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Abstract

The authors review findings from the psychology of religion showing that believers' perceived relationships with God meet the definitional criteria for attachment relationships. They also review evidence for associations between aspects of religion and individual differences in interpersonal attachment security and insecurity. They focus on two developmental pathways to religion. The first is a "compensation" pathway involving distress regulation in the context of insecure attachment and past experiences of insensitive caregiving. Research suggests that religion as compensation might set in motion an "earned security" process for individuals who are insecure with respect to attachment. The second is a "correspondence" pathway based on secure attachment and past experiences with sensitive caregivers who were religious. The authors also discuss conceptual limitations of a narrow religion-as-attachment model and propose a more inclusive framework that accommodates concepts such as mindfulness and "nonattachment" from nontheistic religions such as Buddhism and New Age spirituality.

Keywords

attachment, internal working models, religion, Buddhism, mindfulness

We admitted we were powerless . . . that our lives had become unmanageable. We came to believe that a power greater than ourselves could restore us to sanity. We made a decision to turn our will and our lives over to the care of God. . . . We sought through prayer and meditation to improve our conscious contact with God.

Twelve Steps of Alcoholics Anonymous

Over the life course, most human beings form one or more socioemotional attachments with other people who, under ideal circumstances, provide protection, comfort, guidance, and emotional support (Bowlby, 1982). Unfortunately, no human attachment figure can protect a person from atrocities such as tsunamis, earthquakes, terrorist attacks, illness, aging, or eventual death, let alone many everyday injuries and disappointments. To be human—and especially to be a human adult—requires coming to grips with the fact that the protective power of one's "earthly" attachment figures is severely limited. What has therefore seemed natural and necessary to the vast majority of people in recorded history—and presumably long before histories were written—is to place one or more cosmic attachment figures at the center of one's life, figures who care about one's safety (benevolence) and are always able to provide protection (omnipotence).

In this article we argue that attachment theory and research provide a plausible framework for studying and understanding core aspects of many religions, particularly believers' perceptions of God or other supernatural beings and their own

private relationships with these divine figures. We open with a brief outline of attachment theory and research, focusing on both normative processes and individual differences. We then review research showing that a believer's perceived relationship with God meets the defining criteria for attachment relationships and hence functions psychologically much like other attachments. Next, we review research on connections between particular religious phenomena and attachment-related individual differences in the "earthly" realm of interpersonal relationships. Finally, we discuss the conceptual boundaries of a religion-as-attachment model and propose a more inclusive approach to theory and research that may encompass nontheistic religious concepts and practices.

Outline of Attachment Theory and Research

Attachment theory (Bowlby, 1982) was initially grounded in the observation that human beings appear to be born with an innate psychobiological system (the *attachment behavioral system*) that motivates them to seek proximity to significant

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others (*attachment figures*) in times of need as a way of protecting themselves from threats and alleviating distress. Bowlby (1973) also noted that parameters of this system tend to be adjusted based on interactions with particular attachment figures, especially (but not exclusively) early in life (e.g., Ainsworth, Blehar, Waters, & Wall, 1978). The theory conceptualizes these relatively stable parameter adjustments in terms of cognitive-affective representations that Bowlby (1973) called “internal working models” (IWMs) of self and relationship partners.

Although the term *attachment* has broad connotations in everyday language, Bowlby (1982) used it more narrowly to denote an affectional bond to a person who accomplishes two important functions: (a) providing a *safe haven* in times of threat or stress and (b) serving as a secure base from which to explore the environment and develop new mental and physical skills. Human infants form this kind of bond with primary caregivers and show preference for them over other people in moments of uncertainty or distress. They also resist separation from these attachment figures, especially under novel or worrisome circumstances (Ainsworth, 1985). Attachment relationships are the main contexts within which individuals (and especially infants) are helped to regulate distress, learn emotion-regulation skills, and gain a sense of felt security.

Attachment security is characterized by confidence in a caregiver’s capacity and willingness to provide protection and comfort. It is also characterized by an ability to distinguish between situations in which protection is needed and ones in which it is not and an ability to flexibly shift attention and behavioral engagement between attachment and nonattachment activities (e.g., exploration, learning; Main, 1991). In contrast, attachment insecurities are characterized by difficulties in distinguishing safe from unsafe situations and by the use of mental resources to deal with anxiety caused by unreliable or unavailable caregivers. Insecurely attached children either defensively minimize proximity seeking to protective others (a strategy called avoidant attachment) or maximize them (anxious attachment). In more extreme cases of inadequate care, insecure attachment strategies are “disorganized” (Main, 1991), a childhood condition that foreshadows later psychopathology (e.g., dissociative or anxiety disorders; Lyons-Ruth & Jacobvitz, 2008).

Bowlby (e.g., 1979, 1980) emphasized that the attachment behavioral system is active “from the cradle to the grave,” and he suggested that long-term adult romantic or marital relationships often involve attachment bonds. Based on this notion, social and personality psychologists (e.g., Hazan & Shaver, 1987) began to study attachment-related aspects of adult relationships. More than two decades later, we can say with a high degree of certainty that long-term romantic relationships do often serve attachment-related functions (for reviews, see Feeney, 2008; Mikulincer & Shaver, 2007; Zeifman & Hazan, 2008). For example, the formation of long-term romantic relationships follows a temporal sequence similar to

that of child–caregiver relationships, beginning with an open, nonexclusive interest in the other, via infatuation, to an emphasis on the safe haven and secure base components of the relationship. In addition, loss of or involuntary separation from one’s romantic partner tends to be highly stressful and to follow the sequence of protest, despair, and reorganization or detachment described as typical for children in corresponding circumstances (Shaver & Fraley, 2008).

Numerous experimental studies have confirmed the central role of attachment-related processes in adult relationships. For example, following threats that activated the attachment system (e.g., separation threats), Mikulincer, Gillath, and Shaver (2002) found an increase in the cognitive accessibility of mental representations (e.g., names) of participants’ attachment figures. Similarly, just as attachment security in children facilitates prosocial development (e.g., of empathic behavior) and counteracts antisocial development, experimental “security boosts” (e.g., repeated subliminal presentations of the name of one’s primary attachment figure) increase compassionate, altruistic behavior (Mikulincer, Shaver, Gillath, & Nitzberg, 2005) and decrease intolerance of out-group members (Mikulincer & Shaver, 2001).

In addition to finding evidence for these general processes addressed by attachment theory, social and personality psychologists, beginning with Hazan and Shaver (1987), have found stable individual differences in attachment style (a person’s expectations, concerns, and typical behavior in close relationships). These individual differences parallel the ones delineated by Ainsworth and colleagues (1978) in studies of infant–mother attachment and can be conceptualized as regions in a two-dimensional space (e.g., Bartholomew & Horowitz, 1991; Brennan, Clark, & Shaver, 1998). The first dimension, *avoidant* attachment, reflects the extent to which a person distrusts romantic partners’ good will and strives to maintain behavioral independence and emotional distance from partners. The second dimension, *anxious* attachment, reflects the degree to which a person worries that a partner will not be available in times of need, partly because the anxiously attached person doubts his or her own lovability and value. People who score low on both insecurity dimensions are said to be secure or to have a secure attachment style. The two dimensions can be measured reliably and validly with self-report measures, such as the Experiences in Close Relationships inventory (Brennan et al., 1998), and scores on the two dimensions are associated in theoretically predictable ways with interpersonal functioning, affect regulation, and relationship satisfaction (for a review, see Mikulincer & Shaver, 2007).

Religion and Attachment: Normative Aspects

The idea that core aspects of religious experience and behavior can be understood within an attachment framework was

pioneered by Lee Kirkpatrick (1994, 2005; Kirkpatrick & Shaver, 1990; for a review, see Granqvist & Kirkpatrick, 2008). In particular, Kirkpatrick proposed that believers' perceived relationships with God tend to meet the defining criteria for attachment relationships and hence function psychologically like other attachments (e.g., providing a safe haven in times of threat or distress and serving as a secure base for risky or challenging endeavors). Here, we highlight evidence concerning normative aspects of attachment-like relationships with God.

Phenotypic Resemblances Between Parental Attachment and Believers' Relationships With God. An obvious starting point for anyone wishing to apply attachment theory and research to the study of religion is the notion that a person can have a "personal relationship" with God,¹ a notion that is especially pronounced within theistic faith traditions (see Granqvist & Kirkpatrick, 2008; Kirkpatrick, 2005). Indeed, the term religion stems from the Latin *religare* or *relegere*, meaning "being bound" (see Ferm, 1945). When asked which of the following alternatives best describes Americans' views of faith—"a set of beliefs; membership in a church or synagogue; finding meaning in life; or a relationship with God"—the most popular alternative by far was the last (Gallup & Jones, 1989).

A second point of departure for anyone thinking about attachment and religion is the centrality of "love" in people's perceived relationships with God (e.g., James, 1902). The "love" experienced by a worshipper in the context of a relationship with God, however, is different from that experienced in romantic relationships in that the former does not usually involve sexuality or the believer's provision of care to God. In fact, the "love" that is experienced in the context of a relationship with God resembles more closely the prototypical attachment of a child to an adult attachment figure.

The images of God that one finds in religious texts (perhaps most notably the Psalms of the Old Testament) and in believers' descriptions of God's traits (in psychological studies) are highly similar to parental attributes. For example, factor analytic studies reveal that the main underlying factors are "availability" (e.g., "gives comfort," "a warm-hearted refuge"; Tamayo & Desjardins, 1976) and "benevolence" (e.g., "comforting" and "protecting," and the reverse of "distant" and "inaccessible"; Gorsuch, 1968).

Of course, neither Kirkpatrick (2005) nor we claim to have invented the idea that images of God and images of parents are similar. This was one of Freud's (1927/1961) legacies to the psychology of religion. However, rather than viewing God as an exalted *father* figure, as Freud did, we concur with Kirkpatrick (2005) that it is more reasonable to view God as an exalted *attachment* figure, partly because God images contain just as many traditionally "maternal" as traditionally "paternal" attributes (for a more comprehensive, critical evaluation of the psychoanalysis of religion, see Granqvist, 2006).

Proximity Maintenance and Responses to Separation and Loss. Besides these phenotypic resemblances, psychological studies have found that believers' relationships with God generally meet the formal criteria for defining attachment relationships.² First, regarding the proximity-maintenance function of attachment, God is supposedly omnipresent—that is, always near by definition. Religions provide several means to make this a more personal and concrete experience, such as singing (e.g., "Nearer, my God, to thee") and visiting "God's home" (e.g., a cathedral or temple). The most direct and salient means of attaining closeness to God, however, is probably prayer (Granqvist & Kirkpatrick, 2008), which is "the most often practiced form of religiosity" (Trier & Shupe, 1991, p. 354).

Related to proximity maintenance is the inclination on the part of an attached individual to resist separation from his or her attachment figure and experiences of grief and anxiety following loss of, and actual or threatened involuntary separation from, the attachment figure. Determining whether God meets these criteria is difficult because one does not become physically separated from, or lose an observable relationship with, God as one might lose a human relationship partner, at least not in this life. It is noteworthy, however, that in most Christian religions, separation from God is portrayed as mentally torturous and essentially the same as hell. A painful and perhaps surprising example appears in Mother Teresa's (2007) posthumously published private papers:

Since [age] 49 or 50 this terrible sense of loss—this untold darkness—this loneliness, this continual longing for God—which gives me that pain deep down in my heart—Darkness is such that I really do not see . . . —the place of God in my soul is blank—There is no God in me—when the pain of longing is so great—I just long & long for God—and then it is that I feel—He does not want me—He is not there— . . . God does not want me—sometimes I just hear my own heart cry out—"My God" and nothing else comes. (pp. 1-2)

This experience was not unique to Mother Teresa. In religious and mystical literature, such states are often referred to as a "wilderness experience" or a "dark night of the soul" (St. John of the Cross, 1990). The best-known example is when Christ, nailed on the cross, cried out, "My God, My God, why hast Thou forsaken me?" In an experimental paraphrase of the situation in which Christ found himself, Birgegard and Granqvist (2004) subliminally exposed theistic (mostly Christian) believers to either a separation prime ("God has abandoned me") or attachment-neutral control primes ("people are walking," "God has many names") and examined whether the wish to be close to God increased as expected from pre- to postpriming. Although modest support was obtained for the prediction,

individual differences moderated the effects of the separation prime (as explained below).

God as a Safe Haven. Regarding the safe haven aspect of attachment, people are most likely to turn to God or other supernatural figures when they face situations that Bowlby (1982) believed activate the attachment system, such as illness, injury, or fatigue; frightening or alarming events; and separation or threat of separation from loved ones (Hood, Spilka, Hunsberger, & Gorsuch, 1996). People turn to God in times of distress, and the more distressing the situation is, the more likely they are to do so (Pargament, 1997). In highly distressing situations, the most likely religious or spiritual response is to pray to God (Argyle & Beit-Hallahmi, 1975), suggesting that private prayer in these situations may function as an analogue to attachment behavior (Kirkpatrick, 2005). Indeed, several studies show that prayer is an especially common method of coping with serious physical illnesses and injuries (Kirkpatrick, 2005; O'Brien, 1982).

With regard to frightening and alarming events, empirical research suggests that, as the famous claim (of unknown origin) put it, "There are no atheists in foxholes." For example, combat soldiers do pray frequently before, during, and after battle (Stouffer, 1949). In addition, research supports the claim that sudden religious conversions are most likely to occur during times of severe emotional distress and crisis (for reviews, see Kirkpatrick, 2005; Pargament, 1997). According to James (1902), the turning point of the conversion process is reached when individuals, such as the members of Alcoholics Anonymous quoted at the outset of this article, surrender themselves to God and place their problems in his hands.

Recent studies suggest that appraisal of threat does not require conscious processing to result in increased God-related thoughts (Birgegard & Granqvist, 2004; Mikulincer, Gurwitz, Shaver, & Granqvist, 2008). For example, in an experimental study explicitly set up to test the religion-as-attachment model in a Jewish sample of Israeli college students, participants showed increased mental access to the concept of God following subliminal exposure to threats (the words *failure* and *death*; Mikulincer et al., 2008).

Regarding separation and loss, research suggests that religiousness and prayer tend to increase following the death of a loved one or actual or threatened separation from loved ones and that religious beliefs are correlated with successful coping at such times (Kirkpatrick, 2005). In a prospective survey study of elderly Americans, the importance of religious or spiritual beliefs (but not church attendance) increased for the recently widowed as compared to a matched group of nonwidowed elders (Brown, Nesse, House, & Utz, 2004; for conceptually similar findings, see Cicirelli, 2004). In Brown and colleagues' (2004) study, grief over the loss decreased specifically as a function of the increased significance of the bereaved individual's religious beliefs, indicating that it may be the attachment component of the individual's religiousness

that is activated in such situations and contributes to a more favorable outcome.

A recent attachment experiment (Birgegard & Granqvist, 2004) corroborated some of the conclusions drawn previously in correlational research. In that experiment, theistic believers experienced an increase in their wish to be close to God when primed with a subliminal separation threat ("mother is gone") targeting their relationships with mother (i.e., the principal attachment figure in childhood) versus participants in an attachment-neutral control condition.

God as a Stronger and Wiser Secure Base. Bowlby (1982) said that children regard their attachment figures as "stronger" and "wiser" than themselves, making them especially appropriate as secure bases from which to explore the world and sometimes as consultants who have superior knowledge about puzzling features of the world. Regarding this issue, it is clear that believers typically perceive God to be very much stronger and wiser than themselves—in fact, omnipotent, omniscient, and omnipresent. Several lines of research bear on the issue of God as a secure base. In a comprehensive review of empirical research on religion and mental health (Batson, Schoenrade, & Ventis, 1993), intrinsic religiousness (i.e., religion as a "master motive" in one's life) was correlated with two forms of mental health, "freedom from worry and guilt" and "a sense of personal competence and control." Moreover, there is typically a considerable decrease in distress and a notable increase in well-being following religious conversion (Ullman, 1982), which—when viewed from the perspective of attachment theory—may suggest that the individual obtains felt security from his or her perceived encounter with God.

Several studies indicate, in addition, that the particular *aspects* of religious belief that relate most strongly to psychological well-being are the ones consistent with the religion-as-attachment model. For example, Pollner (1989) found in a large national sample that one dimension of religion, "divine relationships," predicted psychological well-being better than several other religion measures, even when numerous background factors (including church attendance) were statistically controlled. In another large-scale national survey, Poloma and Gallup (1991) found that prayer, particularly the experience of God during prayer, was more strongly correlated than other religion-related variables with several measures of well-being. Similarly, Kirkpatrick, Shillito, and Kellas (1999) found that belief in having a personal relationship with God predicted reduced loneliness even when other measures of interpersonal social support were statistically controlled. It should be noted that loneliness may be a particularly important outcome to consider because it has been thought to represent a perceived absence of an adequate attachment figure in one's life (Weiss, 1973).

If believers' perceived relationships with God qualify as attachment relationships, then something analogous to security versus insecurity of attachment to God should exist; that is,

some individuals should be able to rely on God as a safe haven and secure base to a larger extent than others. Furthermore, the former should enjoy certain psychological advantages from doing so, just as secure children and adults who are able to use their attachment figures as a secure base do.

In the first study of attachment and religion, Kirkpatrick and Shaver (1992) found that adults who described their relationship with God as secure (God being viewed as warm and responsive), as opposed to avoidant (God being viewed as distant and rejecting) or anxious (God being viewed as inconsistent and unreliable), scored lower on measures of loneliness or depression, anxiety, and physical illness. They also scored higher on general life satisfaction. Belavich and Pargament (2002) similarly documented associations between Kirkpatrick and Shaver's (1992) measure of attachment to God and styles of religious coping, suggesting that individuals who perceive God as a secure base use more "positive" religious coping strategies when a loved one is undergoing surgery (for other analogous findings, see Beck & McDonald, 2004; Rowatt & Kirkpatrick, 2002).

There is also evidence that the psychological benefits of perceiving God as a secure base appear to be especially large when other attachment relationships are insufficient or other attachment figures are unavailable. For example, Kirkpatrick and Shaver (1992) found that respondents who said their mothers were relatively insensitive but perceived God to be a reliable secure base appeared to benefit the most from their perceived relationship with God. In an intriguing parallel to these findings, Brown et al. (2004) found that increased religiousness following bereavement was associated with attenuated grief, particularly for individuals whose "secular" attachment orientation was insecure. Similarly, other religion variables (e.g., "positive" religious coping, intrinsic religiousness) tend to have their most beneficial effects in times of need (e.g., Smith, McCullough, & Poll, 2003).

In sum, a considerable body of theory and evidence supports Kirkpatrick's (2005) idea that believer-God relationships meet the defining criteria for attachment relationships. This is not to say there are no important differences between God and other attachment figures. Indeed, unlike God, other attachment figures are visible and audible. Also, attachment relationships with other human beings have a history of potentially observable interaction episodes. However, rather than invalidating an attachment conceptualization of religion, these differences may simply reflect cognitive development. A developing child acquires a capacity for symbolic thinking and for what developmental psychologists call a "theory of mind" (an ability to imagine and conceptualize other people's mental states), which jointly set the stage for attributing agency to unseen others (e.g., God; see Granqvist & Kirkpatrick, 2008). Nevertheless, such differences between religious attachments and secular, mundane attachments may make it advisable to consider religious

relationships to be attachment-*like* relationships rather than attachments proper.

Religion as Attachment: Individual Differences

We turn next to the topic of individual differences in attachment as they relate to religion. Just as individual differences in attachment security often modulate the output of the attachment system in actual, mundane relationships, they often modulate the effects of attachment processes in the context of believers' perceived relationships with God. Two general hypotheses have been suggested—the compensation hypothesis and the correspondence hypothesis—which are seen as delineating two distinct developmental pathways to religion (see Granqvist & Kirkpatrick, 2008). One of these paths is related to regulation of distress following experiences with insensitive caregivers (compensation), and the other is related to experiences with sensitive, religious caregivers (correspondence).

The Compensation Pathway. According to Bowlby (1982), the attachment system continually monitors whether an attachment figure is sufficiently near, attentive, responsive, and approving (Hazan & Shaver, 1994; Mikulincer & Shaver, 2007). A negative answer to the question, according to the theory, activates attachment behavior intended to restore an adequate degree of proximity. Under certain conditions, however, the individual may anticipate that efforts to achieve adequate proximity and comfort from the primary attachment figure are unlikely to be successful. What is likely to happen in such cases was aptly described by Bowlby (1982):

Whenever the "natural" object of attachment behavior is unavailable, the behavior can become directed towards some substitute object. Even though it is inanimate, such an object frequently appears capable of filling the role of an important, though subsidiary, attachment "figure." Like the principal attachment figure, the inanimate substitute is sought especially when a child is tired, ill, or distressed. (p. 313)

People should also be more likely to turn to God as a (substitute) attachment-like figure under such conditions. In the previous section, we noted a number of such situations, including loss of and separation from a primary attachment figure, warfare, and other extreme environmental conditions. In this section, we are concerned with the degree to which experiences with insensitive caregivers and/or attachment insecurities are associated with a habitual use of God and religion to regulate attachment-related distress.

Considerable empirical support for the compensation hypothesis has accrued. For example, sudden religious conversions, the most dramatic of religious experiences, are associated with parental insensitivity. This connection was

reported in the first study of attachment and religion (Kirkpatrick & Shaver, 1990). Since then, the findings have been supported by a meta-analysis of all studies conducted up to 2004, including almost 1,500 participants (Granqvist & Kirkpatrick, 2004). Also, in a study based on the Adult Attachment Interview (AAI; Main, Goldwyn, & Hesse, 2003), participants whose parents were estimated by an independent coder to have been relatively less loving reported more sudden and intense increases in religiousness (Granqvist, Ivarsson, Broberg, & Hagekull, 2007).

The meta-analysis also indicated that sudden converts not only outscored nonconverts in parental insensitivity but also outscored individuals who had experienced a more gradual increase in religiousness. In addition, sudden converts scored higher on a scale (the Emotionally Based Religiosity Scale; Granqvist & Hagekull, 1999) that was created to tap distress-regulating aspects of believers' perceived relations with God.

Several studies have shown that the increases in religiousness reported by individuals whose parents are low in sensitivity were precipitated by significant emotional turmoil ("themes of compensation"), which was often relationship related (e.g., Granqvist & Hagekull, 1999; Granqvist, Ivarsson, et al., 2007). These studies assessed religious changes retrospectively, but Granqvist and Hagekull (2003) showed that reports of parental insensitivity prospectively predicted increased importance of the perceived relationship with God following the breakup of a romantic relationship.

Insecure romantic attachment predicts essentially the same kinds of religious changes. For example, Kirkpatrick (1997) found that, over a 4-year period, women with anxious romantic attachments established a new relationship with God and reported religious experiences more often than securely attached women. These findings were replicated by Kirkpatrick (1998), this time over a 5-month period and in both males and females. Although the effect sizes were modest in the latter study, when a romantic relationship breakup was considered in another sample, insecure romantic attachment prospectively predicted increases in aspects of religiousness more strongly (Granqvist & Hagekull, 2003).

It seems that for people who view themselves as unworthy of human love and care (i.e., who harbor "negative" working models of self), turning to God may be viewed as feasible because of unique characteristics of God as compared to other relationship partners. In most religious belief systems, God's love is either unconditional or available through particular courses of action, which allow an otherwise "unworthy" person to "earn" God's love and forgiveness. It is even possible that a process of positive change in working models (especially in the model of self) of relatively insecure individuals might be initiated by experiencing God's love and forgiveness. Findings from the AAI-based study cited above (Granqvist, Ivarsson, et al., 2007) are in line with this speculation. Although AAI coders' estimates of parental insensitivity during interviewees' childhoods did

predict the interviewees' history of using religion to regulate distress, classifications of the interviewees' *current* attachment state of mind were generally unrelated to such compensatory uses of religion. Hence, some individuals who suffered attachment-related adversities in the past may have "earned" a certain degree of attachment security from their perceived relationship with God (cf. the idea of "reparative" effects from other relationship experiences, such as with a good therapist or a secure romantic partner; e.g., Bowlby, 1988; Main et al., 2003).

Although some of the findings cited above may suggest that individuals with insecure attachment patterns are likely to become increasingly religious over time, this would be expected theoretically primarily in the context of a need to regulate distress. Accordingly, religiousness may also decrease for such individuals (Granqvist, 2002). As expected, this seems to happen under conditions in which the need to regulate distress is comparatively low, such as after establishing a new intimate relationship (Granqvist & Hagekull, 2003).

In summary, the developmental pathway to religion in the case of parental insensitivity and insecure attachment is one marked by attachment system activation (or hyperactivation; Mikulincer & Shaver, 2007), under conditions where a perceived relationship with God helps to regulate a believer's distress, only to wane when the need to regulate distress subsides. Although this contention may be criticized for being a "deficiency approach" to religion (e.g., Noller, 1992), the perceived believer-God relation may also be functional in promoting earned security, thus setting the stage for a complementary "growth approach" to religion. Finally, and as has been noted elsewhere (e.g., Granqvist, 2003; Granqvist & Hagekull, 1999), this compensation perspective bears a strong resemblance to James's (1902) century-old characterization of the religion of the "sick soul."

The Correspondence Pathway. According to Bowlby (1973), continuity of attachment patterns across time is attributable, at least in part, to IWMs of the self and others that guide behavioral, emotional, and cognitive responses in social interactions over the life span. This continuity of working models across relationships leads to a set of predictions, which we refer to as the IWM aspect of the *correspondence hypothesis*: Individual differences in religious beliefs and experience should correspond with individual differences in IWMs and attachment orientations. Individuals who possess "secure" working models of self and others are expected to view God and other religious entities or agencies as security supporting. Likewise, an avoidant attachment orientation is expected to manifest itself in the realm of religion as agnosticism or atheism or in a view of God as remote and inaccessible. Finally, a preoccupied or anxious attachment orientation may find expression in a deeply emotional, all-consuming, and clingy, grasping relationship with God.

A socially based aspect of religion (and religious membership) has been added to the IWM aspect featured in the correspondence hypothesis (for the rationales for this addition, see Granqvist & Kirkpatrick, 2008). Besides reflecting IWM correspondence, the religious beliefs of people who are securely attached are expected, in part, to reflect their sensitive attachment figure's religious standards. In contrast, insecure offspring are expected to be less likely to adopt their relatively insensitive attachment figure's religious standards (*social correspondence*; Granqvist, 2002). Based on adding the notion of social correspondence to the idea of IWM correspondence, securely attached individuals are expected to become actively religious insofar as their parents were, and in this case their perceived relations with God are expected to exhibit the attributes of security through IWM correspondence.

In line with the social correspondence hypothesis, individuals reporting more experiences of being sensitively cared for by parents score higher on measures of religiousness, but only insofar as their parents also displayed high levels of religiosity (Granqvist, 1998, 2002; Granqvist & Hagekull, 1999; Kirkpatrick & Shaver, 1990; cf. Reinert & Edwards, 2009). In addition, such people score higher on a scale created to assess religiosity as socially rooted in the parental relationship (Granqvist, 2002; Granqvist & Hagekull, 1999). Both sets of findings were also supported in the AAI study described earlier (Granqvist, Ivarsson, et al., 2007).

Evidence for IWM correspondence has also accrued in relation to attachment history. First, the Swedish AAI study described earlier revealed that independently coded estimates of probable experiences with loving parents were associated with participants' reports of a loving, as opposed to a distant, God image (Granqvist, Ivarsson, et al., 2007). Conversely, inferred experiences with rejecting and role-reversing parents were associated positively with a distant God image and negatively with a loving image of God.

Similar findings from an Italian AAI study have recently been reported (Cassibba, Granqvist, Costantini, & Gatto, 2008). This study examined a group of Catholic priests and other religious professionals (novices, seminarists) and a comparison group of lay Catholic believers. The study is especially important theoretically not only because members of the former group are likely to experience an attachment-like relationship with God but also because this relationship (unlike in the latter group) is probably their *principal* attachment (because their lives are to be "lived in Christ," and they are required to abstain from "earthly" attachments). In further support of IWM correspondence, the group of Catholic priests and religious professionals was coded significantly higher on loving experiences with mother. Moreover, across study groups, AAI-based maternal loving scores were positively linked to a loving God image, whereas corresponding scores of parental rejection were correlated in the opposite direction.

Regarding romantic attachment, Kirkpatrick and Shaver (1992) found that people with a secure romantic attachment displayed a higher personal belief in and relationship with God as well as perceptions of God as loving, whereas people reporting avoidant romantic attachment were agnostic or atheist to a larger extent. These findings have since been replicated in a number of studies (for reviews, see Granqvist & Kirkpatrick, 2008; Kirkpatrick, 2005).

Although religious transformations are less frequent for individuals who have experienced sensitive caregiving and/or currently report secure romantic attachment, they sometimes do occur. In such cases, the life context and the constituents of the change are very different from those already reported in the compensation section of this article. For example, prospectively predicted increases in religiousness occurred for participants who reported sensitive parenting and/or secure romantic attachment *not* following romantic relationship dissolution but rather after the establishment of a new intimate relationship (Granqvist & Hagekull, 2003).

IWM correspondence in relation to current attachment organization has also been supported in the recent Italian AAI study (Cassibba et al., 2008). In that study, the group of individuals likely to experience a principal attachment to God (i.e., the Catholic priests and seminarists) had an unusually high percentage (77%) of secure or autonomous "attachment state of mind" classifications, as compared with both the matched Catholic lay group (60%) and the normative nonclinical meta-analytic distribution (58%; van IJzendoorn & Bakermans-Kranenburg, 1996). In addition, across the two study groups, Cassibba et al. (2008) found a positive association between secure or autonomous states of mind and loving-God imagery.

Besides the correlational studies just reviewed, two sets of experiments involving direct attempts to activate the attachment systems of adult participants have been conducted (Birgegard & Granqvist, 2004; Mikulincer et al., 2008; for an analogous study of children, see Granqvist, Ljungdahl, & Dickie, 2007). The main effects of attachment activation observed in these studies have already been described. However, in both sets of studies (as well as in the child study), the main effects were moderated by perceived attachment history or current attachment security in a manner that supports the idea of IWM correspondence.

Across the three experiments conducted by Birgegard and Granqvist (2004), an increase in the use of God to regulate distress was observed following subliminal separation primes among adult believers who had reported sensitive experiences with parents. Because indirect assessments of religiosity (i.e., regression residuals from pre- to postpriming) were used in the context of *subliminal* priming, participants were unaware of attachment activation. These conditions may have undermined the possibility of a "higher-order" compensatory use of religion in individuals who had experienced parental insensitivity, thus resulting in their withdrawal from

God or, put differently, their defensive shift of attention away from attachment (e.g., Main, 1991). Conversely, presumably via automatic activation of IWMs, individuals with more sensitive experiences with caregivers drew on God in this situation, or turned their attention to attachment. This distinction may also tie in with Bowlby's (1973, 1980), and later Main's (1991), proposal that a singular set of IWMs underlies secure attachment, whereas multiple IWMs underlie insecure attachment (i.e., there may be structural incoherence between implicit or automatic and explicit or controlled levels of IWM operation).

In line with these speculations, the increase in psychological accessibility of God concepts following subliminal threat primes, observed by Mikulincer and colleagues (2008), was particularly notable in participants with a secure romantic attachment orientation. In a second experiment, Mikulincer and colleagues showed that participants with a secure romantic attachment orientation implicitly reacted with more positive affect following subliminal exposure to religion-related pictures (compared to neutral pictures).

To summarize, substantial empirical support has been obtained for the idea that the developmental pathway to religion for individuals who are secure with respect to attachment runs through extensive experience with sensitive, religious caregivers and leads to the development of a security-enhancing image of a loving God. Moreover, in such cases God, like other good attachment figures (Mikulincer & Shaver, 2007), is implicitly seen as available in times of need, although secure individuals are unlikely to need to habitually use the perceived relationship with God to regulate distress. Finally, many of the attributes of this correspondence pathway were anticipated by James (1902) in his description of "healthy-minded" religion (Granqvist, 2003).

Conclusions, Conceptual Extensions, and Future Research Directions

In this article we have reviewed evidence from various sources, including recent studies, to support Kirkpatrick's (2005) idea that many aspects of religious belief and experience reflect (at least in part) the operation of attachment processes. In this concluding section, we emphasize a few issues that warrant special attention. For example, the time is ripe to examine the presumed effects of various kinds of God-related priming and the extent to which these effects are moderated by individual differences in dispositional attachment security in relation to God, parents, or romantic partners. For example, a believer whose attachment system gets activated by interpersonal losses because of war or terror-related killings and who is also primed with an authoritarian attachment-related message (e.g., "God is great" or "God strikes down in anger") might become disposed to think, feel, and act in ways normally regarded as antisocial in relation to people considered to be "evil." In contrast, another believer in a similar situation who is primed with a nurturant

attachment message (e.g., "God is love") might be more likely to react in ways normally regarded as prosocial. We are currently investigating these possibilities. However, more comparative research of this kind is needed across different cultures and religions.

The research reviewed here is mainly focused on religious samples or, when from secular communities, samples where religiosity is overrepresented by design. Therefore, future studies should examine the relevance of the religion-as-attachment model for less religious populations and should attempt to determine why secular individuals do not use God as an attachment-like figure. Does it mean that secular individuals are more securely attached and therefore in less need than more religious individuals of a symbolic attachment-like figure? Or does it mean that secular individuals are more avoidant and tend to rely on personal achievements, money, or other possessions or attributes as sources of strength and comfort?

Most of the research reviewed here focuses on aspects of religion that are particularly related to the attachment system and its associated IWMs—that is, to beliefs about certain kinds of supernatural beings and to experiences of perceived relationships with these beings. But it is possible that attachment theory and research will also prove useful in conceptualizing certain aspects of religions, such as Buddhism, in which there is no anthropomorphic god figure.

In Buddhism, a common form of compassion meditation involves vividly remembering what it feels like to have an attachment figure (often one's mother) provide one with unconditional love, and this love is then turned outward toward other people, at first only in one's imagination but eventually in behavior as well (e.g., Chödrön, 2003). This is similar to the attachment security inductions that Mikulincer and Shaver (2001) and Mikulincer et al. (2005) used to reduce out-group prejudice and foster compassion and altruism, even though these researchers did not know at the time about the centuries-old Buddhist version of the technique.

Attachment theory and research are similar to Buddhist psychology in emphasizing security (a safe haven), love, and "mindfulness." In the words of Pema Chödrön (2003), a Buddhist nun, for example,

Our mind is always seeking zones of safety. . . . We fear losing our illusion of security—that's what makes us so anxious. . . . That's the essence of samsara—the cycle of suffering that comes from continuing to seek happiness in all the wrong places. (pp. 23-24)

This is similar to attachment theorists' notion that there are various strategies for coping with threats, and some of them are more successful than others because some are rooted in actual experiences of love, support, and security.

The concept of mindfulness is another potential bridge between Buddhist psychology and attachment theory and research. Shaver, Lavy, Saron, and Mikulincer (2007) studied

a diverse group of adults who were taking part in 3-month retreats at a Buddhist meditation center. These researchers found that self-reports of attachment insecurities were associated with lower scores on Baer, Smith, Hopkins, Krietemeyer, and Toney's (2006) five-factor Mindfulness Inventory. Although the more anxiously attached retreatants were less able than their fellow meditators to maintain a nonreactive, nonjudgmental stance toward their inner experiences, the more avoidant participants were less mindful in general, including being less able to monitor their experiences and describe them in words.

At first it may seem that there is at least one big difference between attachment theory and Buddhist psychology: Attachment theory focuses on social processes as the foundation of security, whereas books in English about Buddhist meditation techniques make the process seem potentially solitary and asocial. One of the simplest and most common Buddhist prayers, however, is "I take refuge in the Buddha, the Dharma, and the Sangha," which to us (being attachment researchers) means, for a safe haven and secure base, I rely on mental representations of a loving, compassionate, and insightful teacher, the Buddha; his wise teachings (the Dharma); and the community of fellow Buddhists (Sangha).

Even if certain religious and spiritual phenomena are not rooted in the attachment system per se and thus are not captured by a narrow attachment-research net, they may still be indirectly linked to attachment. For example, via their mutual associations with dissociative inclinations, disorganized attachment is related to mystical experiences (Granqvist, 2009) and "New Age" experiences, beliefs, and activities, such as out-of-body experiences, trance states, and the belief that one can achieve personal contact with the dead (e.g., Granqvist, Fransson, & Hagekull, 2009; Granqvist, Ivarsson, et al., 2007; Main, van IJzendoorn, & Hesse, 1993). These correlations have been obtained even though many New Agers do not believe in an external metaphysical entity, God, with attachment-related attributes.

Despite many unanswered questions about nontheistic religions and the possible conceptual limits of attachment theory, Kirkpatrick's (2005) idea that attachment-related dynamics are at the core of some of the most central aspects of religion has proven very fruitful for the psychology of religion. We strongly encourage future investigations of the applicability of attachment theory to religion and its effects and to the implications of various forms of religion, religious experiences, and religious practices for attachment theory.

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Notes

1. It is important to note that other supernatural figures may fill this relationship role in addition to or instead of "God." For example, in many Christian traditions, it is Jesus with whom one maintains an active day-to-day relationship, whereas "God, the Father" remains a more distant background figure. In Catholicism, Mary typically represents the "maternal functions" of attachment figures (Wenegrat, 1989). Outside of Christianity, the worlds of believers are populated by a variety of gods and other deities, many of whom function as attachment-like figures. Even in countries dominated by Eastern religions such as Hinduism and Buddhism, which Westerners tend to think of as abstract, godless philosophies, believers often focus on the more theistic components of the belief system and on personal gods imported from ancient folk religions (for a discussion, see Kirkpatrick, 1994). Throughout this article we refer to "God" as an attachment-like figure, but it should be understood that in many cases another supernatural figure or set of figures may fill this role.
2. It is doubtful that the most realistic or fruitful approach to deciding category membership is a definition based on necessary and sufficient conditions (philosophical "essentialism"), as opposed to prototype or exemplar models of categorization. Yet for reasons of scientific convention, such criteria will nevertheless be applied in the following sections.

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