



Article

The Sociology of Prayer: Dimensions and Mechanisms

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Abstract: The sociology of prayer has a long history and routinely stresses the centrality of prayer to religious belief and ritual solidarity. Still, we have struggled to clearly define the parameters of prayer and the various components of this ubiquitous practice. Drawing from a comprehensive literature review of prayer research, we propose that there are four conceptually distinct dimensions of the private prayer experience which vary across religious cultures and traditions; they are (1) the *quantity* of prayer, (2) the *style* of prayer, (3) the *purpose* of prayer, and (4) *prayer targets*. Our proposed measures of these dimensions offer researchers a framework to better theorize and investigate the social mechanisms which produce variation in prayer as well as the individual and social outcomes of prayer. In particular, we discuss how each prayer dimension fits within specific theoretical framings to better test the extent to which the emotional, rational, and behavioral elements matter to prayer outcomes.

Keywords: prayer; mechanisms; framework; ritual; belief; religion

1. Introduction

A vast majority of humans pray daily. From folk to high church religions, prayer is a constant across religious history (Levin and Taylor 1997; Bellah 2011). In general, we know that prayer is a source of social solidarity and conflict (Layman 2001; O'Reilly 1995), an individual and collective ritual which creates an ongoing symbolic interaction with the divine realm (Collins 2004; Draper 2019), and a mechanism which enhances confidence in the supernatural (Stark 2017). In sum, as William James (1902) noted, prayer is "the very soul and essence of religion."

The experience of prayer is multidimensional; it is physical, emotional, conceptual, and social. Yet studies of prayer have tended not to address its many dimensions. Quantitative studies of the prayer experience tend to measure "prayer" in terms of frequency, a variable which falls far short of indicating the totality of the phenomenon. Qualitative studies are better able to capture the emotional and conceptual elements of prayer but tend to be limited to specific religious groups and traditions. In addition, these studies often fail to establish conceptual categories and causal mechanisms which could be applied to a vast range of prayer experiences. This paper is an attempt to (1) provide a theoretical framework for how to measure the many dimensions of the prayer experience, and (2) suggest mechanisms by which these dimensions of the prayer experience affect both individual and social outcomes.

The universality of prayer makes its variation considerable. Different religious traditions, cultural norms, and historical eras produce a vast array of prayer types and meanings (Baesler 2001; Black et al. 2015, 2017; Chakraborty 2015; Hammerling 2008). In order to methodically understand this variation, we propose four separate dimensions of *the prayer experience*. They are (1) prayer *quantity*, which is comprised of the length, frequency, and consistency of praying; (2) prayer *style*, which indicates the extent to which specific rules guide a person in prayer, including how prayer is embodied, articulated, and formalized; (3) prayer *purpose*, which is what the practitioner says they are trying to accomplish with prayer; and (4) *prayer targets*, which indicates the supernatural prayer partner. While



Citation: Froese, Paul, and Rory Jones. 2021. The Sociology of Prayer: Dimensions and Mechanisms. *Social Sciences* 10: 15. https://doi.org/10.3390/socsci10010015

Received: 16 December 2020 Accepted: 7 January 2021 Published: 10 January 2021

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individuals do not always pray to "God" and sometimes communicate with deceased loved ones, ghosts, spirits, and vague essences, it is important to note the personality characteristics of communication partner; and image of God literature provides a framework for this research. In addition, these four dimensions of prayer can be measured and compared across religious traditions. While most of current prayer research focuses mainly on a Western Christian context, our four proposed dimensions of the prayer experience are not Christian specific and will be key variables in determining how prayer varies cross-culturally.

Another key aspect of prayer is whether it is practiced in private or in a group. The study of group rituals is well developed in the sociological literature and mainly focuses on the ability of groups to produce shared emotion, symbols, and beliefs (Durkheim 1995; Collins 2004). But approaching prayer as solely as group ritual fails to capture the fact that prayer is often a private practice; our current proposal seeks to better establish the dimensions of private prayer to determine the extent to which individuals can replicate the experience of a collective ritual or if the individual experience of prayer is qualitatively different. Therefore, we propose that prayer needs to be studied as a private ritual.

First, we postulate that these four dimensions of the private prayer experience are inter-related and combine to produce different experiences ranging in their overall intensity. In particular, we propose that the emotional resonance and content of the prayer experience will be crucial in understanding its power, ubiquity, and recurrence. Drawing from Collin's Interaction Ritual (IR) Theory (Collins 2004; also see Draper 2019), we argue that the felt emotional experience of prayer is the mechanism by which prayer affects belief, behavior, and belonging. For instance, a higher volume of prayer could produce feelings of tranquility due to its familiarity or, conversely, create anxiety as an obligation that cannot be missed. Similarly, more strict styles of prayer could evoke feelings of moral superiority because one is "doing prayer the correct way" or, instead, prayer rules could feel constrictive and isolating from others. Winchester and Guhin (2019) capture this prayer paradox, showing how prayer can be both a source of problems and a solution to them when the goal of prayers is to approach God sincerely. The emotional resonance of variations in volume, style, purpose, and prayer targets indicate how prayer is experienced by the individual.

In addition, different dimensions of the prayer experience can be connected to different prayer outcomes. For instance, the *quantity* of prayer measures the presence of routine and helps to test the effects of prayer on well-being over the life course; it can also indicate the physiology of the moment and direct aftermath of prayer. Prayer *styles* can suggest when social and group boundaries are most strict and regarding the cultural context of a practice indicate levels of *religious tension*. The *purpose* of prayer relates directly to the beliefs of the individual and tests the extent to which supernatural *expectations* guide behavior and establish worldviews. Of particular interest is how the purpose of prayer reinforces or conflicts with specific political and scientific worldviews. Finally, prayer targets bring *attachment theory* into the supernatural realm. To whom a person prays might say a lot about the emotional and social disposition of a believer.

Overall, the experience of prayer illustrates how received practices and symbols alter emotional states, moral perceptions, and social identities to produce different ways of seeing and being in the world. Mauss (Mauss 2003, p. 36) states it simply: "While it takes place in the mind of the individual, prayer is above all a social reality outside the individual and in the sphere of ritual and religious convention." This basic insight provides the foundation for the sociology of the prayer experience. Beginning with the fact that the meaning and practice of prayer are socially guided, the prayer experience then creates a different *reality* for the practitioner. This reality, once aroused, offers believers the ability to communicate privately and directly with the divine on their own. For this reason, private prayer is an excellent example of how socially constructed behaviors and beliefs become embedded and developed in individual practices.

The sociology of prayer then seeks to understand how various social sources, such as the family, religious institutions, the state, civil society, and commercial and regional culSoc. Sci. 2021, 10, 15 3 of 18

tures determine variation in the individual experience of prayer. Once formed, the prayer experience will, in turn, produce distinct emotional reactions which will create outcomes at the individual and collective levels. To this end, we propose how individual variation in the prayer experience can be measured and how these measures relate to hypothesized outcomes.

What Is Prayer?

At root, prayer is a "communication addressed to [G]od or [G]ods" (Stark 2017, p. 45). We also note that many people speak with deceased loved ones and spirits during prayer (ap Siôn 2016). As a private practice, prayer is distinct from other rituals which often require an event, gathering, or collective focus of attention. A prayer experience can be individually generated but requires a sustained level of uninterrupted inner concentration. In prayer, the individual deliberately shifts their attention, what Woodhead (2016, pp. 224–25) describes as "changing the subject" in one's mind, in order to (1) externalize one's concerns, (2) see reality through "God's eye view," and (3) intentionally relate to others. In sum, a person in prayer is systematically attempting to shift their consciousness to a different reality in order to communicate with the divine. When successful, prayer unlocks an experience through which practitioners interact with the divine and can sometimes literally hear God "talk back" (Luhrmann 2013).

Reality is defined by Berger and Luckmann (1966, p. 1) as "a quality appertaining to phenomena that we recognize as having a being independent of our own volition." In the case of prayer, the practitioner can have a transcendent experience which "has been defined as an event or state that 'typically evokes a perception that human reality extends beyond the physical body and its psychosocial boundaries." (Levin 2020, p. 61). In fact, Stark (2017, p. 46) argues that a key aspect of prayer is to evoke a transcendent experience which will "reassure humans that religious phenomenon are real." In this way, prayer has a recursive quality, where the individual discovers spiritual concepts and emotions through the practice of prayer, which in turn changes the practice and its meaning recurrently.

In the case of prayer, as with all ritual endeavors, a sacred reality is unleashed by a social reality. Collins (2004, p. 7) explains that "ritual is a mechanism ... producing a momentarily shared reality, which thereby generates solidarity and symbols of group membership." And ritual participants often feel a sense of social acceptance and emotional uplift long after the activity is completed (Draper 2014, 2019). So, a person who engages in the ritual of prayer does not feel alone or irrational in her activity because she is engaged in a socially recognized and accepted practice. As such, the sociology of prayer is best situated to understand the effects of prayer because they are tied to the perceptions and feelings that participants experience from socially established practices. As Levin (2020, p. 86) warns, scientific methods "cannot possibly prove or disprove actions of a presumably supernatural being that may exist in part outside of the physical universe." Consequently, the experience of prayer lies firmly within the purview of social causation.

As Mauss (Mauss 2003, p. 36) advocated, "Instead of seeing in individual prayer the principle behind collective prayer, we are making the latter the principle behind the former." Both the concept of a divine "other" and the means to communicate with that God are based in social traditions (Draper 2014, 2019). The individual does not invent them. And the social conventions of prayer dictate both internal and external processes, determining what we expect and then ultimately experience in the act of prayer. Churches, mosques, temples, and other less organized religious groups define the practical matters of prayer—how often, how long, and to what end—which individuals embrace in their daily spiritual lives. Simultaneously, these institutions and communities provide the worldviews and theologies which explain the purpose of prayer. Armed with these deep systems of meaning, the prayer experience becomes real. Simmel (1997, p. 131) noted the paradox of this situation, explaining that "we believe in God because we feel Him, although we really cannot feel Him until we have accepted His existence."

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The prayer target helps distinguish private prayer from meditation. Eastern forms of meditation and mindfulness do not seek to communicate with supernatural targets, and therefore fall outside the scope of our current discussion (Brown 2013). While certain forms of meditation *can* mimic prayer, not all do. There are also significant historical, religious and philosophical differences between modern strains of Western meditation and traditional Eastern meditation (West 2016). Western meditation is often a secular practice that is typically pursued for training of mindfulness (Stratton 2015). Bartkowski et al. (2017) compared prayer and meditation as anxiety inhibitors and found positive correlations between communal prayer and anxiety, but no association between meditation and anxiety.

In order to better analyze how the reality of the supernatural is established and how prayer is utilized to evoke an experience of this reality, we need to begin with how the experience of prayer varies socially and culturally. We can then begin to hypothesize how these variations are theoretically predictive of varied outcomes.

2. Dimensions of Prayer

Having defined prayer as a communication with Gods, prayer varies most clearly with types of Gods, which are the cultural products of distinct histories, narratives, and theologies (Stark 2017). Consequently, it is the social context of both belief in Gods and prayer which determines their meaning and significance. The social structural elements which most clearly influence the experience of prayer are (i) the family, (ii) religious institutions, iii) the state (or political authority), (iv) civil society, and (v) commercial culture (Asad 2003; Boyatzis et al. 2005; Pravdová and Radošinská 2013). All play distinct roles and indicate different social mechanisms affecting prayer. But in order to specify these mechanisms, we need to first establish how we think about and measure differences in prayer. By re-conceptualizing past research, we advocate four distinct dimensions of the prayer experience which are expected to vary across religious traditions, demographic groups, and national cultures. They are: (1) the *quantity* of prayer, (2) the *style* of prayer, (3) the *purpose* of prayer, and (4) *prayer target(s)* (see Table 1). We will explore these indicators, their intensity, and their theoretical import in turn.

| | Lower Intensity | Higher Intensity |
|---------------|---|--|
| Quantity | Low (shorter and less frequent) | High (longer and more frequent) |
| Style | Free (few rules) | Bounded (many rules) |
| Purpose | Inner (seeking change in mood or perspective) | Outer (seeking change in external world) |
| Prayer Target | Distant (abstract and indirect) | Engaged (distinct and active) |

2.1. Quantity

Prayer frequency is one of the most used measures of prayer (Wuthnow 2015). While it tells us nothing about the content or style of prayer, frequency of prayer indicates how ubiquitous and routine prayer is in someone's life. In addition, frequency of prayer varies greatly and often predictably between cultures and groups. For instance, people in industrial and post-industrial countries pray less often than those in agrarian societies, suggesting a secularizing effect in modern life (Norris and Inglehart 2004). Yet the vast majority of individuals in post-modern cultures still pray even though they pray less (Norris and Inglehart 2004). And prayer, like belief in God, remains in largely secular cultures even as religious institutions continue to lose members. For instance, many Americans who do not belong to any religious group pray regularly (Gallup 1985). So,

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while the religious membership and the modernity of one's culture strongly predict how much one prays, prayer persists in secular and unchurched environments.

Demographics are strongly related to how often an individual prays. In the United States, women are more likely to pray than men (Baker 2008; Spilka et al. 2003); adults are more likely to pray than children (Mason 2016); and church attenders and civically engaged individuals tend to pray the most (Mason 2016). The elderly, African Americans, and church-attending Protestants are, on average, likely to pray three or more times a day (Levin and Taylor 1997). And among Americans, "an inverse relationship between income level and an active prayer life is apparent," (Baker 2008, p. 175). Frequency of prayer is also positively related to charitable giving and volunteerism, regardless of one's religious tradition or church membership (Brooks 2007).

Overall, frequency of prayer is an important indicator of an individual's religious lifestyle. It suggests how deeply embedded a religious or supernatural reality is in someone's perspective and behavior. To this, we would add how much time people spend in prayer and how consistently they pray. Together, frequency of prayer, length of prayer, and consistency of prayer create a sense of the *quantity* of prayer existing in a person's day to day life. Individuals who pray often for long periods of time have a high *quantity* of prayer, while those who pray less for shorter periods have a low *quantity*. The variation between high and low *quantity* reveals the extent to which prayer is a constant and dominant force in the life course of practitioners.

Prayer *quantity*, by itself, tends not to be related to social or political attitudes and behaviors. Although there is evidence to demonstrate that those who are civically engaged pray more often (Mason 2016), Loveland et al. (2005) found that prayer was not associated with membership in political organizations, raising "doubts about whether prayer matters for political engagement" (p. 12). In addition, people who pray regularly are *not* more likely to oppose LGBTQ rights, advocate gender traditionalism, or be affiliated with the Republican Party.

A vast literature ties the frequency of prayer to health and healthy life course behaviors (Levin 2016, 2020; Poloma and Pendleton 1989). The health effects of prayer are sometimes hypothesized to be a function of how prayer correlates with a host of lifestyle behaviors (McCaffrey et al. 2004; O'Connor et al. 2005; Wachholtz and Sambamoorthi 2011) and/or an outcome of the accumulated physiological and psychological therapeutic effects of prayer. For instance, Newberg and Waldman (2009) found that contemplative prayer (an inner prayer purpose) consistently practiced has a beneficial effect on memory and slows down the neurological damage of aging. Still, some prayer purposes can be damaging to the brain, if they are focused on things that make you frightened or angry (Newberg and Waldman 2009). Perhaps due to this dual process, Ellison et al. (2009) found that prayer frequency is unrelated to anxiety or tranquility. The authors suggest incorporating the varieties of prayer activities and practices to understand which specific prayers yield the greatest reductions in anxiety. In other words, the relationship between prayer volume and its health benefits may depend on other variations in the prayer experience. As such, prayer quantity measures a religious lifestyle, yet what kind of routine (good, bad, or indifferent) prayer ultimately becomes within each life must be measured separately.

2.2. Style

A central theme in the study of religious faith is that non-empirical beliefs are sustained in groups; faith requires that we see and hear others who share that faith (Stark and Finke 2000). Ritual activity is an ideal way to demonstrate one's faith to others and helps confirm the beliefs and practices of a community. *Styles* of prayer, or the rules governing what constitutes a legitimate prayer, create boundaries and conventions around which members of a community can confidently communicate piety and faith to one another.

Anthropologists of religion have paid close attention to variation in styles of prayer, studying how declining religious cultures adhere to unique practices and behaviors (Wuthnow 2015). Of particular interest is the symbolic import of the movements, pageantry, and

process surrounding prayer, each communicating something central to the identity and ideals of a community (Draper 2019). By explicating the cultural rules governing prayer styles, anthropologists bring us closer to understanding the social and individual significance of culturally specific prayer acts. And as Winchester (2008) shows, adherence to prescribed prayer norms can help converts to a religious community develop a new moral habitus, in which they learn a new set of dispositions about what is right and wrong. While the symbolism of each prayer style varies across groups and cultures, the overarching meaning remains consistent—namely, a prayer style helps to determine whether communication with the supernatural has actually occurred. Proper style legitimates the practice and the practitioner.

From a religious economies perspective, prayer style could indicate levels of religious tension. *Tension* refers to the how different or unique a religious adherent appears within the larger culture (Stark and Bainbridge 1985). Strict and idiosyncratic styles of prayer suggest tension depending on the cultural context. In simpler terms, the more rules and regulations a religious community imposes on prayer, the more costly that religious practice becomes. Consequently, we need to pay attention to how many and how strict the rules governing prayer are, rather than the specific rubrics and symbolism of each rule. The rules themselves, regardless of their form, serve to promote exclusionary theologies and identities. Prayer styles then vary from being heavily "bounded" with numerous regulations and conventions to being openly "free" of any restraints. A freer prayer style makes fewer demands on the practitioner who is at liberty to communicate with the divine in any way she sees fit.

Prayer *styles* will tell us how religious communities regulate faith and piety in ritual form. Communities with members who adhere to strict prayer styles should be in more tension with the larger culture but should also report deeper levels of belief and commitment. This is predicted by Strict Church Theory (Iannaccone 1994; Iannaccone and Bainbridge 2009; Kelley 1972; Stark and Finke 2000). In contrast, individuals who adhere to no specific prayer style may avoid the strictures of exclusive religious communities but also may fail to generate the same levels of faith. As such, prayer *styles* tell us something about the exclusivity and costliness of an individual's religious life, but they fall short of revealing the prayer's conceptual content.

The sociology of religion has long studied the pathways through which religious groups establish systems of belief and ways of life. Religious groups vary in their social exclusivity and moral absolutism and these factors directly influence the experience and behaviors of members. Moral strictness increases the potency and effect of rituals by filtering out free riders (membership exclusivity) and projecting confidence in one's faith (moral absolutism) (Iannaccone 1994; Iannaccone and Bainbridge 2009; Kelley 1972; Stark and Finke 2000). Logically, stricter groups will have more regulations and suggestions concerning the style of prayer. In fact, these restrictions will be an important part of the mechanism to rid the group of free riders. For instance, a prescriptive daily prayer schedule can be a heavy cost to a religious adherent and will not be practiced by casual believers, leading to their eventual break with a group demanding that level of commitment. Consequently, conservative religious communities should promote highly regulated styles of prayer. More lax religious groups or individuals without a religious membership will tend toward freer prayer styles.

The style of prayer is a powerful symbol of collective identity and is "used to bridge differences within group settings marked by diversity" (Braunstein et al. 2014). Group prayer functions to highlight "potential inclusivity" and can weaken "religious differences within the group by deepening, understanding, building trust, and demonstrating respect" (Braunstein et al. 2014, p. 715). Prayer often symbolizes a concern for community and is associated with membership in specific types of civic action groups, particularly those focusing on the needs of the individual (Loveland et al. 2005; Pattillo-McCoy 1998).

Prayers may also be performed in a "semi-involuntary" way because of social pressures (Sherkat and Cunningham 1998). In the United States, bowing one's head in prayer is

an activity employed by religious, political, and cultural leaders to express moral legitimacy and request God's assistance in achieving individual and collective goals, though this may not be their preferred prayer style. This performed activity renews participants' feelings of social solidary and shared purpose (Braunstein et al. 2014). For this reason, public praying has always been an aspect of American political theater (Domke and Coe 2008).

In some cases, prayer strengthens the expected political opinions of a group, in both liberal and conservative directions. For instance, Leege et al. (1993) found that, for black respondents, praying was predictive of opposition to the death penalty, support for affirmative action, and likelihood of identifying as Democrat. Lenski (1963) found that prayer was related to support for school racial and ethnic integration and state involvement in social problems. Still, among whites, Kersten (1970) found that saying grace was associated with Republican affiliation, voting for Republicans, and opposition to LGBT issues. Perhaps the political theater of prayer increases one's confidence in one's political opinions regardless of the underlying political ideology; Poloma and Gallup (1991, p. 78) argued that "one of the fruits of prayer is a heightened political awareness that lessens the separation between the private religious side and the public political side of life" (also see Sherkat and Cunningham 1998). Consequently, we expect that the style of prayer will be closely connected to both religious and political identity and provide clear indications of social and cultural boundaries.

2.3. Purpose

Praying means different things to different people and the content of prayer is, in fact, extremely broad and diverse (Asad 1993; Galonnier and Rios 2016, p. 72; Luhrmann 2013; Mahmood 2004). Brown (1994) argues what individuals pray about is much more important than how often they pray, and many researchers agree. What matters more than what or how often you do something is why you are doing it. The *purpose* of prayer records why practitioners say they enter into prayer. And it represents the rational aspect of prayer or at least how practitioners rationalize the activity to themselves. As we will explain later, how purpose connects to the affective and traditional parts of prayer should prove important to prayer outcomes. In addition, purpose can shift over time and or "unfold" as practitioners develop distinctive relationships with their prayer target or discover unforeseen dynamics of prayer.

We expect that the purpose of prayer will vary most across religious traditions because each religious culture will intellectually contextualize their meanings differently. In the United States, a mainly Christian context, prayer is nearly universally believed to be an effective means to solve personal and social problems (Ellison and Burdette 2012). Hunter (1990) found that a majority of Americans feel that prayer before and during government sessions, school activities, and sporting events leads to greater success. A basic stated purpose of prayer, consequently, is that supplication to and communication with God will produce positive individual and social outcomes. Still, the specific intentions of prayer are often idiosyncratic. To capture the diversity of purpose in prayer, researchers have developed several typologies of prayer.

Probably the most important types of prayers, from a sociological perspective, are ones in which the practitioner is asking God for an *in-this-world* blessing to fill some specific need; these are commonly referred to as prayers of "petition" (Janssen et al. 1990). Petitionary prayers are the stereotypical examples of what a person in prayer does—ask God for *something concrete*, be it a sign, a healing, or an economic windfall. For this reason, the content of petitionary prayers should directly map onto individual life problems and goals.

Unsurprisingly, there is a direct link between petitioning God for something and social alienation; in the United States, petitionary prayer is most common among African-Americans, those with lower incomes, and people with lower levels of educational attainment (Baker 2008; Krause and Chatters 2005; Spilka et al. 2003). Of things requested, personal health is one of the most popular. The 2005 Baylor Religion Survey indicated that

the last time people prayed, over 60% of the American public prayed for better health while only one-third (34%) requested financial security. Data from the Centers of Disease Control also show that 43 percent of Americans said they asked for improved health in the last prayer they made (Barnes et al. 2004). And a 1998 national survey found that 75 percent of Americans pray for their general health and 22 percent pray for "improvement of specific conditions" (Brown 2012, p. 1).

Luhrmann (2013) is careful to remind researchers that not all religious communities ask congregants to seek a response from God in their prayer. And Brown (2012) notes that among those she studied, most seem to see prayer as cumulative and long term in its effects. So, beyond the popular purpose of wanting health and prosperity, believers pray for many non-petitionary reasons. These reasons can be extensive and tied to specific theological framings of what God wants and demands from the faithful. An exhaustive list of non-petitionary prayer "types" is therefore long and often confusing. A recurring problem with all typologies of prayer's purpose is that categories often overlap and can become conflated, which create problems in measurement (Mason 2016). In turn, studies which rely heavily on prayer purpose typologies can produce results which are mainly artifacts of the typology used (Sharp 2012a). In sum, measuring the purpose of prayer comes with its own unique set of difficulties.

Still, it is important to make the distinction that not all prayers are petitioning God (Richards 1991). Poloma and Gallup (1991; see also Poloma and Pendleton 1989) indicate that many prayers are intended for ritual, meditative, or conversational purposes. To this, Ladd and Spilka (2006) add the categories of prayers of "intercession, suffering, examination, sacrament, rest, tears, and radicalism." Their factor analysis in search of a "general prayer factor" posits three dimensions along which prayers are focused: inward, outward, and upward (Ladd and Spilka 2006).

Bade and Cook (2008) add to these growing typologies by dividing responses to the question: "In what ways do you use prayer to deal with personal difficulties?" into the following categories: (1) seeking God's help to handle difficulties, (2) seeking direction, (3) focusing on others, (4) focusing on the situation, (5) asking for resources, (6) gaining a sense of calm and focus, (7) meditating and reflecting, (8) seeking resources, (9) giving control to God, (10) putting faith and trust in God, and (11) acknowledging lack of control to God. These categories ultimately map onto four prayer coping styles: (1) emotion management, (2) re-appraisal, (3) problem engagement, and (4) avoidance (Bade and Cook 2008). Bade and Cook's coping typology mirrors Pargament et al. (2005, p. 482) discussion of the "five key religious functions" of religious practices: "the search for meaning, the search for mastery and control, the search for comfort and closeness to God, the search for intimacy [with others] and closeness to God, and the search for a life transformation" (see also Pargament et al. 2000).

At first, loosely categorizing the extent to which practitioners think that prayer is mainly about *petitioning* the divine's action in the world provides a necessary but simpler continuum of purpose. Put plainly, some practitioners believe that prayer can unleash a supernatural reality to literally change the world while others see the effects of prayer as changing the way we *experience* the world (Giordan 2016). When the goal of prayer is for God to respond in direct and concrete ways to our needs, the practitioner is focusing on prayer's "outer effects." Ladd and Spilka note that this dimension is engaged with the physical world and its inhabitants. Prayers which intend to help the practitioner develop a relationship with and understanding of God are more "inner" focused; the attempt to shift one's perspective and emotion rather than alter the external world. Though Ladd and Spilka (2006) measure prayer along three dimensions (inward, outward, and upward), both inward and upward prayers refer to an "inner" focus of a perspective shift, adoration of the Divine, or an emotional release. While more nuanced categories of prayer purposes are of definite use, a basic division between inner and outer prayers still provides much to explore.

For instance, Bade and Cook (2008) found that half of the participants in their prayer study indicated that asking God for "quick fixes" to their problems was largely ineffective. Cornelio (2016) also found that teens he interviewed tended to "hear God" in decidedly non-miraculous ways, such as through friends texting encouraging chain messages or listening to uplifting music on their devices. In this way, God's answers to one's prayers are often seen not as miraculous occurrences but rather shifts in one's thinking which require training in when those new feelings, thoughts, sensations, and images are your own or if they are from God (Luhrmann 2013). Whether a practitioner expects "outer effects" such as miracles to occur versus whether she sees the results of prayer as mainly "inner effects" goes a long way to understanding the "success" of prayer. We predict that empirically deniable prayer purposes will prove to be more fragile and subject to disappointment. Overall, most practitioners focus on the inner effects of prayer, i.e., change in mood and perspective, and find the experience more rewarding.

The purpose of prayer is ultimately about what one expects from the prayer experience. Expectations define when a prayer fails and when it succeeds. Subsequently, the purpose of prayer should be central to understanding how prayer relates to individual beliefs about social and scientific causation. For instance, when Republicans were criticized for offering nothing more than "prayers" in response to continued gun violence, Paul Ryan, Speaker of the House, explained that "It's sad, and this is what you'll get from the far secular left. People who do not have faith, don't understand faith ... And it is the right thing to do, is to pray in moments like this [after a mass shooting] because you know what? Prayer works!" (Ryan 2017). This suggests that individuals who believe in the "outer effects" of prayer will accept prayer as a political and social solution to societal ills. Similarly, faith in the effectiveness of divine intervention explains why certain believers remain skeptical of the science of global warming, the usefulness of social welfare programs, and strict separation of church and state (Froese and Bader 2010). They believe that praying to God can change society and the environment and, therefore, political and scientific authorities must recognize God's omnipotence in order to be productive and accurate. For these believers, scientific explanations and popular public policies are doubted when they are not tied to purposive prayer.

Interestingly, belief that prayer will have outer effects sometimes enhances that eventuality. For instance, praying for the health and well-being of others has been found to function in the same way as receiving aid from or sharing your concerns with another (Krause and Chatters 2005; Schafer 2013). Prayers of petition can project social support, which has been documented to be protective factor against illness (Dossey 1993). Luhrmann (2013) further notes that prayer for others often has a physical aspect of touch. In this way, prayers for well-being function as a type of social support by communicating concern and care to individuals in need. Still, the relationship between prayer and well-being can be confounded by the fact that most individuals who pray for the well-being of themselves and others also utilized medical health resources (Brown 2012). Brown (2012) even found that well over three-quarters of American Pentecostals visited a doctor for a health problem for which they prayed for healing. Large-scale data analyses can perhaps better pinpoint the effects of prayer by being able to control for a vast number of variables research has shown to affect health.

The purpose of prayer provides us with a sense of what the individual practitioner hopes to gain from prayer, regardless of prayer style or quantity. This purpose will be central in understanding what believers think about prayer and when they believe that prayer is working.

2.4. Prayer Target

In thinking about the impact of prayer, we should not lose sight that individuals in prayer believe they are in communication with something supernatural, in most cases, a being who also feels and expresses emotion. In studying how individuals think about prayer, Sharp (2012a) concludes that prayer is always interactional, and rarely if ever

perceived as a solely internal activity. Therefore, in order to understand the effects of prayer, we need to consider the personality and disposition of the supernatural conversational partner in prayer.

Sharp (2010) distinguishes between "concrete social interactions," which are observable by a third party and "imaginary social interactions." The imagined other in prayer is often an anthropomorphized concept of the divine (Barrett 1998, 2001; Barrett and Keil 1996). Cerulo and Barra (2008) add that individuals are most likely to pray to a "supreme" entity (God) when praying to solve general global problems but turn to more "anthropomorphic" targets (Jesus, Mary) when praying about personal issues. For Cerulo and Barra, the purpose of prayer corresponds to the imagined personality of the target.

Andrew Greeley (1989) was one of the first sociologists to systematically ask about the personality of God. He found big differences in how believers understood religion based on who they felt God was. Froese and Bader (2010) built on Greeley's insight and showed that Americans differ in how they imagine God in terms of two general dimensions—(a) the extent to which God is available and engaged, and (b) the extent to which God judges you. Measures of attachment to God (Bradshaw and Kent 2018; Ellison et al. 2014) and Divine Control (Schieman 2008) further indicate how people feel about God.

Luhrmann et al. (2010) maintain that one's perception of God's character is cultivated over time through prayer. The experience of prayer, consequently, determines how God is perceived, which, in turn, affects the feelings during prayer. For instance, "The positive link between frequency of prayer and psychopathology exists primarily among those persons who do not view God as loving, and among those persons who perceive God as remote." (Bradshaw et al. 2008, p. 654). Specifically, a remote and distant God will invoke negative emotionality while a warm and loving God provides positive energy during prayer. This observed pattern has been replicated in numerous studies (Krause et al. 2015; Schieman et al. 2017; Stroope et al. 2013) and suggests that God's demeanor and attitude corresponds directly to that of the person in prayer (Luhrmann 2013). An angry God inspires feelings of anxiety, while a caring God enhances one's sense of optimism and agency (Liu and Froese 2020).

Overall, people tend to feel protected by God in prayer (Sim and Loh 2003), and one thing that unites believers is the assertion that God is loving (Froese and Bader 2010). While in some cases this can take the form of tough love, the shared belief that God is love continues to make prayer a wonderful opportunity to interact with an "other" who deeply cares for you (Mason 2016, p. 34). Ainsworth (1985) finds that believers who are strongly attached to God indicate that interactions with God provide a secure moment from which they may explore troubling issues. In turn, believers can experience separation anxiety when not in contact with God (Ainsworth 1985). Similarly, Granqvist and Kirkpatrick (2016) theorize that prayer, specifically meditative and contemplative prayer, is a proximity-maintaining behavior directed toward God. As such, individuals experiencing loss or separation often turn to prayer for emotional attachment and security (Granqvist and Kirkpatrick 2016). Beck and McDonald (2004) work demonstrates that prayer helps to ease fear of intimacy and abandonment. And prayer has been shown to temporarily mitigate feelings of loss of control (Friese and Wänke 2014). Friese and Wänke (2014) propose prayer as a type of "resource priming" that activates cognitive resources in participants, in which prayer resembles and acts like an empowering therapy session. Sharp (2012b, p. 257) found that having "prayed over" a decision helps to "prevent possible negative characterization." This is because the act of prayer gives a symbolic moral legitimacy to the practitioner. In sum, the attachment to God literature suggests that individuals with high levels of attachment to God will feel a great deal of emotional safety and assurance during prayer when God is their prayer target.

Newberg and Waldman (2009) suggest that this relationship may be even more direct. They criticize past work for anthropomorphizing the idea of God in survey and interview questions and find that in open-ended questions believers describe the feeling of God using such words as peace, energy, tranquility, and bliss (Newberg and Waldman 2009). This implies that individuals in prayer may be experiencing the divine as an emotional

or physiological state rather than a human-like conversation partner. And they find that approximately one-quarter of Americans report a vague and ephemeral image of God (Newberg and Waldman 2009).

While the theoretical sources vary, there is a consensus that prayer evokes powerful emotions in practitioners. For the most part, these emotions are positive and uplifting but, in certain cases, prayer can produce anxiety and fear depending on the kind of God imagined. In prayer, people often experience a direct interaction with God. In fact, the emotional need to interact with God, or some other, appears to be a major reason why people pray in the first place. And if this relationship proves positive, it can establish a deep sense of individual security and significance in the world.

3. Prayer Mechanisms

Weber (Weber 1978) categorization of four orientations toward social action—instrumental rational, value rational, affective, and traditional—speak to the mechanisms of prayer. Our proposed dimensions of prayer fall mainly in the categories of rational (both instrumental and value) and traditional behavior. The *quantity* and *style* of prayer, if routinized, are traditional behaviors, established by cultural norms and adhered to in order to avoid social stigma. The *purpose* and *targets* of prayer are mainly rational. They require conscious acceptance and adherence to stated concepts and, in the case of the prayer target, purposive interaction with a supernatural other. That said, we propose that all of these four dimensions are also affective behaviors or, in other words, are driven by emotional responses. In fact, the emotional or affective element in these dimensions is what may determine their routinization and outcomes.

3.1. Emotional Mechanisms

The act of prayer can lead directly to a decreased heart rate, a reduction in muscle tension, and slower breath (McCullough 1995). Levin (2020, p. 105) summarizes research which finds a host of other physiological and neurological outcomes of prayer and meditation which include changes in "electrophalogram rhythms," decreased "sympathetic nervous system activity," and increased "parasympathetic activity" which "is the opposite of the famous fight-or-flight response." These clinical studies suggest that prayer can consistently make us feel calm and relaxed by changing our brain chemistry and structure (Levin 2020; Newberg and Waldman 2009). The possibility that the prayer experience can deeply affect our physiology and emotionality explains how prayer is related to other outcomes.

Woodhead (2016, p. 226) notes that during prayer, "there is likely to be an associated emotional disruption in which one emotional state gives way or is supplemented, however briefly, to another." In fact, this may be the central reason that people return to prayer—to willfully shift their perspectives and emotional states. Often people are looking for immediate experiences of warmth or peace, and these sensations, along with the physical actions of crying or trembling, are widely understood as indications of the presence of the Holy Spirit (Luhrmann 2013). These physiological and emotional changes then lead people to seek out the experience of prayer over and over again, and Bradshaw et al. (2008, p. 654) note how "individuals who are confronting high levels of stress and distress pray more often." While religious coping can help reduce stress, there exists the possibility that religious devotion and activity can actually exacerbate stress by fomenting "blame" of the individual (DeAngelis et al. 2018, p. 186).

Therefore, we propose that researchers should attempt to measure the emotional content of prayer independently of its quantity, style, purpose, and prayer target. The emotion of prayer could be measured in terms of the "positive" or "negative" emotions that the prayer experience elicits. In turn, we can record the extent to which the emotions elicited by prayer (whether positive or negative) are "strongly" altered or "weakly" affected. In fact, emotion could form (a) the connection between the prayer experience and prayer outcomes, and (b) explain why individuals return to the prayer experience on a regular basis.

For instance, the health effects of a high volume of prayer may be mitigated by the emotional experience of the prayer act; lots of prayers which are emotionally vacuous may have no effect on the individual. Similarly, communing with a God who feels cold and distant can undermine one's sense of security and significance. In these ways, the emotional content of the prayer experience gives meaning to the experience of prayer over and above its variation in volume, style, purpose, and prayer target. These emotions may also explain why some individuals pray more often, adhere to strict prayer styles, believe a prayer is successful, and think God is loving. While these variations in the prayer experience should influence the emotional side of prayer, they are also dependent on the practitioner experiencing positive emotionality. A feedback loop between the emotion of prayer and the other aspects of the prayer experience may explain why some individuals lead an increasingly prayerful life and others avoid the practice altogether (see Figure 1).

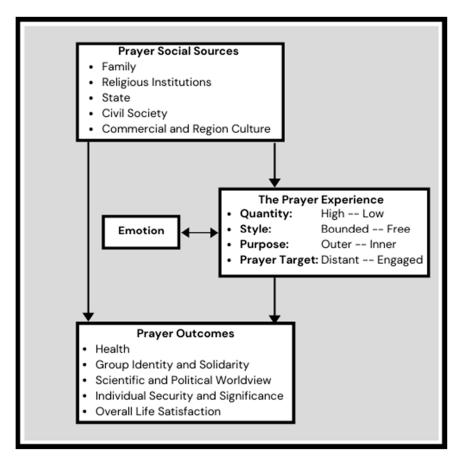


Figure 1. Sociology of Prayer: The Prayer Experience.

With his theory of Interaction Rituals (IR), Collins (2004) provides a framework for predicting when rituals will be "successful" and generate high levels of emotional energy. Collins (2004, p. 109) explains that "emotional energy is also what Durkheim called 'moral sentiment': it includes feelings of what is right and wrong, moral and immoral. Persons who are full of emotional energy feel like good persons; they feel righteous about what they are doing." Similarly, Moral Foundations Theory posits the existence of moral emotions, or instinctual feelings of good and bad that become connected to culturally specific symbols, identities, and narratives (Graham et al. 2013; Haidt 2013; Hitlin and Vaisey 2013). The socialization process that leads to differences in when moral emotions are triggered is not specified with Moral Foundations Theory but is in Collins' IR theory.

Specifically, IR theory identifies four components of ritual interaction which lead to either heightened or decreased emotional energy; they are: (1) bodily co-presence, (2) barriers to outsiders, (3) mutual focus of attention, and (4) shared mood. An interaction

which is intimate, exclusive, focused, and emotionally charged should establish a group solidarity, emotional energy, shared symbols, and shared morals (Collins 2004). The dynamics of the process were tested by Draper (2019) in a diverse range of religious ceremonies to find that emotional energy did increase based on IR theory's predictions.

Our proposed dimensions of prayer map onto IR theory well. First, prayer targets can indicate the extent to which believers feel attached and engaged by the target; this resembles IR theory's prediction that bodily co-presence will product feelings of intimacy and solidarity. In other words, close attachment to a prayer target in prayer might produce similar outcomes to being close to others in ritual solidarity. Second, styles of prayer match IR theory's discussion of the importance of barriers to outsiders by prescribing exclusive practices that are not shared by others. Third, the purpose of prayer defines the focus of the ritual, what is expected and what is sought. Finally, the *quantity* of prayer provides an overarching sense of the ubiquity and intensity of the prayer experience. As such, measures of prayer frequency and duration parallel indicators of collective ritual frequency and duration in IR theory. To this, we now add the emotional content of the prayer experience. Measuring the emotions evoked by various dimensions of prayer brings their meaning to the forefront. For instance, does praying daily for long periods of time feel oppressive or liberating? Does always asking God for favors feel good? Do strict prayer guidelines begin to feel boring or comforting? These emotional connections to the practice and meaning of prayer should play a central role in how the prayer experience is interpreted by the individual.

Based in IR theory we would expect that quantity, styles, purposes, and prayer targets all loosely range from being of "lower intensity" or emotionally weak to being of "higher intensity" or emotionally powerful (see Table 1). This suggests that these distinct measures are expected to be correlated or bundled together in their intensity. The overall prayer experience, then, is expected to be a composite of these prayer dimensions, which work in tandem and recursively to either increase or decrease the emotional strength and meaning of the experience.

3.2. Social Mechanisms

Religious commitment and membership have been shown to produce pro-social attitudes and behaviors (Becker and Dhingra 2001; Brooks 2007; Einolf 2013) as well as healthy behavior and beliefs (Levin 2020). Religiosity can also predict social intolerance (Doebler 2014), moral righteousness (Haidt 2013), and the denial of science (Ecklund and Scheitle 2017). And the mechanisms which explain these relationships can be purely social. Social integration within religious groups and the moral regulation of theologies explain why religion can increase the well-being and/or intolerance of the individual through secular means. Similarly, the prayer experience is tied to social sources and interactions which provide insights into why variation in the experience lead to different outcomes.

First, while we expect that our four proposed dimensions of the prayer experience will be correlated, we also propose that they should be held distinct for measurement and theoretical purposes. The *quantity* of prayer lends itself nicely to life course research which studies the accumulative effects of lifestyles and daily routines. We expect that *quantity* of prayer will correspond to long-term attachments to religious communities and therefore become an indicator of life course stability and social embeddedness. In this way, the *quantity* of prayer can be beneficial to individual or group well-being because it represents and perpetuates an overall level of social stability.

Because certain *styles* of prayer can indicate religious tension within a larger culture, they may also relate to the social position of an individual. As such, we expect that stricter prayer *styles* will be correlated with commitment to more insular and isolated religious groups. In turn, stricter prayer *styles* should predict religious and ideological exclusivity, as well as, increased intolerance of diversity. Consequently, social bridging across diverse groups could be diminished when groups adhere to differentiated prayer *styles*. Prayer *styles* then become a symbol of group membership more than simply a

reflection of individual religious preference. As a marker of group difference, prayer *styles* enhance individual belief and group solidarity through social exclusivity and a lack of bridging ties across groups.

While we expect prayer *quantity* and prayer strictness to be correlated (i.e., people who pray more often will most likely have cultivated prayer *styles*), they may predict very different effects. Higher prayer *quantity* might enhance social stability when stricter prayer *styles* might inspire social conflict. For this and other reasons, we advocate for keeping our four dimensions of prayer conceptually separate even when they work in tandem.

While the importance of prayer *quantity* might be explained by its relation to social stability and the importance of prayer *styles* might be explained by their relation to social network structures, both the *purpose* of prayer and *prayer targets* are reflections of individual perspectives with no obvious social structural correlates. Therefore, these dimensions of prayer function in ways similar to belief, in that they provide insights into the rationale and motivations of individual behaviors. Still, both the *purpose* of prayer and *prayer targets* have social sources because they emerge from pre-established social norms and narratives. Socialization into distinct beliefs and worldviews explain why particular prayer *purposes* and *prayer targets* are embraced by individuals. But once embraced, these prayer dimensions can take on a life of their own as individuals routinely negotiate and refine who God is and what prayer does for you.

Still, we would expect that *prayer targets* along with *purposes* of prayer will be bundled with other social, moral, and political beliefs for social and not necessarily logical reasons. For instance, politicians who speak of a wrathful God or the power of prayer signal to believers that their policy proposals and social visions are logical extensions of these beliefs. The connection between a God image and a policy preference, for instance, might never be explicitly explained because the symbolic and rhetorical connections are sufficient. Beliefs about prayer's *purpose* and *prayer targets* act as social symbols of shared morality without needing to delve into their deeper meanings or ramifications.

In sum, we expect that relationships between our various dimensions of the prayer experience and various social outcomes will be premised on underlying social mechanisms. But these mechanisms will be different for different dimensions of prayer.

4. Conclusions

The forms and purposes of prayer are socially established and legitimated. This is an initial premise of the sociology of prayer. The social sources of prayer are multifaceted but, within distinct religious cultures and communities, the act of prayer becomes a social *habitus*, which, in the words of Bourdieu (1998, p. 8), "constitutes a veritable *language*" that resonates emotionally and symbolically without need of conceptual explication. In this way, the individual sees the practice of prayer as both natural (almost instinctual) and sacred. But variation in the practice of prayer is evidence of its deep social and cultural roots. To better establish the mechanisms by which prayer is socially constructed, we need to concisely conceptualize and measure variation in prayer. We propose four dimensions of prayer which vary with cultural differences and produce varied outcomes; they are the *quantity*, the *style*, and the *purpose* of prayer, along with *prayer targets*.

While these four dimensions of the prayer experience are distinct, they combine to produce the overall intensity and outcomes of prayer. In particular, we note that these dimensions will interact with the emotions they evoke. The emotional content of the prayer experience should be related to (a) when individuals increase or decrease their prayer *quantity*, (b) when prayer *styles* establish group boundaries or religious tolerance, (c) whether prayer *purposes* are successful or not, and (d) the personalities attached to *prayer targets*. Overall, we expect that positive prayer emotions will enhance a practitioner's confidence in the supernatural, adherence to established prayer routines and styles, belief in the effectiveness of prayer, and attachment to God. Negative prayer emotions should produce the opposite.

Once the experience of prayer becomes a recurring source of meaning, direction, and solace for practitioners, it will affect their behaviors, lifestyles, and worldviews in dramatic ways. This explains the power of prayer for individual and social outcomes. Again, we hypothesize that the power of prayer will vary depending on variation in the dimensions of the prayer experience. And different dimensions of the prayer experience affect different social outcomes depending on their meaning and context. For instance, stricter prayer *styles* can lead to both social isolation and social solidarity depending on the cultural environment. Similarly, prayers which evoke the voice of God can subsequently evoke great fear or intense adoration. And prayer *purposes* which seek to change the world could lead to feelings of blind optimism or bitter disillusionment. These numerous hypotheses can better be tested with consistent and widely applicable measures of the prayer experience. This paper proposes that prayer is comprised of four main aspects, all of which vary in intensity and across cultures. These dimensions should form the foundation of our ongoing sociological investigation of prayer.

Author Contributions: Conceptualization, P.F.; writing—original draft preparation, P.F. and R.J.; writing—review and editing, P.F. and R.J.; visualization, P.F. and R.J.; supervision, P.F.; project administration, P.F. All authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Conflicts of Interest: The authors declare no conflict of interest.

References

Ainsworth, Mary D. 1985. Attachments across the Life Span. *Bulletin of the New York Academy of Medicine* 61: 792–812. [PubMed] ap Siôn, Tania. 2016. Prayer Requests in an English Cathedral, and a New Analytic Framework for Intercessory Prayer. In *A Sociology of Prayer*. Edited by Giuseppe Giordan and Linda Woodhead. London: Routledge, pp. 169–90.

Asad, Talal. 1993. Genealogies of Religion: Discipline and Reasons of Power in Christianity and Islam. Baltimore: Johns Hopkins University

Asad, Talal. 2003. Formations of the Secular: Christianity, Islam, Modernity. Stanford: Stanford University Press.

Bade, Mary K., and Stephen W. Cook. 2008. Functions of Christian Prayer in the Coping Process. *Journal for the Scientific Study of Religion* 47: 123–33. [CrossRef]

Baesler, E. James. 2001. The Prayer of the Holy Name in Eastern and Western Spiritual Traditions: A Theoretical, Cross-Cultural, and Intercultural Prayer Dialogue. *Journal of Ecumenical Studies* 38: 196.

Baker, Joseph O. 2008. An Investigation of the Sociological Patterns of Prayer Frequency and Content. *Sociology of Religion* 69: 169–85. [CrossRef]

Barnes, Patricia M., Eve Powell-Griner, Kim McFann, and Richard L. Nahin. 2004. Complementary and Alternative Medicine Use among Adults: United States, 2002. Seminars in Integrative Medicine 2: 54–71. [CrossRef]

Barrett, Justin L. 1998. Cognitive Constraints on Hindu Concepts of the Divine. *Journal for the Scientific Study of Religion* 37: 608–19. [CrossRef]

Barrett, Justin L. 2001. Do Children Experience God as Adults Do. In *Religion in Mind: Cognitive Perspectives on Religious Belief, Ritual, and Experience*. Edited by John Andresen. Cambridge: Cambridge University Press, pp. 173–90.

Barrett, Justin L., and Frank C. Keil. 1996. Conceptualizing a Nonnatural Entity: Anthropomorphism in God Concepts. *Cognitive Psychology* 31: 219–47. [CrossRef]

Bartkowski, John P., Gabriel A. Acevedo, and Harriet Van Loggerenberg. 2017. Prayer, Meditation, and Anxiety: Durkheim Revisited. *Religions* 8: 191. [CrossRef]

Beck, Richard, and Angie McDonald. 2004. Attachment to God: The Attachment to God Inventory, Tests of Working Model Correspondence, and an Exploration of Faith Group Differences. *Journal of Psychology and Theology* 32: 92–103. [CrossRef]

Becker, Penny Edgell, and Pawan H. Dhingra. 2001. Religious Involvement and Volunteering: Implications for Civil Society. *Sociology of Religion* 62: 315. [CrossRef]

Bellah, Robert N. 2011. Religion and Human Evolution: From the Paleolithic to the Axial Age. Cambridge: Harvard University Press.

Berger, Peter L., and Thomas Luckmann. 1966. *The Social Construction of Reality: A Treatise in the Sociology of Knowledge*. New York: Doubleday.

Black, Stephanie Winkeljohn, Patrick Pössel, Benjamin D. Jeppsen, Afia Tariq, and David H. Rosmarin. 2015. Poloma and Pendleton's (1989) Prayer Types Scale in Christian, Jewish, and Muslim Praying Adults: One Scale or a Family of Scales? *Psychology of Religion and Spirituality* 7: 205–16. [CrossRef]

Black, Stephanie Winkeljohn, Patrick Pössel, David H. Rosmarin, Afia Tariq, and Benjamin D. Jeppsen. 2017. Prayer Type, Disclosure, and Mental Health Across Religious Groups. *Counseling and Values* 62: 216–34. [CrossRef]

Bourdieu, Pierre. 1998. Practical Reason: On the Theory of Action. Stanford: Stanford University Press.

Boyatzis, Chris J., David C. Dollahite, and Loren D. Marks. 2005. The Family as a Context for Religious and Spiritual Development in Children and Youth. In *The Handbook of Spiritual Development in Childhood and Adolescence*. Edited by Eugene C. Roehlkepartain, Pamela Ebstyne King, Linda Wagener and Peter L. Benson. New York: SAGE Publications, pp. 297–309.

Bradshaw, Matt, and Blake Victor Kent. 2018. Prayer, Attachment to God, and Changes in Psychological Well-Being in Later Life. *Journal of Aging and Health* 30: 667–91. [CrossRef] [PubMed]

Bradshaw, Matt, Christopher G. Ellison, and Kevin J. Flannelly. 2008. Prayer, God Imagery, and Symptoms of Psychopathology. *Journal for the Scientific Study of Religion* 47: 644–59. [CrossRef]

Braunstein, Ruth, Brad R. Fulton, and Richard L. Wood. 2014. The Role of Bridging Cultural Practices in Racially and Socioeconomically Diverse Civic Organizations. *American Sociological Review* 79: 705–25. [CrossRef]

Brooks, Arthur C. 2007. Who Really Cares: The Surprising Truth about Compassionate Conservatism—America's Charity Divide—Who Gives, Who Doesn't, and Why It Matters. New York: Basic Books.

Brown, Laurence Binet. 1994. The Human Side of Prayer: The Psychology of Praying. Birmingham: Religious Education Press.

Brown, Candy Gunther. 2012. Testing Prayer. Cambridge: Harvard University Press.

Brown, Candy Gunther. 2013. The Healing Gods: Complementary and Alternative Medicine in Christian America. New York: Oxford University Press.

Cerulo, Karen A., and Andrea Barra. 2008. In the Name Of . . . : Legitimate Interactants in the Dialogue of Prayer. *Poetics* 36: 374–88. [CrossRef]

Chakraborty, Smita. 2015. Prayer and Mantra as a Provenance of Healing: A Sociological Analysis. Scholarly Research Journal for Interdisciplinary Studies 3: 8.

Collins, Randall. 2004. Interaction Ritual Chains. Princeton: Princeton University Press.

Cornelio, Jayeel Serrano. 2016. Filipino Catholic Students and Prayer as Conversation with God. In *A Sociology of Prayer*. Edited by Giuseppe Giordan and Linda Woodhead. London: Routledge, pp. 133–52.

DeAngelis, Reed, John Bartkowski, and Xiaole Xu. 2018. Scriptural Coping: An Empirical Test of Hermeneutic Theory. *Journal for the Scientific Study of Religion*. 58: 174–91. [CrossRef]

Doebler, Stefanie. 2014. Relationships Between Religion and Intolerance towards Muslims and Immigrants in Europe: A Multilevel Analysis. *Review of Religious Research* 56: 61–86. [CrossRef]

Domke, David, and Kevin Coe. 2008. The God Strategy: How Religion Became a Political Weapon in America. Oxford: Oxford University Press.

Dossey, Larry. 1993. Healing Words. Psychological Perspectives 28: 20–31. [CrossRef]

Draper, Scott. 2014. Effervescence and Solidarity in Religious Organizations. *Journal for the Scientific Study of Religion* 53: 229–48. [CrossRef]

Draper, Scott. 2019. Religious Interaction Ritual: The Microsociology of the Spirit. Lanham: Rowman & Littlefield.

Durkheim, Emile. 1995. The Elementary Forms of Religious Life. Translated by Karen Fields. New York: Free Press.

Ecklund, Elaine Howard, and Christopher P. Scheitle. 2017. *Religion vs. Science: What Religious People Really Think*. Oxford: Oxford University Press.

Einolf, Christopher J. 2013. Daily Spiritual Experiences and Prosocial Behavior. Social Indicators Research 110: 71-87. [CrossRef]

Ellison, Christopher G., and Amy M. Burdette. 2012. Religion and the Sense of Control among U.S. Adults. *Sociology of Religion* 73: 1–22. [CrossRef]

Ellison, Christopher G., Amy M. Burdette, and Terrence D. Hill. 2009. Blessed Assurance: Religion, Anxiety, and Tranquility among US Adults. *Social Science Research* 38: 656–67. [CrossRef] [PubMed]

Ellison, Christopher G., Matt Bradshaw, Kevin J. Flannelly, and Kathleen C. Galek. 2014. Prayer, Attachment to God, and Symptoms of Anxiety-Related Disorders among U.S. Adults. *Sociology of Religion* 75: 208–33. [CrossRef]

Friese, Malte, and Michaela Wänke. 2014. Personal Prayer Buffers Self-Control Depletion. *Journal of Experimental Social Psychology* 51: 56–59. [CrossRef]

Froese, Paul, and Christopher Bader. 2010. *America's Four Gods: What We Say about God—and What That Says about Us*. Oxford: Oxford University Press.

Gallup, George. 1985. Religion in America. *The Annals of the American Academy of Political and Social Science* 480: 167–74. [CrossRef] Galonnier, Juliette, and Diego de los Rios. 2016. Teaching and Learning to Be Religious: Pedagogies of Conversion to Islam and Christianity. *Sociology of Religion* 77: 59–81. [CrossRef]

Giordan, Giuseppe. 2016. You Never Know. Prayer as Enchantment. In *A Sociology of Prayer*. Edited by Giuseppe Giordan and Linda Woodhead. London: Routledge, pp. 1–8.

Graham, Jesse, Jonathan Haidt, Sena Koleva, Matt Motyl, Ravi Iyer, Sean P. Wojcik, and Peter H. Ditto. 2013. Moral Foundations Theory: The Pragmatic Validity of Moral Pluralism. In *Advances in Experimental Social Psychology*. Edited by Patricia Devine and Ashby Plant. Cambridge: Academic Press, vol. 47, pp. 55–130.

Granqvist, Pehr, and Lee A. Kirkpatrick. 2016. Attachment and Religious Representations and Behavior. In *Handbook of Attachment, Third Edition: Theory, Research, and Clinical Applications*. Edited by Jude Cassidy and Phillip R. Shaver. New York: Guilford Publications.

Greeley, Andrew M. 1989. Religious Change in America. Cambridge: Harvard University Press.

Haidt, Jonathan. 2013. The Righteous Mind: Why Good People Are Divided by Politics and Religion. New York: Vintage Books.

Hammerling, Roy. 2008. A History of Prayer: The First to the Fifteenth Century. New York: BRILL.

Hitlin, Steven, and Stephen Vaisey. 2013. The New Sociology of Morality. Annual Review of Sociology 39: 51–68. [CrossRef]

Hunter, James Davison. 1990. Modern Pluralism and the First Amendment: The Challenge of Secular Humanism. *The Brookings Review* 8: 20–27. [CrossRef]

Iannaccone, Laurence R. 1994. Why Strict Churches Are Strong. American Journal of Sociology 99: 1180-211. [CrossRef]

Iannaccone, Laurence R., and William Sims Bainbridge. 2009. Economics of Religion. In *The Routledge Companion to the Study of Religion*. Edited by J. Hinnells. London: Routledge.

James, William. 1902. The Varieties of Religious Experience: A Study in Human Nature. London: Routledge.

Janssen, Jacques, Joep De Hart, and Christine Den Draak. 1990. A Content Analysis of the Praying Practices of Dutch Youth. *Journal for the Scientific Study of Religion* 29: 99–107. [CrossRef]

Kelley, Dean M. 1972. Why Conservative Churches Are Growing: A Study in Sociology of Religion with a New Preface for the Rose Edition. Macon: Mercer University Press.

Kersten, Lawrence K. 1970. The Lutheran Ethic: The Impact of Religion on Laymen and Clergy. Detroit: Wayne State University Press.

Krause, Neal, and Linda M. Chatters. 2005. Exploring Race Differences in a Multidimensional Battery of Prayer Measures among Older Adults. *Sociology of Religion* 66: 23. [CrossRef]

Krause, Neal, Robert A. Emmons, and Gail Ironson. 2015. Benevolent Images of God, Gratitude, and Physical Health Status. *Journal of Religion and Health* 54: 1503–19. [CrossRef] [PubMed]

Ladd, Kevin L., and Bernard Spilka. 2006. Inward, Outward, Upward Prayer: Scale Reliability and Validation. *Journal for the Scientific Study of Religion* 45: 233–51. [CrossRef]

Layman, Geoffrey. 2001. The Great Divide: Religious and Cultural Conflict in American Party Politics. New York: Columbia University Press.

Leege, David C., Kenneth D. Wald, and Lyman A. Kellstedt. 1993. The Public Dimension of Private Devotionalism. In *Rediscovering the Religious Factor in American Politics*. Edited by David Leege and Lyman Kellstedt. London: Routledge, pp. 139–56.

Lenski, Gerhard. 1963. The Religious Factor: A Sociological Study of Religion's Impact on Politics, Economics, and Family Life. New York: Anchor.

Levin, Jeffrey S. 2016. Prevalence and Religious Predictors of Healing Prayer Use in the USA: Findings from the Baylor Religion Survey. *Journal of Religion and Health* 55: 1136–58. [CrossRef]

Levin, Jeffrey S. 2020. Religion and Medicine. A History of the Encounter Between Humanity's Two Greatest Institutions. New York: Oxford University Press.

Levin, Jeffrey S., and Robert Joseph Taylor. 1997. Age Differences in Patterns and Correlates of the Frequency of Prayer. *The Gerontologist* 37: 75–88. [CrossRef]

Liu, Yingling, and Paul Froese. 2020. Faith and Agency: The Relationships Between Sense of Control, Socioeconomic Status, and Beliefs about God. *Journal for the Scientific Study of Religion* 59: 311–26. [CrossRef]

Loveland, Matthew T., David Sikkink, Daniel J. Myers, and Benjamin Radcliff. 2005. Private Prayer and Civic Involvement. *Journal for the Scientific Study of Religion* 44: 1–14. [CrossRef]

Luhrmann, Tanya M. 2013. When God Talks Back: Understanding the American Evangelical Relationship with God. New York: Vintage Books. Luhrmann, Tanya M., Howard Nusbaum, and Ronald Thisted. 2010. The Absorption Hypothesis: Learning to Hear God in Evangelical Christianity. American Anthropologist 112: 66–78. [CrossRef]

Mahmood, Saba. 2004. Politics of Piety: The Islamic Revival and the Feminist Subject. Princeton: Princeton University Press.

Mason, Michael C. 2016. For Youth, Prayer Is Relationship. In *A Sociology of Prayer*. Edited by Giuseppe Giordan and Linda Woodhead. London: Routledge, pp. 25–48.

Mauss, Marcel. 2003. On Prayer: Text and Commentary. New York: Berghahn Books.

McCaffrey, Anne M., David M. Eisenberg, Anna T. R. Legedza, Roger B. Davis, and Russell S. Phillips. 2004. Prayer for Health Concerns: Results of a National Survey on Prevalence and Patterns of Use. *Archives of Internal Medicine* 164: 858. [CrossRef] [PubMed]

McCullough, Michael E. 1995. Prayer and Health: Conceptual Issues, Research Review, and Research Agenda. *Journal of Psychology & Theology* 23: 15–29.

Newberg, Andrew, and Mark Robert Waldman. 2009. *How God Changes Your Brain: Breakthrough Findings from a Leading Neuroscientist*. New York: Random House Publishing Group.

Norris, Pippa, and Ronald Inglehart. 2004. Sacred and Secular: Religion and Politics Worldwide. Cambridge: Cambridge University Press. O'Connor, Patrick J., Nicolaas P. Pronk, Agnes Tan, and Robin R. Whitebird. 2005. Characteristics of Adults Who Use Prayer as an Alternative Therapy. American Journal of Health Promotion 19: 369–75. [CrossRef] [PubMed]

O'Reilly, JoAnn. 1995. A Community of Strangers: Finding Solidarity through Prayer Request Journals. *The Caregiver Journal* 11: 26–30. [CrossRef]

Pargament, Kenneth I., Harold G. Koenig, and Lisa M. Perez. 2000. The Many Methods of Religious Coping: Development and Initial Validation of the RCOPE. *Journal of Clinical Psychology* 56: 519–43. [CrossRef]

Pargament, Kenneth, Gene Ano, and Amy Wachholtz. 2005. The Religious Dimension of Coping. In *Handbook of the Psychology of Religion and Spirituality*. New York: Guilford Press, pp. 479–95.

Pattillo-McCoy, Mary. 1998. Church Culture as a Strategy of Action in the Black Community. *American Sociological Review* 63: 767–84. [CrossRef]

Poloma, Margaret M., and George Gallup. 1991. Varieties of Prayer: A Survey Report. Atlanta: Trinity Press International.

Poloma, Margaret M., and Brian F. Pendleton. 1989. Exploring Types of Prayer and Quality of Life: A Research Note. *Review of Religious Research* 31: 46. [CrossRef]

Pravdová, Hana, and Jana Radošinská. 2013. Media Culture in the Context of Transformation of Contemporary Spiritual Values and Spirituality. *European Journal of Science and Theology* 9: 169–78.

Richards, Douglas G. 1991. The Phenomenology and Psychological Correlates of Verbal Prayer. *Journal of Psychology & Theology* 19: 354–63.

Ryan, Paul. 2017. Ryan on Texas Shooting, Tax Plan, Relationship with Trump. Available online: https://video.foxnews.com/v/5637 636586001 (accessed on 7 November 2017).

Schafer, Markus H. 2013. Close Ties, Intercessory Prayer, and Optimism Among American Adults: Locating God in the Social Support Network. *Journal for the Scientific Study of Religion* 52: 35–56. [CrossRef]

Schieman, Scott. 2008. The Religious Role and the Sense of Personal Control. Sociology of Religion 69: 273-96. [CrossRef]

Schieman, Scott, Alex Bierman, Laura Upenieks, and Christopher G. Ellison. 2017. Love Thy Self? How Belief in a Supportive God Shapes Self-Esteem. *Review of Religious Research* 59: 293–318. [CrossRef]

Sharp, Shane. 2010. How Does Prayer Help Manage Emotions? Social Psychology Quarterly 73: 417–37. [CrossRef]

Sharp, Shane. 2012a. For a Social Psychology of Prayer. Sociology Compass 6: 570-80. [CrossRef]

Sharp, Shane. 2012b. Prayer Utterances as Aligning Actions. Journal for the Scientific Study of Religion 51: 257-65. [CrossRef]

Sherkat, Darren E., and Shannon A. Cunningham. 1998. Extending the Semi-Involuntary Institution: Regional Differences and Social Constraints on Private Religious Consumption among African Americans. *Journal for the Scientific Study of Religion* 37: 383–96. [CrossRef]

Sim, Tick N., and Bernice S. M. Loh. 2003. Attachment to God: Measurement and Dynamics. *Journal of Social and Personal Relationships* 20: 373–89. [CrossRef]

Simmel, Georg. 1997. Essays on Religion. New York: Yale University Press.

Spilka, Bernard, Ralph W. Hood Jr., Bruce Hunsberger, and Richard Gorsuch. 2003. *The Psychology of Religion, Third Edition: An Empirical Approach*. New York: Guilford Publications.

Stark, Rodney. 2017. Why God?: Explaining Religious Phenomena. Consshohoken: Templeton Foundation Press.

Stark, Rodney, and William Bainbridge. 1985. The Future of Religion: Secularization, Revival, and Cult Formation. Berkeley: University of California Press.

Stark, Rodney, and Roger Finke. 2000. Acts of Faith: Explaining the Human Side of Religion. Berkeley: University of California Press.

Stratton, Stephen P. 2015. Mindfulness and Contemplation: Secular and Religious Traditions in Western Context. *Counseling and Values* 60: 100–18. [CrossRef]

Stroope, Samuel, Scott Draper, and Andrew L. Whitehead. 2013. Images of a Loving God and Sense of Meaning in Life. *Social Indicators Research* 111: 25–44. [CrossRef]

Wachholtz, Amy, and Usha Sambamoorthi. 2011. National Trends in Prayer Use as a Coping Mechanism for Health Concerns: Changes from 2002 to 2007. *Psychology of Religion and Spirituality* 3: 67–77. [CrossRef]

Weber, Max. 1978. Economy and Society: An Outline of Interpretive Sociology. Berkeley: University of California Press.

West, Michael A., ed. 2016. The Psychology of Meditation: Research and Practice. Oxford: Oxford University Press.

Winchester, Daniel. 2008. Embodying the Faith: Religious Practice and the Making of a Muslim Moral Habitus. *Social Forces* 86: 1753–80. [CrossRef]

Winchester, Daniel, and Jeffrey Guhin. 2019. Praying 'Straight from the Heart': Evangelical Sincerity and the Normative Frames of Culture in Action. *Poetics* 72: 32–42. [CrossRef]

Woodhead, Linda. 2016. Prayer as Changing the Subject. In *A Sociology of Prayer*. Edited by Giuseppe Giordan and Linda Woodhead. London: Routledge, pp. 213–30.

Wuthnow, Robert. 2015. *Inventing American Religion: Polls, Surveys, and the Tenuous Quest for a Nation's Faith.* New York: Oxford University Press.