is a Liturgy?", para. 5).

Finally, church contexts should relate to global meaning in life, not only in proportion to its directional relation to all three facets but also in terms of its relation to global subjective appraisals of life's meaningfulness. As we've intimated throughout, in high church contexts, meaning is located in the rituals and artefacts themselves (e.g., the sacramental meaningfulness of the physical elements of the Eucharist rather than the private meaningfulness of the believer's personal experience of faith). Whether or not the individual in the high church context subjectively experiences the feeling of meaningfulness in response to it is, while not irrelevant, certainly not as central to the service as it is in low church contexts. Existing measures of meaning in life, however, are not designed to capture this kind of sacramental meaning. Rather, they are designed to capture people's perceptions and personal experiences of their own individual life meaning. Thus, we expect individuals in low church contexts to report higher global meaning in life than their high church counterparts, both due to the facet-level associations we predicted above and due to the overall understanding of meaning in these different contexts.

The Current Study

The present research examines how Christian church contexts relate to meaning in life. The study manipulates high vs. low church contexts in a within-subjects experimental design to examine their causal effects on meaning in life. We present the following four hypotheses:

H₁: Low church contexts will foster greater mattering than high church contexts.
H₂: Low church contexts will foster greater purpose than high church contexts.
H₃: There will be no significant difference between low and high church contexts on comprehension.

H₄: Low church contexts will foster greater global meaning in life than high church contexts.

Finally, the experimental nature of the current study allows us to determine whether the observed differences in meaning in life between denominations (see, e.g., Tix et al., 2013, Krause, 2007; Thompson et al., 2003; Stillman et al., 2011) are caused by socioecological factors or, instead, by driven by individual differences. In this way, our study may clarify the nature and structure of meaning as a construct and the role of religion in it, regardless of the outcomes of our primary hypothesis tests.

A Community-Engagement Model: Methodological and Ethical Justification

We will employ a community-engagement model (Liu et al., 2021) to carry out research that is not only ecologically valid and scientifically rigorous but also culturally sensitive and ethically responsible. The study will be conducted in active, positive partnership with local Christian church organizations. Namely, we will partner with local churches to carry out the manipulations, local Christian participants will come to actual churches, and a local liturgist (the fourth author) has helped to craft the liturgies and will perform them for the duration of the study. Finally, the results of the study will be offered back to the participating churches and Christian communities that supported the research. Specifically, we will share our manuscript with all individual participants and participating churches (congregants of which may also take part as pilot participants, even as they may not be eligible for the actual study so as to avoid systematic bias). Additionally, we will present our results to community events at both churches, for the edification not only of the congregations of the church partners but also the broader Christian and non-Christian community locally.

Methods

Participants

Participants will be 90 Protestant Christians recruited from the surrounding community and from the student participant pool at a university in the Southeast U.S. Community participants will be recruited in partnership with local church and parachurch organizations and will be compensated \$35 for their time. Students will be granted course credit in exchange for participation. This remuneration amount may be increased over the course of the study if recruitment proves challenging. In addition to financial compensation, participants will be given lunch as a part of the debriefing, as well as a journal in which they will have recorded their personal reflections (see Methods below).

This target sample size (N = 90) is based on *a priori* power analyses using the *pwr* package (Champely et al., 2020) in R, and yields 80% power to detect social psychology's median effect size (Cohen's d = 0.3; Lovakov & Agadullina, 2021) or larger at $\alpha = 0.05$. Protestant Christians were selected as the target demographic because many Protestant churches tend to have a blend of high church and low church elements. Further, Protestant Christians are less likely than their Roman Catholic and Eastern Orthodox counterparts to be made uncomfortable by worshipping in non-Catholic/Orthodox contexts or to have serious theological objections to doing so. We intend this to be both more ethically sensitive to participants' religious experiences as well as methodologically valid in terms of participants responsiveness to the manipulation.

Procedures

The study consists of a two-condition within-subjects design. Participants will complete two short (30 minute) worship services—one consisting of a high church liturgy in a high church

environment and the other consisting of a low church liturgy in a low church environment. The order of these services will be counterbalanced to rule out order effects. The liturgies will be matched for length, valence, and subject matter but will differ in their form. For example, both forms of the liturgy include a recitation of the Lord's Prayer: In the high church condition, this will be called the Pater Noster (Latin for "Our Father" and the traditional name by which the prayer has gone) in the archaic old-English of the King James Version of the Bible ("Our Father, Who art in heaven..."). By contrast, in the low church condition, the Lord's Prayer will be said in the vernacular ("Our Father in heaven..."). Similarly, traditional hymns will be used in the high church condition whereas contemporary worship songs will be used in the low church condition. Outlines of each liturgy can be found in Appendix B. Note, these liturgies were crafted in collaboration with the fourth author, a liturgist employed at a local church and who was previously on staff at one of our partner churches. The liturgist has had multiple years of experience crafting and conducting liturgies in both high church (e.g., Anglican) and low church (e.g., Pentecostal and Evangelical) contexts. The same individual will serve as officiant at both services. Full written forms of the liturgies will be made available online at https://osf.io/gq46d/.

Participants will be recruited in groups of between 20 and 25 people. The reasons for recruiting groups of participants rather than individual participants are both methodological and pragmatic. Methodologically, there is greater ecological and construct validity for participants to pray in groups, as the high vs. low church context distinction is concerned with *corporate*—that is, communal—worship contexts. Pragmatically, it would be burdensome for our church partners to accommodate hundreds of hours each for experimental protocols in their sanctuaries if participants were recruited individually. Of course, we recognize that our study is limited in its capacity to replicate real life congregational experiences in terms of size and community;

however, our group recruitment approach approximates various dynamics of corporate worship in ways that individual recruitment cannot and in ways that are practically feasible. Images of the worship environments these services will be held in can be found in Figure 3. Full details on these spaces (e.g., dimensions, more detailed photographs) will be made available online at <u>https://osf.io/gq46d/</u>. We have secured agreements from both churches for their participation in this project, which will also be made publicly available on OSF.

Figure 3. Partner church spaces used to manipulate high vs. low church environments.

Space to be used for high church environment condition (Holy Trinity Church, Gainesville, FL):



Space to be used for low church environment condition (City Church, Gainesville, FL):



Individuals will be recruited to take part in an advertised "Day of Worship, Prayer, and Spiritual Practices in [City Name] Churches", which will last approximately 3.5 hours. At the beginning of the day, participants will be given a physical prayer journal in which they record their responses to Likert-style questionnaires as well as answer a variety of open-ended questions about their experiences in the church contexts. Participants will be permitted to keep these journals at the conclusion of the day; however, we will ask at the beginning and end of the day if participants consent to have their journals photocopied (participants will be told at the beginning of the day that they will also have an opportunity to rescind consent at the end of the day). The study will begin with an orientation to the activities of the day, a written and verbal informed consent process, and the distribution of prayer journals. Then, individuals will complete several open-ended questions regarding their religious and spiritual life before participating in the first prayer service. As stated above, this service will be either the high or low church service, and the order of these services will be counterbalanced across experimental sessions: In the first session, participants begin in one service and end in the other; in the second session, the order is reversed. We will not conduct two sessions simultaneously in order to keep the same individual (the fourth author) as officiant in all services.

Following the first prayer service, individuals will complete all Likert-style questionnaires in their prayer journals (which will be pre-written inserts) and then will answer several other open-ended questions. This portion of the study should take approximately one hour. Following this, participants will be walked over to our other church partner space (less than 0.25 miles, or approximately four minutes to travel by walking according to Google Maps) by a group of Research Assistants. Participants will then be given approximately a 20-minute water and snack break in order to reset after the first service, bring down any physiological arousal from walking, and to slake hunger and thirst as participants move into the second service. Participants will then follow an equivalent protocol in the second church space, with the only major change being the specific church service in which they are taking part. Finally, participants will be given a lunch at the conclusion of the day, in which they are debriefed about the purposes of the study by all study personnel (the first two authors and fourth author, as well as all active Research Assistants) and in which they have the opportunity to have a discussion about their religious experiences during the day. These debriefs will be audio-recorded if consent for such recording is provided by all study participants, and these audio-recordings—as well as the photocopied prayer journals—will serve as an additional and generative source of qualitative data for future research.

The reasons for this elaborate data collection advertised as a "Day of Worship, Prayer, and Spiritual Practices in [City Name] Churches" are twofold. First, doing so is methodologically desirable insofar as it increases ecological validity. Particularly when studying religious experiences, it is important that the specific context be perceived as naturalistically affording such experiences; the artificiality of experiencing such religious moments in a lab environment may change not only the likelihood and intensity of such moments but may also lead to increased perceptions of being scientifically observed, thus changing the tenor and interpretation of the experience. Second, doing so accords with our community-engagement (Liu et al., 2021) and non-exploitative values. Such a religious retreat as we have planned enriches the local Christian community in the measure that religious individuals both have the opportunity for a spiritually edifying experience and can become acquainted with additional local churches. This has the additional benefit of helping those local churches attract potential members and make connections with the local Christian community.

Measures

Complete forms of all measures can be found in Appendix A.

Screening Survey

Participants will first be screened based on denominational affiliation. This is to ensure that only Protestants participate in the study. Denominational affiliation will be captured using two items. First, participants will indicate their current religion. For exploratory purposes, those identifying as Protestant Christian will then complete a second item capturing their broad denominational affiliation (e.g., Baptist, Episcopalian). Participants will be grouped on the basis of these responses (e.g., a participant who identifies with the Episcopal Church would be classified as a Mainline Protestant), and these Protestant groupings will be used in exploratory moderator analyses (see Analysis Plan). This conforms to the denominational approach to categorizing Protestants used by the Pew Research Center (Pew Research Center, 2018). Individuals who do not respond as identifying with a Protestant denomination will not be recruited to participate.

Primary Measures

Manipulation Check. A manipulation check consisting of two items will be administered in each church context: 1) "From 1 (extremely low church) to 7 (extremely high church), how would you describe the service you just attended?" and 2) "From 1 (extremely low church) to 7 (extremely high church), how would you describe the church space the service was held in?". Definitions of all relevant terms will be provided to participants.

Comfort, Similarity, and Objections. We understand that asking participants to worship in a context that may be quite different from their norms and preferences may make some participants uncomfortable. However, we have reason to believe that this discomfort or disorientation will be minimal for most participants. The population from which we are recruiting is likely to have some experience with varying church environments and liturgies given the prevalence of denomination-switching among American Protestants. Approximately 46.5% of American Protestants have changed their identification among the three major categories of Protestant Christianity recognized by the Pew Research Center (Mainline, Evangelical, and Historically Black), and the prevalence of switching is likely higher at the levels of denomination and individual church (Pew Research Center, 2015). Such fluidity between Protestant categories implies a degree of comfort and fluency with varying levels of church high-ness or low-ness. As such, we anticipate that participants will come into the experiment not with ossified preferences and expectations but rather with some degree of openness and receptivity to the behavioral setting.

Nevertheless, we have several methodological safeguards in place in an effort to be sensitive to participants' comfort and to prevent issues with interpreting results. First, participants will be informed of the content of the experiment and the fact that they may be asked to participate in corporate worship in both of these contexts. It will be made clear to participants that they are not required to complete the study, are free to leave at any time, and are not expected to violate any of their religious convictions during the course of the study. Participants may also request that their data not be used following completion of the study. With the consent of the participants, the denominational affiliation of those who choose not to continue in the study will be retained in order to assess mortality effects. Furthermore, we will ask participants to respond to three items relevant to this potential confound: 1) "On a scale from 1 (extremely dissimilar) to 7 (extremely similar), how similar is this worship service to the one you typically attend?"; 2) "On a scale from 1 (extremely uncomfortable) to 7 (extremely comfortable), how comfortable are you in this worship service?"; 3) "On a scale from 1 (not objectionable) to 7 (extremely objectionable), how theologically objectionable did you find this worship service?"

Meaning in Life. Meaning in life will be assessed in two ways. To measure global meaning in life, we will use the global meaning in life judgments subscale from Costin & Vignoles' (2020) Multidimensional Meaning in Life Scale. Sample items include "*My life as a whole has meaning*" and "*My entire existence is full of meaning*." We will measure the facets of meaning in life (mattering, purpose, and comprehension) using George and Park's (2017) Multidimensional Existential Meaning Scale, given its especially strong psychometric properties relative to other multidimensional meaning in life scales. Sample items include "*My life makes sense,*" (comprehension); "*I have aims in my life that are worth striving for,*" (purpose); and "*I am certain that my life is of importance*" (mattering).

While meaning in life is certainly associated with stable individual differences (e.g., Tix et al., 2013; Thompson et al., 2003; Krause, 2007; Stillman et al., 2011), meaning in life has been shown to be remarkably susceptible to manipulation. For example, one study found that simply viewing coherent (vs. incoherent) images increased meaning in life (Heintzelman et al., 2013). Another study found that momentary changes in routine activities influenced momentary ratings of meaning in life using a modified scale assessing state (rather than trait) meaning. Given these and similar findings (see, e.g., Schnell & Pali, 2013), our manipulation can reasonably produce differences in perceived meaning in life. Nevertheless, in order to attempt to encourage variability in scale responses by service, participants will be prompted to respond to all items in terms of how they are feeling right now. To further encourage variability, elevenpoint scales will be used in lieu of the seven-point scales typically used. This psychometric change will be especially helpful given that all participants will be religiously affiliated and therefore may score higher-than-average on meaning in life measures.

Exploratory Measures

Demographics. Age, race, gender, level of education, political affiliation, and socioeconomic status will be collected first. Age will be captured using a single free-response item. Race will be captured using a single item with eleven non-exclusive response options. Gender will be captured with a single item with four exclusive response options. Level of education completed will be captured with one item (primary education through doctorate degree). Socioeconomic status will be captured using three items: 1) household income; 2) the MacArthur Scale of Subjective Social Status (Adler et al., 2000); and 3) subjective financial situation on a four-category scale.

Personal Religiosity. Personal religiosity will be assessed with two validated scales: the Revised Intrinsic Religiosity Scale (Gorsuch and McPherson, 1989) and the 10-item Religious Commitment Inventory (Worthington et al., 2003). The Revised Intrinsic Religiosity Scale captures participants' degree of intrinsic religious motivation, whereas the Religious Commitment Inventory captures intrapersonal and interpersonal dimensions of religious importance and involvement.

Church Attendance. We will assess frequency of church attendance with a Likert-style question, "*How often do you attend a religious service (i.e., go to Church)?*", rated on a six-point scale from 1 (*Never*) to 6 (*More than once a week*).

Psychological Richness. The Psychologically Rich Life Questionnaire (Oishi et al., 2019) will capture psychological richness, or the extent to which participants have lives characterized by interesting, novel, and complex experiences. Like meaning in life measures, participants will be prompted to respond to all items in terms of how they are feeling right now. Psychological richness will be assessed following each service.

Happiness. Overall happiness will be captured after each service using the Satisfaction With Life Scale (SWLS; Diener et al., 1985). Like other good life measures, participants will be prompted to respond to all items in terms of how they are feeling right now, and happiness will be assessed following each service.

Self-Concept Clarity. We will measure Self-Concept Clarity after each service with the Self-Concept Clarity Scale (SCC; Campbell et al., 1996) in order to help tease apart and understand differences on the comprehension facet of meaning in life. Participants will be prompted to respond to all items in terms of how they are feeling right now, and self-concept clarity will be assessed following each service.

Experiential Appreciation. Appreciation of life and its experiences will be captured after each service with the Experiential Appreciation scale. Experiential appreciation has emerged in recent literature as an additional possible dimension of meaning in life; therefore, its inclusion here is important for exploring the broader structure of meaning in life as it continues to evolve in the psychological literature (Kim et al., 2022). Participants will again be prompted to respond to all items in terms of how they are feeling right now, and experiential appreciation will be assessed following each service.

Awe. The feeling of awe will be assessed after each service using the Awe Experience Scale (AWE-S) (Yaden et al., 2018). Participants will again be prompted to respond to all items in terms of how they are feeling right now, and awe will be assess following each service.

Analysis Plan

All analyses will be conducted in R, and R code will be made publicly available on OSF. *Preliminary Analyses*

We will first conduct manipulation checks using two paired samples t-test on responses to the two manipulation check items collected after each service.

We will then test for potential confounds, both in terms of demographics (i.e., age, race, gender, level of education, political orientation, and all three SES measures). Namely, preliminary analyses will assess whether any of these variables are significantly associated with global meaning in life judgments, mattering, purpose, and comprehension. To examine this, we will conduct four multiple linear regressions (one for each outcome), with the outcome regressed simultaneously on all twelve predictors. The reasons for this analytic approach are twofold: first, to minimize the number of tests (and thus reduce family-wise error) if we variously used t-tests, ANOVAs, and correlations for all twelve potential confounds; and second, to account for potential shared variance among predictors. Any significant predictors within these regressions will be retained as covariates using linear mixed effects models, which will be presented as supplemental analyses on OSF. All hypothesis tests (detailed below) will remain the same in the manuscript regardless of any significant demographic variables.

Finally, we will assess for order effects by conducting separate linear mixed effects models with church context order (the between-subjects effect) predicting all hypothesized and exploratory outcome variables in both conditions (the within-subjects effects).

Primary Hypothesis Test

We will test our primary study hypotheses using a series of four paired-samples t-tests, comparing participants' scores on global meaning in life judgments, mattering, purpose, and comprehension reported after each service. The sphericity assumption for each paired-samples t-test will be assessed using Mauchly's test, and if significant (and therefore the sphericity

assumption is not met), the Greenhouse-Geisser Estimate will be used as a degrees of freedom correction.

Exploratory Analyses

Moderation Effects. Using separate mixed linear mixed-effects models, we will explore whether religion variables such as personal religiosity (both intrinsic religiosity and religious commitment), denominational affiliation, and church attendance moderate potential main effects of church context on meaning in life. Regarding denominational affiliation, we will group participants into Mainline Protestant, Evangelical Protestant, and Black Protestant using the guidelines provided by the Pew Research Center (Pew Research Center, 2018).

We will also examine whether the variables related to similarity, comfort, and objections regarding each church service will moderate main effects of condition. The three variables of similarity, comfort, and objections are all measured twice: once after the high church service and once after the low church service. Therefore, separate variables for each of these services will be generated, such that there will be, for example, "high church similarity" and "low church similarity" variables used as separate possible moderators in two linear mixed-effects models.

Exploratory Outcomes. We will also conduct exploratory paired-samples t-tests with psychological richness, happiness, experiential appreciation, and self-concept clarity as respective outcome variables. This is to examine whether any observed effects of church context are unique to meaning in life over against other components of a good life (see, e.g., Oishi & Westgate, 2021 for a similar logic).

Finally, we will test whether high church contexts promote experiences of greater selfdiminishment and perceived vastness on the Awe Experiences Scale (Yaden et al., 2018) using a paired samples t-test, given that high church contexts may result in the sense of individual

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Appendix A

Demographics

Age

What is your age in years?

[Text entry]

Gender

What is your gender?

- 1. Man
- 2. Woman
- 3. Non-binary
- 4. I prefer to self-identify (please specify)

Sexual Orientation

What is your sexual orientation?

- 1. Heterosexual (straight)
- 2. Gay
- 3. Lesbian
- 4. Bisexual
- 5. Pansexual
- 6. Asexual
- 7. Other/I prefer to self-describe [Text entry]

What is your race? Please select all that apply.

- 1. Caucasian/White/European
- 2. African American/Black/Caribbean
- 3. Latino(a)(x)/Chicano(a)(x)/Mexican/etc.
- 4. East Asian (Korean, Japanese, Chinese, etc.)
- 5. Southeast Asian (Vietnamese, Filipino, Cambodian, etc.)
- 6. South Asian (Indian, Pakistani, Sri Lanka, etc.)
- 7. Indigenous (Native Hawaiian, Native American, Native Alaskan, etc.)
- 8. Pacific Islander (Samoan, Micronesian, Tahitian, etc.)
- 9. Middle Eastern (Arabic, Persian, Egyptian, etc.)
- 10. Multiracial/Biracial
- 11. Another identity (please specify)

Education

What is the highest level of education you have completed? If ongoing, please select the highest degree received.

- 1. Primary education (up to 8th grade)
- 2. High school diploma (or equivalent, such as GED)
- 3. Trade/Technical/Vocational training
- 4. Associate's degree
- 5. Bachelor's degree
- 6. Master's degree
- 7. Professional degree

- 8. Doctorate degree
- 9. Other (please specify)

Socioeconomic Status

Income

What is your household's annual household income?

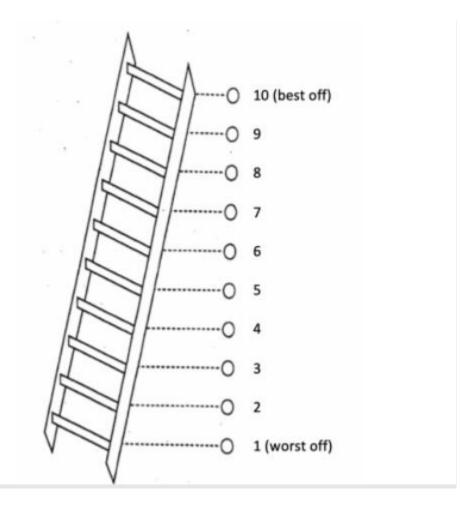
- 1. Under \$35,000
- 2. \$35,000 \$49,999
- 3. \$50,000 \$64,999
- 4. \$65,000 \$79,999
- 5. \$80,000 \$94,999
- 6. \$95,000 \$109,999
- 7. \$110,000 \$124,999
- 8. \$125,000 \$139,999
- 9. \$140,000 \$154,999
- 10. \$155,000 \$169,999
- 11. \$170,000 \$184,999
- 12. \$185,000 \$199,999
- 13. \$200,000 \$214,999
- 14. \$215,000 \$229,999
- 15. \$230,000 \$249,999
- 16. More than \$250,000

MacArthur Scale of Subjective Social Status

(Instructions) Imagine that this ladder pictures how American society is set up.

- At the top of the ladder are the people who are the best off they have the most money, the highest amount of schooling, and the jobs that bring the most respect.
- At the bottom are people who are worst off they have the least money, little or no education, no jobs or jobs that no one wants or respects.

Now think about your own life. Please tell us where you think you would be on this ladder, right now.



1. (worst off)

48

2.
 3.
 4.
 5.
 6.
 7.
 8.
 9. (Best off)

Political orientation

What is your political orientation?

Very	Conservative	Moderately	Moderately	Liberal	Very liberal
conservative		conservative	liberal		
1	2	3	4	5	6

Subjective financial situation

Considering your own income and the income from any other people who help you, how would you describe your overall personal financial situation? Would you say you:

- 1. Live comfortably
- 2. Meet needs with just a little left
- 3. Just meet basic expenses
- 4. Don't meet basic expenses

Religious Affiliation

- 1. Protestant
- 2. Roman Catholic
- 3. Orthodox Christian
- 4. Jewish
- 5. Muslim
- 6. Buddhist
- 7. Hindu
- 8. Mormon
- 9. Jehovah's Witness
- 10. Unitarian Universalist
- 11. Atheist
- 12. Agnostic
- 13. Something else (please specify)
- 14. Nothing in particular

Protestant Tradition Affiliation

(Instruction) Please indicate your denominational affiliation (if any).

- 1. Baptist
- 2. Methodist
- 3. Lutheran
- 4. Presbyterian
- 5. Pentecostal

- 6. Episcopalian or Anglican
- 7. Church of Christ or Disciples of Christ
- 8. Congregational or United Church of Christ
- 9. Holiness (Nazarenes, Wesleyan Church, Salvation Army)
- 10. Reformed (Reformed Church in America, Christian Reformed)

11. Church of God

- 12. Nondenominational or Independent Church
- 13. Something else (please specify)
- 14. None in particular

Denominational Affiliation

(If Baptist)

Which of the following Baptist churches, if any do you identify with most closely?

- 1. Southern Baptist Convention
- 2. American Baptist Churches in USA
- 3. Independent Baptist
- 4. National Baptist Convention
- 5. Progressive Baptist Convention
- 6. Other (please specify)
- 7. I don't know

(If Methodist)

Which of the following Methodist churches, if any, do you identify with most closely?

1. United Methodist Church

- 2. Free Methodist Church
- 3. African Methodist Episcopal
- 4. African Methodist Episcopal Zion
- 5. Christian Methodist Episcopal Church
- 6. Other (please specify)
- 7. I don't know

(If nondenominational or independent church)

Which of the following kinds of nondenominational churches, if any, do you identify with most

closely?

- 1. Nondenominational evangelical
- 1. Nondenominational fundamentalist
- 2. Nondenominational charismatic
- 3. Interdenominational
- 4. Other (please specify)
- 5. I don't know

(If Lutheran)

Which of the following Lutheran churches, if any, do you identify with most closely?

- 1. Evangelical Lutheran Church in America
- 2. Lutheran Church, Missouri Synod
- 3. Lutheran Church, Wisconsin Synod
- 4. Other (please specify)
- 5. I don't know

Which of the following Presbyterian churches, if any, do you identify with most closely?

- 1. Presbyterian Church USA
- 2. Presbyterian Church in America
- 3. Other (please specify)
- 4. I don't know

(If Pentecostal)

Which of the following Pentecostal churches, if any, do you identify with most closely?

- 1. Assemblies of God
- 2. Church of God Cleveland Tennessee
- 3. Church of God in Christ
- 4. Church of God in the Apostolic Faith
- 5. Other (please specify)
- 6. I don't know

(If Episcopalian or Anglican)

Which of the following Episcopalian or Anglican churches, if any, do you identify with most closely?

- 1. Episcopal Church in the USA
- 2. Anglican Church (Church of England)
- 3. Other (please specify)
- 4. I don't know

(If Christian Church, Church of Christ, Disciples of Christ)

Which of the following Christian Churches, if any, do you identify with most closely?

1. Church of Christ

- 2. Disciples of Christ
- 3. Other (please specify)
- 4. I don't know

(If Congregational or United Church of Christ)

- 1. United Church of Christ
- 2. Conservative Congregational Christian
- 3. Other (please specify)
- 4. I don't know

(If Holiness)

Which of the following Holiness churches, if any, do you identify with most closely?

- 1. Church of the Nazarene
- 2. Wesleyan Church
- 3. Free Methodist Church
- 4. Other (please specify)
- 5. I don't know

(If Reformed)

Which of the following Reformed churches, if any, do you identify with most closely?

- 1. Reformed Church in America
- 2. Christian Reformed Church
- 3. Other
- 4. I don't know

(If Church of God)

Which of the following Churches of God, if any, do you identify with most closely?

- 1. Church of God Anderson, Indiana
- 2. Church of God Cleveland, Tennessee
- 3. Church of God in Christ
- 4. Church of God of the Apostolic Faith
- 5. Other
- 6. I don't know

Church Attendance

How often do you attend a religious service (i.e., go to Church)?

- 1. Never
- 2. Yearly
- 3. A few times a year
- 4. Monthly
- 5. Weekly
- 6. More than once a week

Multidimensional Existential Meaning Scale (George & Park, 2017)

(Instructions) Please read the following items carefully. Using the response scale listed next to each item, indicate the extent to which you agree or disagree with that statement. *Please respond* to each item in terms of how you feel right now.

Strongly	Neither	Strongly
disagree	agree	Agree

nor

disagree

1 2 3 4 5 6 7 8 9 10 11	1	2	3	4	5	6	7	8	9	10	11
-------------------------	---	---	---	---	---	---	---	---	---	----	----

- 1. My life makes sense.
- 2. There is nothing special about my existence. (R)
- 3. I have aims in my life that are worth striving for.
- 4. Even a thousand years from now, it would still matter whether I existed or not.
- 5. I have certain goals that compel me to keep going.
- 6. I have overarching goals that guide me in my life.
- 7. I know what my life is about.
- 8. I can make sense of the things that happen in my life.
- 9. I have goals in life that are very important to me.
- 10. I understand my life.
- 11. Whether my life ever existed matters even in the grand scheme of the universe.
- 12. My direction in life is motivating to me.
- 13. I am certain that my life is of importance.
- 14. Looking at my life as a whole, things seem clear to me.
- 15. Even considering how big the universe is, I can say that my life matters.

Comprehension = 1, 7, 8, 10, 14

Purpose = 3, 5, 6, 9, 12

Mattering = 2, 4, 11, 13, 15

Multidimensional Meaning in Life (MIL) Scale (Costin & Vignoles, 2020)

(Instructions) Using the scale, please indicate your current feelings by selecting how much you agree or disagree with the following statements. *Please respond to each item in terms of how you*

feel right now.

Strongly			Neither							Strongly
disagree		agree								Agree
					nor					
	disagree									
1	2	3	4	5	6	7	8	9	10	11

- 1. My life as a whole has meaning.
- 2. My entire existence is full of meaning.
- 3. My life is meaningless. (R)
- 4. My existence is empty of meaning. (R)
- 5. I can make sense of the things that happen in my life.
- 6. Looking at my life as whole, things seem clear to me.
- 7. I can't make sense of events in my life. (R)
- 8. My life feels like a sequence of unconnected events. (R)
- 9. I have a good sense of what I am trying to accomplish in life.
- 10. I have certain life goals that compel me to keep going
- 11. I don't know what I am trying to accomplish in life. (R)
- 12. I don't have compelling life goals that keep me going. (R)

13. Whether my life ever existed matters even in the grand scheme of the universe.

14. Even considering how big the universe is, I can say that my life matters.

15. My existence is not significant in the grand scheme of things. (R)

16. Given the vastness of the universe, my life does not matter. (R)

Exploratory Measures

Religiosity Measures

Revised Intrinsic/Extrinsic Religiosity Scale (Gorsuch and McPherson, 1989)

Strongly	Disagree	Somewhat	Neither agree	Somewhat	Agree	Strongly
disagree		disagree	nor disagree	agree		agree
1	2	3	4	5	6	7

- 1. I enjoy reading about my religion.
- 2. It doesn't matter much what I believe so long as I am good. (R)
- 3. It is important to me to spend time in private thought and prayer.
- 4. I have often had a strong sense of God's presence.
- 5. I try hard to live all my life according to my religious beliefs.
- 6. Although I am religious, I don't let it affect my daily life. (R)
- 7. My whole approach to life is based on my religion.
- 8. Although I believe in my religion, many other things are more important in life.
- (R)

Strongly	Dis	sagree	Somewhat	Neither agree	Somewhat	Agree	Strongly		
disagree			disagree	nor disagree	agree		agree		
1		2	3	4	5	6	7		
	1. I oft	I often read books and magazines about my faith.							
	2. I make financial contributions to my religious organization.								
	3. I spend time trying to grow in understanding of my faith.								
	4. Religion is especially important to me because it answers many questions about								
the meaning of life.									
	5. My religious beliefs lie behind my whole approach to life.								
	6. I enj	joy spend	ling time wit	h others of my r	eligious affil	iation.			
	7. Reli	gious bel	iefs influenc	e all my dealing	gs in life.				
	8. It is	importan	nt to me to sp	end periods of t	ime in privat	e religious thou	ight and		
	reflectio	on.							
	9. I enj	joy worki	ing in the act	ivities of my rel	ligious organ	ization.			
	10. I keep well informed about my local religious group and have some influence in								
	its decis	sions.							

Religious Commitment Inventory (Worthington et al., 2003)

Self-Concept Clarity (Campbell et al., 1996)

(Instructions) Using the scale, please indicate your agreement with the following items. *Please* respond to each item in terms of how you feel right now.

Strongly	Disagree	Somewhat	Neither	Somewhat	Agree	Strongly
disagree		disagree	agree nor	agree		agree
			disagree			
1	2	3	4	5	6	7

- 1 2 3 4 5 6
- 1. My beliefs about myself conflict with one another. (R)
- 2. On one day I might have one opinion of myself and on another day I might have a different opinion. (R)
- 3. I spend a lot of time wondering about what kind of person I really am. (R)
- 4. Sometimes I feel I am not really the person that I appear to be. (R)
- 5. When I think about the kind of person I have been in the past, I'm not sure what I was really like. (R)
- 6. I seldom experience conflict between the different aspects of my personality.
- 7. Sometimes I think I know other people better than I know myself. (R)
- 8. My beliefs about myself seem to change very frequently. (R)
- 9. If I were asked to describe my personality, my description might end up being different from one day to another day. (R)
- 10. Even if I wanted to, I don't think I could tell someone what I'm really like. (R)
- 11. In general, I have a clear sense of who I am and what I am.
- 12. It is often hard for me to make up my mind about things because I don't really know what I want. (R)

Experience Appreciation scale (Kim et al., 2022)

respond to each item in terms of how you feel right now.									
Strongly	Disagree	Somewhat	Neither	Somewhat	Agree	Strongly			
disagree		disagree	agree nor	agree		agree			
			disagree						
1	2	3	4	5	6	7			

(Instructions) Using the scale, please indicate your agreement with the following items. *Please*

1. I have great appreciation for the beauty of life.

2. I appreciate a wide variety of experiences.

3. I appreciate the little things in life.

4. I take great interest in my daily activities.

5. I tend to find myself deeply engaged in conversations with other people.

Awe Experience Scale (AWE-S) (Yaden et al., 2018)

(Instructions) Using the scale, please rate the following items for how you felt during the

service you just took part in.

Strongly	Disagree	Somewhat	Neither	Somewhat	Agree	Strongly
disagree		disagree	agree nor	agree		agree
			disagree			
1	2	3	4	5	6	7

1. I sensed things momentarily slow down.

2. I noticed time slowing.

3. I felt my sense of time change.

- 4. I experienced the passage of time differently.
- 5. I had the sense that a moment lasted longer than usual.
- 6. I felt that my sense of self was diminished.
- 7. I felt my sense of self shrink.
- 8. I experienced a reduced sense of self.
- 9. I felt my sense of self become somehow smaller.
- 10. I felt small compared to everything else.
- 11. I had the sense of being connected to everything.
- 12. I felt a sense of communion with all living things.
- 13. I experienced a sense of oneness with all things.
- 14. I felt closely connected to humanity.
- 15. I had a sense of complete connectedness.
- 16. I felt that I was in the presence of something grand.
- 17. I experienced something greater than myself.
- 18. I felt in the presence of greatness.
- 19. I perceived something that was much larger than me.
- 20. I perceived vastness.
- 21. I felt my jaw drop.
- 22. I had goosebumps.
- 23. I gasped.
- 24. I had chills.
- 25. I felt my eyes widen.
- 26. I felt challenged to mentally process what I was experiencing.

27. I found it hard to comprehend the experience in full.

28. I felt challenged to understand the experience.

29. I struggled to take in all that I was experiencing at once.

30. I tried to understand the magnitude of what I was experiencing.

Psychologically Rich Life Questionnaire (Oishi et al., 2019)

(Instructions) Using the scale, please rate the following items for how you are feeling *right now*.

Strongly	Disagree	Somewhat	Neither agree	Somewhat	Agree	Strongly			
disagree		disagree	nor disagree	agree		agree			
1	2	3	4	5	6	7			
	1. My life has	been psycholo	ogically rich.						
	2. My life has been experientially rich.								
	3. My life has been emotionally rich.								
	4. I have had a lot of interesting experiences.								
	5. I have had a lot of novel experiences								
	6. My life has	been full of u	nique, unusual e	experiences					
	7. My life cons	sists of rich, in	ntense moments						
	8. I experience	e a full range o	of emotions via	first-hand exp	eriences such	n as travel and			
;	attending conce	rts							
1	9. I have a lot	of personal sto	ories to tell othe	rs.					
	10. On my deathbed, I am likely to say "I had an interesting life."								
	11. On my deathbed, I am likely to say "I have seen and learned a lot."								
	12. My life wou	ıld make a goo	od novel or mov	rie.					

Satisfaction With Life Scale (Diener et al., 1985)

(Instructions) Below are five statements with which you may agree or disagree. Using the 1-7 scale below, indicate agreement with each item. *Please respond to each item in terms of how you feel right now*.

Strongly	Disagree	Somewhat	Neither agree	Somewhat	Agree	Strongly				
disagree		disagree	nor disagree	agree		agree				
1	2	3	4	5	6	7				
1.	In most ways	n most ways, my life is close to my ideal.								
2.	The conditions of my life are excellent.									
3.	I am satisfied	I am satisfied with my life.								
4.	So far I have	So far I have gotten the important things I want in life.								
5.	If I could live	e my life ove	r, I would chang	ge almost noth	ing.					

Similarity, Comfort, and Objections Ratings

(Instructions) Below are four statements regarding the church service you attended. Please indicate your opinions on each item using the scales provided.

1. On a scale from 1 (extremely dissimilar) to 7 (extremely similar), how similar was this worship service to the one you typically attend?

2. On a scale from 1 (extremely uncomfortable) to 7 (extremely comfortable), how comfortable were you in this worship service?

3. On a scale from 1 (not objectionable) to 7 (extremely objectionable), how theologically objectionable did you find this worship service?

4. If you had theological objections to the form or content of this worship service, please share them with us. [Text response]

Manipulation Check

(Instructions) Below are two statements regarding the church service you attended. Some churches use a style of worship that gives relatively greater emphasis to ritual, priestly authority, sacraments, and history/tradition, while other churches use a style of worship that gives relatively little emphasis to ritual sacraments, and church authority, and instead tends to emphasize modernism. Using the 1–7 scale below, indicate your opinions on each item.

1. The church service I just participated in gave...

relatively l	ittle emphasis					
to ritual sac	raments, and				greater em	phasis to ritual,
church aut	hority, and				priestly	authority,
instead tends to emphasize					sacram	nents, and
modernism					history	/tradition
1	2	3	4	5	6	7

Appendix B

Outlines of the Liturgies

High Church Liturgy

1. Officiant reads Psalm 19:14:

"Let the words of my mouth and the meditation of my heart be always acceptable in thy sight, O Lord, my strength and my redeemer."

- 2. Hymn (sung collectively)
- 3. Officiant reads Psalm 19:14:

"Let the words of my mouth and the meditation of my heart be always acceptable in thy sight, O Lord, my strength and my redeemer."

4. Officiant and People together, all kneeling:

"Almighty and most merciful Father,

we have erred and strayed from thy ways like lost sheep,

we have followed too much the devices and desires of our

own hearts,

we have offended against thy holy laws,

we have left undone those things which we ought to

have done, and we have done those things which we ought not to

have done.

But thou, O Lord, have mercy upon us,

spare thou those who confess their faults,

restore thou those who are penitent,

according to thy promises declared unto mankind

in Christ Jesus our Lord;

and grant, O most merciful Father, for his sake,

that we may hereafter live a godly, righteous, and sober life,

to the glory of thy holy Name. Amen."

The Officiant alone stands and says:

"The Almighty and merciful Lord, grant us absolution and remission of all our sins, true repentance, amendment of life, and the grace and consolation of his Holy Spirit. *Amen.*"

- 5. Hymn
- 6. Gospel reading (with procession): Matthew 3:1-17 OR Matthew 4:1-17
- 7. The Lord's Prayer:

The People kneel

OfficiantThe Lord be with you.PeopleAnd with thy spirit.

Officiant Let us pray.

Officiant and People

Our Father, who art in heaven,

hallowed be thy Name,

thy kingdom come,

thy will be done,

on earth as it is in heaven.

Give us this day our daily bread.

And forgive us our trespasses,

as we forgive those who trespass against us.

And lead us not into temptation,

but deliver us from evil.

For thine is the kingdom, and the power, and the glory,

for ever and ever. Amen.

8. Great Litany:

O God the Father, Creator of heaven and earth,

Have mercy upon us.

O God the Son, Redeemer of the world,

Have mercy upon us.

O God the Holy Ghost, Sanctifier of the faithful, Have mercy upon us.

O holy, blessed, and glorious Trinity, one God,

Have mercy upon us.

Remember not, Lord Christ, our offenses, nor the offenses of our forefathers; neither reward us according to our sins. Spare us, good Lord, spare thy people, whom thou hast redeemed with thy most precious blood, and by thy mercy preserve us, for ever.

Spare us, good Lord.

From all evil and wickedness; from sin; from the crafts and assaults of the devil; and from everlasting damnation, Good Lord, deliver us.

From all blindness of heart; from pride, vainglory, and hypocrisy; from envy, hatred, and malice; and from all want of charity,

Good Lord, deliver us.

From all inordinate and sinful affections; and from all the deceits of the world, the flesh, and the devil,

Good Lord, deliver us.

From all false doctrine, heresy, and schism; from hardness of heart, and contempt of thy Word and commandment, Good Lord, deliver us.

From lightning and tempest; from earthquake, fire, and

flood; from plague, pestilence, and famine,

Good Lord, deliver us.

From all oppression, conspiracy, and rebellion; from violence, battle, and murder; and from dying suddenly and unprepared,

Good Lord, deliver us.

By the mystery of thy holy Incarnation; by thy holy Nativity and submission to the Law; by thy Baptism, Fasting, and Temptation,

Good Lord, deliver us.

By thine Agony and Bloody Sweat; by thy Cross and Passion; by thy precious Death and Burial; by thy glorious Resurrection and Ascension; and by the Coming of the Holy Ghost, Good Lord, deliver us.

In all time of our tribulation; in all time of our prosperity; in the hour of death, and in the day of judgment,

Good Lord, deliver us.

We sinners do beseech thee to hear us, O Lord God; and that it may please thee to rule and govern thy holy Church Universal in the right way,

We beseech thee to hear us, good Lord.

That it may please thee to illumine all bishops, priests, and deacons, with true knowledge and understanding of thy Word; and that both by their preaching and living, they may set it forth, and show it accordingly,

We beseech thee to hear us, good Lord.

That it may please thee to bless and keep all thy people,

We beseech thee to hear us, good Lord.

That it may please thee to send forth laborers into thy harvest, and to draw all mankind into thy kingdom, We beseech thee to hear us, good Lord.

That it may please thee to give to all people increase of grace to hear and receive thy Word, and to bring forth the fruits of the Spirit,

We beseech thee to hear us, good Lord.

That it may please thee to bring into the way of truth all such as have erred, and are deceived,

We beseech thee to hear us, good Lord.

That it may please thee to give us a heart to love and fear thee, and diligently to live after thy commandments,

We beseech thee to hear us, good Lord.

That it may please thee so to rule the hearts of thy servants, the President of the United States (*or* of this nation), and all others in authority, that they may do justice, and love mercy, and walk in the ways of truth,

We beseech thee to hear us, good Lord.

That it may please thee to make wars to cease in all the world; to give to all nations unity, peace, and concord; and to bestow freedom upon all peoples,

We beseech thee to hear us, good Lord.

That it may please thee to show thy pity upon all prisoners and captives, the homeless and the hungry, and all who are desolate and oppressed,

We beseech thee to hear us, good Lord.

That it may please thee to give and preserve to our use the bountiful fruits of the earth, so that in due time all may enjoy them,

We beseech thee to hear us, good Lord.

That it may please thee to inspire us, in our several callings, to do the work which thou givest us to do with singleness of heart as thy servants, and for the common good, We beseech thee to hear us, good Lord.

That it may please thee to preserve all who are in danger by reason of their labor or their travel,

We beseech thee to hear us, good Lord.

That it may please thee to preserve, and provide for, all women in childbirth, young children and orphans, the widowed, and all whose homes are broken or torn by strife, We beseech thee to hear us, good Lord.

That it may please thee to visit the lonely; to strengthen all who suffer in mind, body, and spirit; and to comfort with thy presence those who are failing and infirm,

We beseech thee to hear us, good Lord.

That it may please thee to support, help, and comfort all who are in danger, necessity, and tribulation,

We beseech thee to hear us, good Lord.

That it may please thee to have mercy upon all mankind,

We beseech thee to hear us, good Lord.

That it may please thee to give us true repentance; to forgive us all our sins, negligences, and ignorances; and to endue us with the grace of thy Holy Spirit to amend our lives according to thy holy Word,

We beseech thee to hear us, good Lord.

That it may please thee to forgive our enemies, persecutors, and slanderers, and to turn their hearts, We beseech thee to hear us, good Lord.

That it may please thee to strengthen such as do stand; to comfort and help the weak-hearted; to raise up those who fall; and finally to beat down Satan under our feet, We beseech thee to hear us, good Lord.

That it may please thee to grant to all the faithful departed eternal life and peace,

We beseech thee to hear us, good Lord.

That it may please thee to grant that, in the fellowship of

[______ and] all the saints, we may attain to thy

heavenly kingdom,

We beseech thee to hear us, good Lord.

Son of God, we beseech thee to hear us.

Son of God, we beseech thee to hear us.

O Lamb of God, that takest away the sins of the world,

Have mercy upon us.

O Lamb of God, that takest away the sins of the world,

Have mercy upon us.

O Lamb of God, that takest away the sins of the world,

O Christ, hear us.

O Christ, hear us.

Lord, have mercy upon us.

Christ, have mercy upon us.

Lord, have mercy upon us.

The Officiant concludes with the following or some other Collect

Let us pray.

Almighty God, who hast promised to hear the petitions of those who ask in thy Son's Name: We beseech thee mercifully to incline thine ear to us who have now made our prayers and supplications unto thee; and grant that those things which we have asked faithfully according to thy will, may be obtained effectually, to the relief of our necessity, and to the setting forth of thy glory; through Jesus Christ our Lord. Amen.

- 9. Hymn
- 10. Benediction/dismissal:

Go in peace to love and serve the Lord.

Thanks be to God.

Low Church Liturgy

- 1. Contemporary worship song
- 2. Greeting by officiant
- 3. Prayer led by officiant
- 4. Contemporary worship song
- 5. Gospel reading (without procession): Matthew 3:1-17 OR Matthew 4:1-17
- 6. The Lord's Prayer:

Our Father in heaven,

hallowed be your name

your kingdom come,

your will be done,

on earth as in heaven.

Give us today our daily bread.

Forgive us our sins

as we forgive those who sin against us.

Lead us not into temptation

but deliver us from evil.

For the kingdom, the power,

and the glory are yours

now and forever.

Amen.

- 7. A time of open prayer and contemplation.
- 8. Contemporary worship song
- 9. Dismissal:

"Go in peace to love and serve the Lord."