
CHAPTER 1

Introduction to the Scientific Study of Prayer

Prayer is the very soul of religion.
—AUGUSTE SABATIER (1897, p. 109)

A history and psychology of prayer would almost be equivalent
to a history and psychology of religion.
—GEORGE A. COE (1916, p. 302)

A history of prayer would be the best history of the religious
development of mankind.
—AUGUSTE SABATIER (1897, p. 28)

People interested in prayer have literally hundreds of books from which to choose. Some are “how-to” manuals, while others reflect the authors’ personal experiences. Even more tomes are dedicated to theological conceptions of prayer. In this book we take none of those approaches, though we do occasionally draw upon their insights. Rather, we undertake to explore what is known about prayer based on years of research applications of the scientific method to the subject.

Our approach is obviously just one closely circumscribed way of understanding prayer, that does not permit us to grapple with the central metaphysical assumptions underlying prayer (e.g., Does God hear and answer prayers?). Rather, in this slim volume we offer a review of scientific efforts and observations that should encourage thinking about how science and other disciplines interested in prayer

(e.g., religious studies, theology) can suggest and pose mutually respectful and informed questions. If, together, we are able to arrive at new answers and fresh outlooks, consider it a bonus!

Why study prayer? At first, the answer appears simple. People pray because it is appropriate in certain settings or is the only resource left for those in need. A scientific orientation, however, tells us that prayer is central to the psychology of religion and calls upon the essence of psychology itself. The scientific framework seeks to explain the issues of “appropriateness” and “need” by turning to our knowledge of cognition (how people think), motivation (what is wanted or needed), and emotion (feelings and desires). As succeeding chapters attest, scientific perspectives make us consider matters of individual development, coping, adjustment, well-being, social life, and health. Prayer is thus the psychology of religion in action and literally reflects virtually every facet of behavioral scientific psychology, from its neural roots to complex social responsibility. In this volume, we hope to demonstrate these ideas.

The quotations that open this chapter typify the views of early psychologists of religion on prayer. Many of the field’s earliest scholars combined their interest in psychology with deeply held religious convictions (Spilka & McIntosh, 1999). As psychology gradually became a science, it increasingly separated itself from traditional faith. Many psychologists simultaneously embraced the perspectives and methods of science to better understand religious belief, behavior, and experience in more quantifiable terms. This gradualistic approach resulted in the early acceptance of the psychology of religion in mainline journals of the American Psychological Association (APA).

As noted in the Preface, this is a book about the psychology of prayer, not the theology of prayer. We do not deal with the validity or consistency of theological statements but, rather, explore some of the psychological ramifications of such ideas and actions (Spilka, 1976). This attempt to understand prayer by using the tools of social science should not be misconstrued as deliberately downplaying its spiritual dimension. The scientific method does, however, restrict itself to a domain of theory that generates testable hypotheses, and we strive to remain securely within these boundaries.

On one level, prayer is commonly taken for granted. The popular belief is that “everyone knows what prayer is.” Closer scrutiny, however, reveals a complexity that demands further analysis. As of

December 2011, the Internet search engine Google listed some 226 million entries related to the search term “pray.” Even though some of these entries cited the same source, obviously the subject is a significant topic within the public discourse.

There are few matters of greater personal importance than the prayers people offer to their God. The individual prayer and its sought-for objectives, no matter how serious and intimate the prayer is, often appear modest in manner and aspiration. As the quintessential religious activity, prayer possesses a quality that circumscribes virtually all human enterprises and hopes. Comparable to the aural adorations in Beethoven’s *Missa Solemnis*, the visual message implicit in Dürer’s *Hands of an Apostle*, or the fervent appeals of those in pain to a Higher Power, prayer resonates with an impressive psychological punch.

The General Social Survey’s analysis of national data from 1972 to 2006 suggests that as many as 97% of Americans pray, and some 57% indicate that they pray one or more times each day (General Social Survey, 2008). Laird (1991) reported on a Princeton University survey that found “74% of men and 86% of women rely on prayer when faced with a problem” (p. 22). If we accept Clark’s (1958) positing of secret religion as one we keep to ourselves, numerous prayers probably go unreported. The central place of prayer in life, personally and socially, conveys clearly why there is a need to understand theory and research in this area. Wuthnow (2008a) further asserts that “far more Americans pray than engage in other religious activities” (p. 334), including any other private or public religious behavior.

A full treatment of prayer requires a wide-ranging perspective. We see it as primarily relevant to both personal and social psychology; it is complex behavior of fundamental importance to the lives of most people, encompassing a broad spectrum of attitudes, beliefs, experiences, and knowledge. Since we cannot cover fully all aspects of prayer in its myriad cultural contexts, our intention is to emphasize the American and European milieus, for these are where most of the quantitative research has been conducted. In a few instances studies are reported from the Jewish and Muslim traditions. It is our hope that others with experience in alternative settings will in time join the dialogue.

Prayer is only one aspect of the ways in which religion is understood and practiced. No one, however, would question its centrality

and its elaborate network of social-psychological and possibly even biological embodiments. Faith is expressed in many ways, and prayer is part of a larger framework of beliefs, experiences, and observances.

In the chapters to come we convey an appreciation of how complex prayer is. Simply put, prayer has many facets that can be measured. Most basically, it is embedded in the rich and involved structure of mainstream psychology. Second, praying begins early and in part reflects how one perceives the world throughout life. Its place in childhood, adolescence, adulthood, and old age is integral to coping with the problems of living. Third, prayer reflects the perceptions, cognitions, and motivations of those who pray. In recent years, these psychological realms have been supplemented by a neuropsychology that attempts to describe how the brain and nervous system operate during prayer. Fourth, if there is one major function of prayer, it is the key role it plays in helping people cope with the problems encountered in social living. For example, prayer is significant in marriage and family life, especially when confronting such personal issues as one's children, health, illness, or death. Virtually every aspect of clinical, social, and experimental psychology has a place in our efforts to comprehend this most basic of human activities. Prayer is truly critical to the way most people conduct their lives. It is an important feature not simply of the psychology of religion but of psychology in toto. A full treatment of prayer requires a wide-ranging perspective (Zaleski & Zaleski, 2005). We hope our handling of this domain will stimulate new ideas and research that will enhance both scientific and personal dealings with the world.

Finally, prayer does not exist in a psychological or religious vacuum. We should not lose sight of its place within the broad framework of religious and spiritual actions that include those not only of psychological interest but also of sociological and anthropological concern.

SOME BASICS

An understanding of prayer offers the potential to achieve insight into a variety of fundamental psychological processes (cognition, motivation, etc.). These processes are inseparable from the broader historical, cultural, and social settings in which people congregate. Here one must keep in mind the religious practices and their meanings

that are taught by religious bodies, parents, and peers. For instance, what is the appropriate physical posture to adopt while praying, and should one face the East or another direction? What happens psychologically if I am physically unable to follow these guidelines? Finally, as recent work implies, prayer as a core religious element might even have biological links (Gazzaniga, 1985; Hardy, 1976; Waller, Kojetin, Bouchard, Lykken, & Tellegen, 1990).

Even passing familiarity with the history of the psychology of religion tells us that, after an initially strong reception, religion and prayer were largely ignored or rejected by mainstream psychologists. Some have viewed the relationship as a war on religion (Cummings, O'Donohue, & Cummings, 2009), but slowly over the past half-century interest in the psychology of religion has grown to the extent that research and discussion of psychoreligious issues may be found in first-line journals of the APA (Wade, 2010). In addition, Division 36 of the APA deals exclusively with the psychology of religion and publishes its own journal, *Psychology of Religion and Spirituality*. Other noteworthy publications are the *International Journal for the Psychology of Religion*, the *Journal for the Scientific Study of Religion*, and the *Review of Religious Research*. One can easily cite other journals that tie the psychology of religion to various religious bodies, all of which have included research on the theory and practice of prayer.

Unfortunately, the position enunciated by Pratt (1910) a century ago remains valid. He declared: "It is not a little surprising that in an age when so much emphasis is laid upon empiricism and the value of "facts" so little attempt should have been made to study empirically what is perhaps the most important and vital fact of religion . . . prayer" (p. 48). We may not fully remedy this shortcoming, but we hope to contribute meaningfully toward its resolution. In 1985 Finney and Malony (1985b) offered a review of the empirical work undertaken on prayer, noting a paucity of solid research in the area. We are pleased to have witnessed during the past 25 years a remarkable turnaround in that regard, with literally hundreds of studies undertaken on the subject. And yet, as we will see, too many of these studies fall short on both their design and analysis.

Finally, the scientific study of prayer invariably involves measurement. Many means are employed to assess religiousness, including the subjectively judged importance of religion, scales that deal with the structure of belief systems, and such behavioral indices as

the frequency of attendance at services, among other possibilities. Sometimes questionnaire items inquire how often one prays. These indicators invariably correlate substantially with one another, and references to research that treats attendance rates are worth citing whenever appropriate. Prayer has long been considered an element of religiosity that correlates strongly with collective worship and institutional rituals and protocols.

Public and Private Prayer: The Issue of Worship

Sharply distinguishing between “worship” and “prayer” has some legitimate appeal. The term “worship” has been applied to virtually all religious activities. Most authors, however, reserve the concept of worship for collective religious activity in which large numbers of people participate in orderly structured public services, usually within an institutional (i.e., church) setting (Clark, 1958). Some authors also apply it to rites that involve relatively few individuals, such as reciting grace at a home meal or observances by small groups at funerals or memorial services. The hallmark of worship appears to be public formal ceremony and ritual. In a sense, “worship” refers to the sanctioned actions of people as prescribed by institutional doctrine and practice.

Prayer, as a personal–private devotional activity, may or may not be viewed as a form of worship, though varying degrees of overlap have been suggested (see, e.g., Smart, 1972). No criteria have been established to distinguish sharply between prayer and worship. Despite the formal use of the *Te Deum* or a well-established hymn, people always bring their own unique meanings to their church, mosque, synagogue, or temple services. These interpretations and practices may include many things, from simple habits to personally intense and complex religious mystical experiences. There is always room for personally prayerful expression within a structured service, even during those portions that specify the engagement of all participants in a single corporate prayer. Being in the “House of God” may stimulate a great deal of individual expressive variation. The conventional public worship setting may also introduce important social-psychological factors into the process of prayer. One has to consider the influence of others who are engaged in similar activities as well as the meaning of particular social settings, the role of ritualized ceremony, the degree of one’s personal involvement, and other factors.

In sum, prayer is commonly submerged within the complex concept we label as “personal faith.” Specifically, questions relating to the role and significance of prayer often include other actions and practices such as Bible reading, saying grace, or employing such physical accoutrements as spinning wheels or beads that are systematically passed through one’s fingers.

In recent years, the increasingly popular term used to describe personal faith is “spirituality,” which overlaps with religion. Distinctions between “religion” and “spirituality” are controversial. A recent source states that it is “an open question whether the practice of spirituality outside religion can be adequately defined” (Hood, Hill, & Spilka, 2009, p. 9). These authors, however, include prayer and meditation as spiritual disciplines. Zinnbauer and Pargament (2005) call spirituality a search for the sacred and consider it of broader personal utility than religion. At present, the dominant position among psychology researchers treats spirituality as the personalization of religion. We cannot readily resolve this issue. For the purposes of the discussion in this volume, prayer conceptualized as personal communication between an individual and his or her God may include both personal and institutional elements of religion.

RELATIONS BETWEEN RELIGION AND PSYCHOLOGY

The Issue of Personal Involvement

Prayer is rarely viewed dispassionately. It is an activity that elicits the deepest of human feelings. However, religious inclinations for predispositions do not necessarily compromise an objective psychological view of prayer. In fact, theology might even properly serve as a guide to developing valid psychological theory (Spilka, 1976; Vaux, 1990).

The Influence of Culture

The psychological study of prayer is subject to myriad social forces that subtly influence all members of society, including scientists. Historically conditioned cultural values structure not only our language but also our thought processes. So, we must remain well aware of our potential biases and make every effort to be objective even if we cannot be totally detached.

Questions of Bias: Mixing Religion, Science, and Psychology

When controversial topics are studied, one's assumptions and biases are often masked or disguised. Language and one's choice of particular phraseologies may subtly disguise values that violate scientific objectivity. The fact that religion was formerly long regarded as a "taboo topic" in psychology testifies to psychologists' sensitivity to studying the role of faith (Farberow, 1963). Although this hands-off orientation has been changing for some time, a persisting difficulty concerns social scientists who are religiously affiliated. When they write about religion and prayer, it is exceptionally difficult to avoid theological biases (Hinnebusch, 1969; Moore, 1959; Tyrrell, 1985). Their writings abound with judgments about the soul and spirit in prayer, "higher" and "lower" or "mature" and "immature" forms of prayer, "proper" ways of praying, descriptions of "true" prayer, discussions of the objective "effectiveness" of prayer, and getting one's prayers "answered." Some of these issues are appropriate for research, while others are not.

Among early scholars, Strickland (1924) expressed doubts about psychological approaches to prayer because he believed that the "traditional empirical method shuts off all reference to divine agency in human experience" (p. 216). Dresser (1929) declared that the "essence of prayer may be a divine-human give and take" (p. 58). Based on these perspectives, religion is inherently mixed with psychology, thus raising valid questions about the objective observation and classification of the characteristics of human religious/spiritual behavior. In this book, our task is to observe and psychologically infer, not to convert anyone to any particular point of view.

PSYCHOLOGY AS A SCIENCE: AN UNDERSTANDING

Many people like the term "science" because it conveys a rigorous, no-nonsense image that embraces everything from the atomic to the astrophysical realm. Unfortunately, the term is also occasionally appropriated to justify activities and beliefs that stray way beyond the limits of the scientific method. Thus, we too often hear of para-science, astrological science, occult science, spiritual science, divine

science, metascience, various forms of mental science, paranormality, parapsychology, and similar appellations. In relation to the study of prayer, there is a strong desire to obtain evidence that it “works,” as we further demonstrate later in this chapter. Indeed, we show that research supports the hypothesis that prayer assists people in coping with the trials of life. On the other hand, there are assertions that praying can bring about specific tangible outcomes. As scientists, we accept such claims as hypotheses to be evaluated. Later in this book, we examine both sides of this controversy scientifically, carefully noting precisely how the operationalization of “works” can differ greatly from practitioner to scientist.

Science and the Need for Theory

In science, theories must be *explicit*. Noted psychologist Kurt Lewin (1951, p. 169) stated, “There is nothing so practical as a good theory.” A theory tells us what findings should be regarded as important and what is truly irrelevant. It provides guidance and direction for our work, and it must eventuate in hypotheses, explanatory statements that are testable. Theories are never fully proved scientifically, only disproved (or, perhaps more often, they are simply abandoned for lack of sustained interest owing to conflicting results). Exceptions never prove rules, only *disprove* them. Hypothesis testing has a high probability of resulting in modifications to existing views or the creation of new theory, which is then subjected to the same assessment process all over again.

Being Sensitive to All Sources of Information

Theological and inspirational writing on prayer is prodigious, and some of it is relevant to a psychology of prayer. Religionists write about perceptions, cognitions, and motivations for prayer and speak of individual hopes and aspirations as part of the process of prayer. Additionally, they offer their assessments of the efficacy of prayer. In other words, they allude to a psychology of expectations and attributions about the praying person and the deity that is the object of prayer. We may find some interesting psychological insights and observations offered by religionists that are not usually considered by psychologists. In the following section, we select and expand upon ideas from this literature for our psychology of prayer.

THE DEFINITION OF PRAYER

In our discussion thus far, we have relied on the general understanding of prayer that most people in our society hold. A specifically scientific approach requires greater focus. Therefore, we need to define prayer more precisely. Some 21 years after the publication of William James's noteworthy *Varieties of Religious Experience*, K. R. Stolz (1923) stated emphatically that "prayer may be simply and comprehensively defined as man's intercourse with God" (p. 18). This view posits a specific relationship between two beings. Clearly the relationship is not between equals, involving as it does the human being seeking an ideal connection with a deity. Such an effort implies that the weaker member of this paired duo turns to the stronger for help, and indeed this is the chief feature of most kinds of prayer. Given this perspective, Buttrick (1942) ascribes a certain degree of "lowliness" (p. 33) to the one doing the praying.

Moving closer to the present, Dubois-Dumee (1989) endorses this view of prayer by declaring that "prayers are ways to God" (p. 6). Similarly, Beckman (1995), for whom prayers are channels for the purpose of communication, describes "prayer as the name we give to the experience of being in communication with God" (p. 8). This definition directs us to focus on prayer's experiential nature and its communicative essence, which we shortly detail. Buttrick (1970) stressed the interpersonal conversational quality of man-God interaction, which he adapted from Buber's I-thou format. He saw God speaking for the first time through his act of creating human beings. This issue of the Deity initiating prayer and then the individual's responses possibly is a common theological interpretation, not a psychological insight.

Contemporary definitions generally emphasize that prayer is an act of communication, often employing such terms as "address" or "request," with "need" constituting the most frequent motivation for initiating prayer (Janssen, De Hart, & Den Draak, 1990). The same emphasis is found in current dictionaries, where we encounter such phrases as "reverent petition," "fervent request," and "earnest request." The classic Merriam-Webster dictionary definition stresses entreaty, appeal, and supplication. Such other terms as "adoration," "communion," and "devotion" also appear. In the next chapter we further explore how some of these popular notions can suggest

surprisingly diverse psychological conceptions, understandings, and behavior.¹

Directions Offered by Definitions

Attempts to define prayer, especially in inspirational writing, focus on the personal–theological significance of the process. Why pray? Why communicate in this particular way with God? Harkness (1948) cites the shorter Westminster Catechism to the effect that “prayer is an offering up of our desires unto God for things agreeable to His will” (p. 26). This theological assertion enriches our understanding of prayer as a behavior by bringing personal needs and wants into the picture. Prayer is thus responsive communicative behavior colored by individual motives (i.e., wants or cravings) that are inherent in simply being human.

The issue of “needs” requires additional specification. A need implies a shortcoming, deficiency, or weakness that must be corrected. As Hallesby (1975) put it, “Prayer has been ordained only for the helpless. . . . Prayer and helplessness are inseparable” (p. 17). Most motivational theorists posit wants and inadequacies that produce stress and tension when they go unsatisfied. Many commentators broaden the concept further beyond merely meeting one’s needs. In part, they see prayer as offering a potential for individual growth, not just a means of overcoming some shortfall or failing.

Prayer as Communication

Prayer is communication. Through it, one relates to and even identifies with the Divine. The inspirational literature on prayer and praying emphasizes “loving God,” “union with God,” and a host of similar terms such as “praise,” “adoration” and the like. A relationship exists between one who prays (i.e., the *pray-er*) and the Entity prayed to, with the pray-er bringing to this interaction various understandings and expectations. Clearly, pray-ers attribute power to God and in most instances anticipate benevolence on the part of the Deity. This anticipation easily translates into a belief that one has gained additional protection and safety, which results in greater peace of mind. In this instance, a sense of helplessness has been countered by an increase in one’s sense of control, even if that control is only

vicariously experienced. This key role for prayer, giving one a greater sense of control, is of course part of the larger realms of religion and spirituality, which appear to correlate positively with psychological and physical well-being (McCullough & Willoughby, 2009). Almost everyone prays at one time or another. Each of us has been exposed to ideas that overwhelmingly depict worship and prayer in positive terms. Images of hope, promise, reward, and desired potential are part of what motivates prayer and other religious activities. In essence, someone who prays is likely to have been well conditioned culturally to expect a positive outcome to his or her prayer.

Prayer as Conversation

The social-communicative aspect of prayer may be its most evident feature (Baesler, 2003). Whether it is psychologically conceived as occurring between friends or between a child and her father (Barclay, 1962; Herman, 1921), the relationship involved in prayer rapidly increases in complexity. Clearly, to practitioners prayer is no ordinary conversation (Ladd, Vreugdenhil, Ladd, & Cook, in press). As we noted, it is certainly not regarded as transpiring between equals, either by those who pray or by researchers. Phillips (1981) appropriately states that “it is the status of the object addressed which determines the grammar of the talk; it is no longer people’s daily discourse” (p. 41). Most religious writers expend a great deal of energy defining what that “right relationship” between a Deity and a suppliant should be, and though it is not always openly acknowledged, factors such as ingratiation are commonly observed. The one who prays frequently thus opens his prayer by acknowledging the high status, power, special concerns, and mercy of God. Feelings are invariably expressed about when and where one should pray, the state of mind of the pray-er, the methods of prayer, the motives for prayer, the forms of prayer, and a host of other considerations. Simply put, prayer constitutes a highly significant “conversation,” with important implications for future occurrences.

We can define prayer as an appeal to a higher power, invariably a deity conceptualized in a relational sense. It can be formal or conversational, enunciated or silent, utilizing written words, song lyrics, or contemporaneous utterances; it can be carefully circumscribed or spontaneous, public or private, involving gestures, body postures, oral formulas, repetition, concentration on particular topics, meditation,

and various emotions; it can also stimulate or be stimulated by our emotions. Prayers are most commonly individual creations largely shaped by the doctrines and practices of our religious institutions. They may be premised on various customs and given at set times or during particular functions—for example, on arising, at meals, or before retiring for the night.

A Brief Note on Definition and Purpose

As we suggested earlier, there is an aspect of making an appeal through prayer, not only for things one lacks or for one's shortcomings but also for personal betterment, progress, and growth. Such appeals need not be solely for oneself, but can be for others, communities, nations, humanity, or those who have died or will shortly be born; they can focus on past behavior or future possibilities. In sum, efforts to encapsulate prayer in a few pithy words are likely to short-change its potential scientific richness. We suggest that the best definition of "prayer" envisages a direction—in fact, many directions—into the pray-er's cognitions, motivations, personality, and social behavior. Let us now introduce the psychological underpinnings these terms imply.

THE CONTENT AND EXPRESSION OF PRAYER

Prayer and Religious Experience

One goal of prayer may be to stimulate religious experience, to enter into a state where one "encounters" God, experiences nirvana, or has an ethereal feeling that conveys a sense of unity and completeness, along with new knowledge and positive emotions such as joy and bliss (Greeley, 1974). Lewis (1959) thus identifies "prayer with all religious experience . . . the live moments of religious awareness" (p. 244). He further states that "an enlivened awareness of God is induced and maintained" (p. 177) through prayer. From a psychodynamic perspective, Pruyser (1968) suggests that the way one prays is designed "to enhance an imaginative form of thought" (p. 72), which in turn results in religious experience. In other words, prayer likely activates unconscious factors that then stimulate one to produce conscious ideas.

Associating religious experience with prayer implies the "true"

goal of prayer. Even though some kind of experience is present in virtually every human activity, including prayer, much of what we experience in our daily lives is far from what the true religionist desires from prayer. And yet, often there may be little more to praying than habitual responses or mechanical petitionary appeals.

The Efficacy of Prayer

People may pray for a variety of reasons, but if for any reason they thought prayer was ineffective, the chances are great that they would cease praying or at least offer fewer prayers. Of course, the question largely hinges upon what “effective” means. Does it imply that the laws of nature must be overturned—that objective reality needs to be changed—to satisfy our desires? Or, in contrast, might the significance of “efficacy” be found in what happens to the one who prays? Established religion suggests that both possibilities pertain here.

Even in earlier times, most people believed that the effects of prayer were largely focused on the praying individual. In one of the first empirical surveys, Beck (1906) reported that 98% of his sample “regularly feel the need for prayer” (p. 118) and that 83% “believed the results of prayer to be wholly subjective” (p. 119). What we may be observing in these studies is the seemingly ever-present practical streak in most all Americans. Nowadays we might say, “If it isn’t broken, don’t fix it.” James (1907), who stated the pragmatic principle for religion, asserted that “if the hypothesis of God works satisfactorily in the widest sense of the word, it is true” (p. 299). That “widest sense” motivationally presupposes that prayer is a major component of God’s felt presence.

We are interested in the psychosocial mechanisms underlying these self-reflective experiential effects of prayer. Most of the early psychologists of religion adopted the terms “suggestion” and “auto-suggestion” to explain such mechanisms (Buttrick, 1942; Raymond, 1907; Stolz, 1913). The implication was that we could be “suggesting” to ourselves the beneficial effects of prayer and thereby be triggering a kind of placebo mechanism. This idea was extended by Festinger, Riecken, and Schachter (1956) and others who observe that when people engage in an activity they often justify it to themselves to prove the utility and significance of their actions. Though the placebo and justification effects may constitute a part of prayer’s effects, they are far from a totally sufficient explanation for prayer’s manifold effects.

THE NEED FOR THEORY

Science demands a framework featuring theories for whatever is being studied. Of course, one theory cannot cover all that we desire to explain. Although we primarily focus on an approach that emphasizes prayer as a complex of coping responses, we must not forget that certain theories restrict their consideration of prayer to specific behavioral and social contexts. We deal with these specific contexts in succeeding chapters. For example, in Chapter 4 we concern ourselves with developmental research, focusing on theories that explain growth and change over time. In Chapters 5–7, we address how to cope with particular problems and stresses. Quite different theoretical perspectives are called upon to help us understand prayer in relation to mental health and physical health. In addition, prayer serves a number of roles within relationships, especially those involving marriage and family. What follows in the next session is a general theoretical scheme, versions and aspects of which appear throughout this book. This general scheme provides a malleable but basic theoretical structure that undergirds our argument throughout this volume.

Concern with Petition

McCullough and Larson (1999) and Pargament (1987, 1992, 1995, 1997) propose models for understanding prayer that are both petitional and not petitional, and in Chapter 2 we discuss them both in detail. Here, though, we focus on prayer that is intended to meet unfulfilled needs, that is, petitional ones. In most instances a person prays to gain something he believes cannot be gained by means other than through appeal to the Deity. God has the power, while the supplicant clearly does not. The specific goals of petitional, or petitionary, prayer can be quite diverse (Capps, 1982). Whether the object of such appeals is minor or serious, the pray-er feels relatively incapable of independently achieving what she desires. The gap between what is wanted and what can be attained by oneself likely causes stress.

The Presence and Meaning of Stress

In simple terms, stress most usually arises in circumstances in which psychological, social, or physical pressure requires a coping response. Although there are situations where stress aids one's adaptation and

is beneficial, in most instances stress adversely affects one's well-being (Lazarus & Folkman, 1984). A coping reaction may, in turn, be psychological, social, or physiological—or all three, and *prayer may function as a significant coping mechanism*.

Stress, which is virtually ever present, constitutes a serious problem, both psychologically and physically. In addition, its effects frequently persist long after the stress is first produced. The effects of Hurricane Katrina, for example, apparently increased the incidence of heart attacks some threefold during the 4 years following the storm's devastating incursion into the Gulf Coast states in August 2005 (Grayson, 2009; McConaughy, 2009).

Daily stresses that are usually taken for granted may be consciously ignored, and yet they can become chronic and have serious repercussions. For example, automobile traffic is commonly regarded as an annoying but tolerable aspect of modern life; however, whether one is a driver or passenger, the probability of having a heart attack triples during the first hour following exposure to traffic congestion (Ballantyne, 2009; DeNoon, 2009; Mozes, 2009). This stress reaction may be further compounded by the inhalation of exhaust fumes (Tonne et al., 2007).

Recent nationwide data suggest that 37% of respondents utilize prayer to manage stress. Among the possible means employed to deal with stress, prayer ranked in eighth place in frequency of use; however, in terms of its perceived helpfulness, it ranked first, with 77% of the sample considering it their most effective stress management practice (American Psychological Association, 2008).

We should be highly cautious in claiming that prayer effectively counters stress. Pargament and Park (1995) note that prayer may function in two ways, as an active coping strategy or as “escapist and diversionary” (p. 22). It appears that both roles are useful in reducing stress.

The Issue of Control

There is a massive literature on the sense of control felt by individuals. Most of this research focuses on whether one personally feels in control in general but also in specific situations, with the studies usually exploring whether the control is vested in oneself, others, is a chance phenomenon, or rather lies in the hands of God (Kopplin, 1976; Levenson, 1973; Rotter, 1966). Thus, researchers commonly reference

“locus of control.” Ever since Rotter (1966) first conceptualized this variable as either internal or external, it has occupied a central role in the study of personality, coping, and adjustment. Control has also been regarded as a significant preoccupation in the existing research on religion and prayer. Stress occurs whenever one’s personal abilities and defenses are relatively unsuccessful in responding to the challenges one faces. Prayer is often a “best” attempt to impose vicarious control, which indirectly enhances one’s sense of internal control.

Stress and Control

Control and power are basic life issues (Lazarus & Folkman, 1984; Rotter, 1966). Generally, a person experiences lower levels of stress when she feels some degree of control in stressful situations (Haan, 1982; Lazarus, 1966; Seligman, 1975; Siegel, Anderman, & Schrimshaw, 2001).

Control viewed as a matter of coping and adjustment was initially defined in terms of whether a person has internal control, versus its being vested in some external source (Rotter, 1966). Shortly thereafter, Levenson (1973) extended external control to include references to chance and powerful others. Kopplin (1976) soon added God’s control. Pargament and colleagues (1988) then posited three distinct types of prayerful appeals to God:

1. The *deferring* approach, in which the person makes an appeal and concludes that “now the problem is in the hands of God.”
2. The *collaborative* style, which assumes that the individual and the Deity work together to resolve the difficulty.
3. The *self-directed* orientation, which recognizes the role and place of God but primarily regards the problem as resolvable by the pray-er. In this type of prayer, the supplicant “talks to” or “discusses the problem” with the Deity. Joris (2008) points out that this approach is reassuring, validating the pray-er’s beliefs, with God serving as a “therapist” that enhances one’s sense of control, thereby alleviating one’s stress.

A sense of personal control may be equivalent to belief in a benevolent controlling God (Gloss, 2009; Kay, Whitson, Gaucher, & Galinsky, 2009). Being religious and utilizing prayer signify a close relationship with one’s God that negates powerlessness.

Navrot and colleagues (1995) undertook an initial study of relationships between prayer and seven types of control: Levenson's (1973) three control scales (Internal, Chance, and Powerful Others), Kopplin's (1976) God control measure, and the instruments of Pargament and colleagues (1988). Collaborative, self-directive, and deferring modes were related to forms of prayer defined as Confession, Petition, Thanksgiving, Ritual, Meditation, Self-improvement, Intercessory, and Habitual (Navrot et al., 1995). Although this work should be confirmed and its implications further explored, 37 of the 56 correlations examined attained significance at the .05 level. These numbers indicate a very complex pattern of relationships among the forms of prayer and control. Generally, an internal locus of control correlated negatively with the prayer measures, suggesting that when people pray they may be relinquishing a sense of control and personal efficacy to their God. In its place, they attain a form of vicarious control by aligning themselves with God's power. When one's internal locus of control is associated with praying, prayer's effects are perceived as primarily related to the individual, whereas an external locus of control conceives of prayer as more globally influential. In other words, in the latter situation God is perceived as in charge of the larger picture—the world. In their analysis, Pargament and colleagues' control scales revealed positive ties among all prayer forms and collaborative control, the idea that the individual collaborates with, or works along with, God. The results with Self-directive control, where the person acts independently of God, paralleled the findings for internal control. The judgment that prayer was objectively efficacious was closely associated with collaborative control, again suggesting that the joint efforts of both the pray-er and her Deity normally result in objective change.

Prayer, Stress, and Control

Among the many possible reactions a person may have to stress, Pargament (1997) asserts that “when people are stressed, the religious reservoir is often tapped” (p. 5). A study of more than 1,700 young people by Ross (1950) found that the two most common reasons given for praying were that “God listens to and answers your prayers” and “it helps you in times of stress” (p. 63). Pargament further notes that “people have looked as much to religion in their search for health as they have to medicine” (p. 54). This view is objectively confirmed

in this volume's Chapter 7, where we show that prayer is a common recourse when illness and disability strike. A representative example is the mental status of renal transplant patients who must confront a wide variety of stressors such as fear of kidney rejection, high costs, undesirable physical symptoms, and anxiety about social acceptance (among other possibilities). Again, the most common coping mechanism employed was prayer (Sutton & Murphy, 1989). In a specific nonhealth illustration, Kirkpatrick (2005) cites Argyle and Beit-Hallahmi (1975) to the effect that prayer helps men in battle cope with stress and fear more than any other resource.

As noted earlier, recent data available on a national sample of almost 1,800 respondents indicated what people do to counter stress. Prayer was in eighth place, with 37%. In this survey, individuals reported more than one, and often many, techniques. Of those mentioning prayer, about three-quarters (77%) regarded it as their most effective stress-management activity. Seventy-five percent of these same people placed going to church and attending religious services in second place (American Psychological Association, 2008).

Religious coping is a complex phenomenon. Pargament, Koenig, and Perez (2000) consider its key facets to be: (1) the search for meaning; (2) the search for control; (3) comfort/spirituality; (4) intimacy/spirituality; and (5) life transformation. We hold that petitionary prayer is primarily a coping strategy. Even though this theoretical discussion is presented solely for prayer as petition, it may be equally relevant to other forms of prayer.

Social Meaning and Social Context

Although we usually think of prayer as an individual, usually solitary, activity, theologically, sociologically, and psychologically prayers frequently relate pray-ers to others in a variety of ways. Theologically, *The HarperCollins Encyclopedia of Catholicism* (McBrien, 1995) observes that prayer should deepen one's awareness of others. Helminiak (personal communication, November 20, 2009) additionally points out that Catholic theology embraces a variety of social factors in prayer.

These social themes are extensively observed in worship liturgies where social responsibilities to others and fellow worshippers are stressed (Buttrick, 1942; Heiler, 1932/1958). The social nature of congregations articulating such prayers probably contributes to

the creation of mutually supportive social communities (Pargament, 1997). Research suggests that such sociality is also a powerful stress reducer (Uchino, 2004).

On the sociological front, Pruyser (1968) detailed how socio-cultural influences affect the pray-er through how her prayers are offered. He pointed out how the expectations of one's religious tradition cause the pray-er to select certain words and how these are specifically patterned. One classic example of this revolves around the issue of to whom the prayer is addressed. While some traditions use a wide variety of names, others use only a few, and still others contend that the Deity's name should not be spoken at all during the prayer. This overall pattern of faith and prayer is learned early in life from others in settings ranging from the home to religious institutions. Ladd and McIntosh (2008) similarly have asserted that "prayer's role as a provider of contextual meaning and social interactions (tangible or otherwise) keeps a person's perceptions of internal or external stress well under control" (p. 34). Understanding this interplay of personal and social factors also provides insight into how prayer helps people experience control in pursuing personal stress reduction for themselves.

Prayer and Relaxation

Both the act of praying and the content of prayers are likely to be gratifying to the person praying. As Chapter 3 makes clear, there are many types of prayer, and while they may have different effects, they also have a few things in common. One effect common to all forms of prayer is relaxation.

Traditionally, psychology has associated prayer with relaxation (Benson, 1975; Buttrick, 1942; Goldberger & Breznitz, 1982).² Some of the research in this area has confirmed the potential of prayer to induce a relaxation response. We see later in this volume that the ramifications of meditation are considerable. One can consciously attempt to relax; however, the induction of relaxation via prayer may signify heightened feelings of personal security and a reduction of anxiety plus a sense of growth, enhancement, and self-actualization.

What is distinctly lacking in the literature is recognition that praying also has the capacity to *increase* tension. For instance, prayers that relate to painful confessions or that highlight the disjunction between the practitioner's actual self and ideal spiritual self may

result in increased anxiety. Depending on other factors, the escalation of distress may be either temporary (as in momentary catharsis) or more persistent. In addition, prayers emphasizing personal concerns are, in some instances, commonly associated with narcissism (Ladd, Ladd, Ashbaugh, et al., 2007). We also have seen (Ladd & Ladd, 2012) that, while prayers are most often thought of as linked to the development of virtuous lives (e.g., loving, joyful, peaceful, patient, kind, generous, faithful, gentle, self-controlled), prayers with an overriding emphasis on the self are potentially tied to spiritual vices (e.g., impure, grudge-holding, jealous, angry, quarrelsome, envious, morally loose, conceited, divisive issues). In other words, prayer too often is conceptualized as a purely positive endeavor. It is difficult, if not impossible, to name any behavior in which humans engage that—when taken to an extreme or under some specific set of circumstances—does not also have the potential for negative as well as positive outcomes. Prayer is certainly no exception, and investigations that explore the full range of possibilities are critical.

SUMMARY

Prayer, as part of a large religious and spiritual complex, is highly enmeshed in the vast matrix of beliefs and experiences that constitute personal faith and religiosity. As behavior, praying occupies a special position as volitional action that reflects and contributes to an individual's orientation toward life in general.

Prayer has always been a complex phenomenon from the vantage point of both religion and theology. Once psychologists decided to examine it, new and different aspects of this complexity became evident, and further examination continued to reveal additional correlates and roles for both prayer and the pray-er.

We have introduced various aspects of psychology to illustrate their pertinence to prayer. These areas are much more complex than we have discussed thus far and therefore will be further detailed in Chapter 2. In addition, such constructs as motivation, cognition, emotion, and social psychology are often intertwined. In fact, the individual is an integrated totality, and our parsing that totality into specific elements merely enables us to create convenient abstractions that make it possible to discuss and form hypotheses about human behavior as it relates to prayer.

In succeeding pages, we investigate the multiform character of prayer and some possible reasons for its diverse incarnations in different situations. We discuss what prayer portends psychologically for the pray-er. We scrutinize specifically how the concept and practice of prayer develop throughout one's lifespan. And we note that efforts have been made to study the various interrelationships among prayer, personality, and difficult life issues. Some of this work is highly pertinent to better appreciating prayer's contribution to both physical and mental health and healing. That prayer helps one better cope and adjust to life's challenges has become increasingly evident over time. Thus, understanding prayer is central to our evolving psychology of religion.

NOTES

1. These definitions resulted from an Internet search of the following sites: *http://dictionary.die.net/prayer*, *www.Yourdictionary.com/prayer*, *http://mw1.merriam-webs.com/dictionary/prayer*, and *www.thefreedictionary.com/p/prayer*.
2. Andresen's (2000) excellent review of the immense literature in this area provides a helpful entrée into this domain.

Copyright © 2013 The Guilford Press