

Attachment and God Representations Among Lay Catholics, Priests, and Religious: A Matched Comparison Study Based on the Adult Attachment Interview

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Based on the idea that believers' perceived relationships with God develop from their attachment-related experiences with primary caregivers, the authors explored the quality of such experiences and their representations among individuals who differed in likelihood of experiencing a principal attachment to God. Using the Adult Attachment Interview (AAI), they compared attachment-related experiences and representations in a group of 30 Catholic priests and religious with a matched group of lay Catholics and with the worldwide normal distribution of AAI classifications. They found an overrepresentation of secure-autonomous states regarding attachment among those more likely to experience a principal attachment to God (i.e., the priests and religious) compared with the other groups and an underrepresentation of unresolved-disorganized states in the two groups of Catholics compared with the worldwide normal distribution. Key findings also included links between secure-autonomous states regarding attachment and estimated experiences with loving or nonrejecting parents on the one hand and loving God imagery on the other. These results extend the literature on religion from an attachment perspective and support the idea that generalized working models derived from attachment experiences with parents are reflected in believers' perceptions of God.

Keywords: Adult Attachment Interview, religion, Catholic, God image, internal working models

Throughout the histories of most world religions, a minority of particularly devout believers have chosen a life path that is so radical that it leaves many other individuals—whether religious or not—worrying about the path taken. From an outside perspective it is tempting to ask, for example, why one would choose a life of chastity and material modesty that is filled with heavy duties for what is a mere hope of eternal life—a decision that is in the hands of an empirically unsubstantiated, invisible agent (i.e., God)—when life outside the convent or the priesthood is a potentially rich source of earthly pleasures, including the possibility of emotionally gratifying close interpersonal relationships. From a similar perspective, then, it is equally tempting to attempt to explain the psychology of such radical life decisions. The general aim of this study was to explore specifically how attachment—representing one of the developmental domains that have been suggested to underlie core aspects of religious beliefs and behaviors (see Granqvist & Kirkpatrick, 2008; Kirkpatrick, 2005)—is represented among the radically devout. More specifically, we explored differences in attachment-related representations and experiences be-

tween a group of Catholic priests and religious on the one hand and a matched group of Catholic laypeople, as well as a group of individuals drawn from a sample of the worldwide total population, on the other. We also compared the first two groups in aspects of their God representations. Finally, we examined possible links between secular attachment representations and experiences on the one hand and aspects of the God representation on the other.

According to attachment theorists, mammals possess a genetically based attachment behavioral system that promoted the inclusive fitness of the young and relatively helpless offspring (children, in the case of humans) that were so equipped in the environment of evolutionary adaptation (Bowlby, 1969/1982). Although most children develop more than one attachment relationship in childhood, the caregiver who has spent the most time caring for the child tends to be selected out as the child's principal attachment figure—that is, the one person whom the child prefers to use above all others as a secure base for exploration and as a safe haven when alarmed (Bowlby, 1969/1982). The caregiver's sensitivity to the child's signals is in turn believed to determine the nature of the child's cognitive-affective representations (or internal working models [IWM]) of self and others (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1969/1982, 1973, 1980). Further, individual differences in such representations are believed to underlie the organization, or security versus insecurity, of attachment behaviors in small children and of linguistic processes surrounding attachment in adults. Contributing to the popularity of attachment theory in contemporary developmental and clinical psychology,

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well-validated assessment methods have been devised to study parent-related attachment organization, most notably the Strange Situation procedure in infants (Ainsworth et al., 1978) and the Adult Attachment Interview (AAI; Main, Goldwyn, & Hesse, 2003) in adults.

The idea that attachment represents one of the domains that underlie core aspects of religious beliefs and behaviors was originally suggested by Lee Kirkpatrick (1992; see also Kirkpatrick & Shaver, 1990). Kirkpatrick's application of attachment theory to religion included the proposal that even though God is invisible and believers have no concrete physical interaction history with God, their perceived relationships with the divine nevertheless sometimes meet established criteria for defining attachment relationships (Ainsworth, 1985; Bowlby, 1969/1982, 1973). Moreover, subsequent research has largely supported this proposal (for a recent comprehensive review, see Granqvist & Kirkpatrick, 2008). Thus, just as children do in relation to their "stronger and wiser" attachment figures (i.e., caregivers), some believers strive to obtain and maintain a feeling of closeness to God (e.g., in prayer), turn to God as a safe haven when distressed, view God as a secure base for exploration, and experience elevated suffering following the perception of being involuntarily separated from a previously felt communion with God. In other words, the perceived relationship with God is an important source of felt security (Sroufe & Waters, 1977) for some believers.

However, past research has failed to distinguish between believers who are more and less likely to experience full-blown attachment to God. In particular, no study has as yet examined attachment among believers who are likely to experience a principal attachment to God. We suggest that, considered as a group, Catholic priests and religious may represent an exemplar or prototype of believers who do experience a principal attachment to God. Not only is one of their vows to abstain from "earthly" marriage (i.e., from what is the principal attachment relationship for most adults; see Mikulincer & Shaver, 2006), but their daily lives are also to be "lived in Christ." Among nuns, it is even common to conceive of Christ as one's bridegroom. Also, the day of a priest or member of a religious order should contain considerable time spent in prayer and contemplation of God. In short, the life of priests and religious seems designed to foster a principal attachment to God. In contrast, even though lay religiosity is also represented by religious beliefs and behaviors that encompass some attachment elements, the lives of lay individuals, like those of most individuals drawn from the more secular population, typically contain principal attachment relationships in the secular domain (i.e., adult pair bonds). Therefore, we argue that a distinction between groups of priests and religious, lay believers, and individuals drawn from a sample from the worldwide total population may serve as a proxy for those who are relatively more (the priests and religious) and less (the other groups) likely to experience a principal attachment to God.

Besides the normative religion-as-attachment model sketched above, Kirkpatrick (e.g., 1992) suggested that the security-insecurity of people's primary secular attachment relationships will have important implications for their religious development, especially for their perceived relationships with God. Subsequent research has supported this conjecture and helped to delineate two attachment-related developmental pathways to religion and modes of being religious (see Granqvist & Kirkpatrick, 2008; Kirkpatrick, 2005). One of these paths is via regulation of distress following

experiences with insensitive caregivers and insecure attachment (the compensation pathway). Individuals with such experiences tend to have a relationship with God that waxes and wanes over time, depending on the current need to regulate distress. For example, among such individuals, sudden religious conversions have been found to be both overrepresented (Granqvist & Kirkpatrick, 2004) and embedded in life situations of emotional turmoil (e.g., Granqvist & Hagekull, 1999; Granqvist, Ivarsson, Broberg, & Hagekull, 2007). In contrast, religiousness decreases for such individuals under conditions where the need to regulate distress through attachment surrogates is comparatively low, such as after establishing a new intimate human relationship (Granqvist & Hagekull, 2003).

Whereas estimates of parental insensitivity and an insecure attachment history with parents have been found to consistently and robustly predict religion-as-compensation, the predictive capacity of current insecure attachment organization has been found to be much more limited (Granqvist, 2002; Granqvist, Ivarsson, et al., 2007). One interpretation (see Granqvist, Ivarsson, et al., 2007; Granqvist & Kirkpatrick, 2008) is that this discrepancy may indicate that religion-as-compensation has helped some previously insecure individuals derive some degree of "earned" attachment security (Main et al., 2003). Thus, even though the compensation hypothesis may seem to represent a deficiency approach to religion (see Noller, 1992), religious development is a dynamic process that may well wind up promoting mental integration and hence growth.

The other attachment-related pathway to religion is via experiences with sensitive, religious caregivers (correspondence pathway; Granqvist, Ivarsson, et al., 2007; Kirkpatrick, 2005). On the basis of the correspondence hypothesis, securely attached individuals are expected to become actively religious insofar as their parents were (social correspondence); in this case their perceived relations with God are expected to exhibit the attributes of security through the operation of generalizing working models of self, parents, and God (IWM correspondence). Both aspects of the correspondence hypothesis have received considerable empirical support (see Granqvist & Kirkpatrick, 2008). For example, IWM correspondence has been supported by findings that link estimated experiences with sensitive caregivers and secure attachment on the one hand to a stable and loving God image on the other (Granqvist, Ivarsson, et al., 2007; Kirkpatrick, 1998; Kirkpatrick & Shaver, 1992). Similarly, secure romantic attachment has been linked to a sense of secure attachment to God, where God is essentially viewed as a warm, reliable, and sensitive caregiver (Kirkpatrick & Shaver, 1992). Finally, results from quasi-experimental studies that have used priming and semiprojective methodologies suggest that secure individuals' perceptions of God are functional even—and perhaps above all—at automatic or unconscious levels of operation (Birgegard & Granqvist, 2004; Granqvist, Ljungdahl, & Dickie, 2007; Mikulincer, Gurwitz, & Shaver, 2007).

Although the attachment framework is rapidly emerging as an important research program that has increased psychologists' understanding of some central aspects of religion, there are notable limitations in the extant body of research. First, there are few studies (we are aware of only two) that have used developmentally validated attachment assessments: One is an AAI-based study of adults (Granqvist, Ivarsson, et al., 2007), and the other a child study using the Separation Anxiety Test (Granqvist, Ljungdahl, &

Dickie, 2007). All other studies have used self-report measures of individual differences in attachment that, although conceptually based on the idea of continuity in IWMs, have yet to be empirically anchored in behavioral observations of attachment security and parental sensitivity (e.g., Belsky, 2002). Clearly, then, there is a need for more studies using developmentally validated attachment procedures.

Second, the idea that there are two attachment-related developmental pathways to religion, and to religious attachments in particular, may be subdivided into two independent questions, which have often been conflated in previous research (e.g., Granqvist, 1998; Granqvist & Hagekull, 2003; Kirkpatrick, 1997, 1998). The first concerns attachment to God in a normative sense: Do full-blown (including principal) attachments to God typically stem from secure or insecure experiences and representations in the secular attachment domain (i.e., regardless of the security–insecurity of attachment to God)? The second question concerns attachment to God in an individual difference sense: Does the quality of believers' perceived attachments to God parallel the quality of their secular attachment-related experiences and representations? Further, the distinction between attachment to God in the separate senses of normative processes and individual differences needs to be carried out in subsequent analyses as well.

Finally, all published studies on attachment and religion have used samples that are diverse with regard to denominational characteristics, and most of these studies have also been based on samples of convenience. Consequently, the populations to which the statistical inferences apply are unclear from the research hitherto undertaken; hence, studies using samples based on more well-defined religious populations are imperative.

To extend and improve the extant body of attachment and religion research, the present study used a developmentally validated attachment method (i.e., the AAI; see Hesse, 2008) and included not only a well-defined group of Catholic priests and religious but also a matched group of lay Catholics. The design of the study was hence well suited to explore our primary research question of whether individuals in a certain faith tradition who are likely to experience a principal attachment to God (i.e., the Catholic priests and religious)—as compared to individuals who are comparatively less likely to experience a principal attachment to God (i.e., lay Catholics and individuals drawn from a worldwide normal sample)—were overrepresented in secular attachment security or insecurity and associated attachment-related experiences. This “attachment normative” research question was posed as an exploratory question, as opposing theoretical possibilities have been outlined. In other words, intense religious devotion (i.e., principal attachments to God) might be set in motion by a history of insecure attachment in the secular attachment domain, where the individual's perceived relationship with God comes to serve a surrogate attachment function that assists in regulating distress. However, it is also possible that the religiosity of priests and religious stems from a history of secure attachment in which the individual's perceived relationship with God signals an extension of his or her prior secure relationships. Second, we explored differences in the God representations of the priests and religious and the lay group, using measures of quality of attachment to God and dimensions of God imagery (i.e., God as loving, distant, and controlling). Finally, as predicted from the IWM aspect of the correspondence hypothesis, we tested whether secure secular at-

tachment representations and/or associated experiences with loving parents were uniquely (i.e., over and above any effect of the contrast between the priests and religious vs. the lay group) linked with secure attachment to God and loving God imagery. Conversely, we tested whether insecure “earthly” attachment representations and/or associated experiences from rejecting and/or role-reversing parenting were uniquely linked with insecure attachment to God and controlling and distant God imagery.

Method

Participants and Procedure

The sample consisted of 60 participants drawn from a town in the south of Italy. The mean age of the sample was 27.55 years ($SD = 3.07$, range = 20–37). The sample contained two different groups matched on sex: a group of Catholic priests and religious ($n = 30$; 15 women; M age = 27.20, $SD = 3.75$; range = 20–37) and a group of lay Catholics ($n = 30$; 15 women; M age = 27.90, $SD = 2.20$; range = 23–33). The groups did not differ on age according to a t test.

The group of priests and religious consisted of 30 individuals (5 nuns, 10 novices, 5 priests, and 10 seminarians) recruited out of 56 people who met the criteria for inclusion. The 30 participants were the first who agreed to participate among those who met the inclusion criteria. The lay group consisted of 30 parishioners who attended church at least once a week and who were members of a Catholic association. All contacted people agreed to participate. Eligible for inclusion were individuals age 20 to 37 who were fluent Italian speakers and highly educated (at least 13 years).

Participants were informed that the study was about their “relationship to God and to [their] own parents.” No further information about the purpose of the study was provided. At recruitment, the confidentiality of participation was explained. Participants in the group of priests and religious were contacted personally at their convent or at the seminary after obtaining authorization from the bishop. Individuals in the lay group were contacted personally at the church, and interview appointments were scheduled. After the AAI interview had been administered (see below), participants were asked to fill out a questionnaire.

Attachment interviews were individually administered at the church, convent, or seminary by a trained graduate student (who did not subsequently code the interviews). Each interview was tape recorded, and verbatim transcriptions were made by a graduate student, after which transcription accuracy was checked and faults corrected by Rosalinda Cassibba. All interviews were coded by Alessandro Costantini, who was blind to all other data. The coder was trained in Rome by Nino Dazzi and Deborah Jacobivitz and achieved full AAI reliability across 30 consecutive transcripts with Mary Main and Erik Hesse at the University of California, Berkeley. Fifteen randomly selected interviews were also coded by Sergio Gatto, who is also a certified AAI coder.

Instruments and Measures

The measures consisted of the semistructured interview (the AAI) and the questionnaire, the latter containing the God representation instruments. The following variables were used.

The Adult Attachment Interview (George, Kaplan, & Main, 1996). The AAI is a semistructured interview that consists of approximately 20 questions designed to reveal the individual's

IWMs of attachment. The interview normally varies in length between 45 and 90 min and is administered in a relaxed, conversational style. The most important questions ask the participant to freely describe childhood relationships with parents; to select adjectives to describe those relationships, subsequently to be supported by the recall of specific episodes; to describe what he or she did as a child when emotionally upset, ill, and in pain, as well as what parents did in those circumstances; to recall feelings associated with physical separation from parents; to elaborate on experiences of rejection and fear; and to speculate on the effect of childhood experiences with parents on current personality. Another set of questions concerns loss through death and experiences of abuse.

AAI rating scales and classifications. The AAI was coded according to the Main et al. (2003) scoring and classification system. The transcripts are coded on three types of 9-point scales: (a) Probable Experiences, (b) Organized states of mind with regard to attachment, and (c) Unresolved–Disorganized loss or abuse. Individuals are then finally classified into one of four categories on the basis of their state of mind and unresolved–disorganized scores.

The coder, not the participant, assigns the Probable Experiences ratings. In so doing, the coder does not simply rely on the content of participant responses, but also relies on an evaluation of the coherence of content during the interview, including discrepancies between semantic and episodic memories. Hence, a participant who claims to have had only very loving experiences with his or her mother will not receive a high mother Loving score unless this general portrayal is supported by the recounting of specific corresponding memories. All of the Probable Experience scales were used in coding the interviews. For the economy of analyses and presentation, the theoretically most important experiential anchors for the different state of mind groups (Main et al., 2003) were used in subsequent analyses (see also Granqvist, Ivarsson, et al., 2007), namely Loving, Rejecting, and Role-Reversing with regard to both parents separately (range of intercoder $r_s = .47$ to $.94$). A high score on the Loving scale is assigned when a parent is thought to have served as a reliable secure base for the child; high Rejection is scored when a parent is thought to have frequently or severely turned down the child's bids for attachment; and high Role-Reversing is assigned when a parent is thought to have used the child for his or her own sense of protection or security.

All of the Organized state of mind scales were used. Participants assigned a *dismissing* (Ds) state of mind classification are characterized by a high score on idealization, insistence on lack of memory, and/or derogation of attachment. Idealization refers to a structural inconsistency between positive or generalized portrayals of parents and the failure to support these portrayals in the recounting of specific episodes, insistence on lack of memory refers to frequent claims of not remembering childhood events and/or relationships, and derogation refers to a brief, contemptuous dismissal of attachment figures and/or experiences. In addition, transcripts of dismissing participants typically convey an emphasis on personal strength and invulnerability. When negative experiences are recounted, these are not thought to have had negative influences on the person's development; indeed, the person may claim that they have strengthened him or her.

Individuals assigned a *preoccupied* (E) state of mind are characterized by a high score on involving anger or passivity of

thought processes in relation to attachment. Involving anger refers to responses that indicate an ongoing, mentally preoccupying anger against the attachment figure (e.g., directly addressing the parent in an angry context as if he or she were present), and passivity refers to vagueness of mental processes concerning attachment as identified during the interview (e.g., self–parent misidentifications, childlike speech). In addition, preoccupied speakers often present an image of authoritativeness surrounding psychological issues in general, conveyed in overused phrases and clinical jargon that often serve to denigrate attachment figures in the interview.

Interviewees with a high score on overall coherence of transcript are assigned an *autonomous* (F) state of mind. Coherence of transcript refers to the extent to which the participant is collaborative and the transcript provides a credible, internally consistent, and free-flowing picture of the participant's experiences, feelings, and viewpoints regarding attachment. A high coherence score thus necessitates relatively low scores on the above state of mind scales. In addition, autonomous participants show signs of valuing attachment figures and events and typically admit to vulnerable feelings (e.g., surrounding separation from parents). Autonomous speakers provide coherent attachment discourse regardless of whether their past experiences with parents were primarily positive or negative. In the case of childhood adversities, high coherence often coincides with an implicit attempt to understand and/or forgive parental misdeeds.

Interviewees who are assigned an *unresolved–disorganized* (U) state of mind classification have high scores on a scale tapping unresolved–disorganized speech specifically surrounding loss and/or abuse experiences. A high scale score refers to discourse characterized by one or more of three subtypes of unresolved–disorganized speech. The first consists of striking lapses in the monitoring of reasoning, as is implied in the belief that a dead person remains alive in the physical sense or in considerable spatial–temporal confusion surrounding the loss event. The second consists of striking lapses in the monitoring of discourse, as when visual or sensory images related to the trauma intrude in discourse. The third consists of extreme and lingering behavioral reactions to the traumatic event and reports of redirection of distress following the trauma. The highest score assigned to any given loss and abuse incident is used as the overall unresolved–disorganized score. As speakers assigned to the U category lapse in discourse specifically surrounding loss and/or abuse (i.e., the category does not refer to a general state of mind regarding attachment), the U category is superimposed on the other three categories (e.g., U/F, U/Ds).

The reliability of the AAI state of mind classification system is well established, as is its convergent and discriminant validity (see Hesse, 2008, for a review). Also, independent estimates of probable parental behaviors in participants' childhoods, as derived in the AAI system, have been found related to their infant classifications (Main, Hesse, & Kaplan, 2005). In the present study, the interrater reliability across 15 cases was 88% for the three organized categories (Cohen's $\kappa = .79$, $p < .001$). The percentage agreement for U versus not-U was 100% (κ could not be computed here because none of the coders assigned a U classification to any of the reliability cases). The interobserver r for the overall coherence of transcript scale was $.83$, $p < .001$.

Using discriminant function analysis, we also derived a continuous overall attachment security score (i.e., a discriminant function) from a variate formed largely by coherence of transcript but also by idealization, involving anger, and derogation of attachment scores (see Main et al., 2003, for details of the coding system). This variate separates participants with autonomous and nonautonomous state of mind classifications (see Waters, Treboux, & Crowell, in press).

God representation measures. First, Kirkpatrick and Shaver's (1992) three brief forced-choice attachment-to-God paragraphs were used to classify participants into secure (God is viewed as warm and responsive to the self), avoidant (God is viewed as distant and inaccessible to the self), or ambivalent (God is viewed as inconsistently responsive to the self) attachment-to-God groups. Although the reliability of this instrument—to the best of our knowledge—is unknown, its validity is suggested by findings showing an anticipated relation with self-reported romantic attachment (e.g., secure–secure match; Kirkpatrick & Shaver, 1992) and religious coping (e.g., individuals with a secure attachment to God report more positive religious coping; Belavich & Pargament, 2002).

Second, God image was assessed with three multi-item measures adapted from Benson and Spilka (1973). Participants rated 12 adjectives on a scale ranging from 1 to 9, in terms of how well each adjective described their perceptions of God. Following Benson and Spilka's indications, 5 items (*forgiving, loving, caring, comforting, accepting*) were averaged to create a Loving God scale, and 3 items (*wrathful, restricting, controlling*) were averaged to create a Controlling God scale. In addition, the Distant God scale was created from 4 items (*responsive* [reverse scored], *distant, unavailable, impersonal*), following Kirkpatrick and Shaver's (1992) adaptation of the Benson–Spilka scales. These scales have been shown to possess adequate internal consistency and test–retest reliability (Kirkpatrick, 1998); to be predictably related to self-report attachment measures (Kirkpatrick, 1998; Kirkpatrick & Shaver, 1992) and to AAI-based probable experience ratings (Granqvist, Ivarsson, et al., 2007); and to display additional aspects of satisfactory construct validity (Benson & Spilka, 1973; Spilka, Hood, Hunsberger, & Gorsuch, 2003). The internal consistencies were also high for the Loving ($\alpha = .89$) and Distant ($\alpha = .85$) scales in the present study, but not for the Controlling scale ($\alpha = .50$).

Results

The Priests and Religious Versus Comparison Groups on AAI State of Mind and Probable Experiences

To analyze whether status as Catholic priests and religious (i.e., the proxy for a principal attachment to God) was associated with an overrepresentation of any particular state-of-mind classification, we performed a total of eight 2×2 chi-square tests comparing the distribution of the Catholic priests and religious group with the distribution of the matched lay Catholic group as well as with the worldwide normal sample presented by van IJzendoorn and Bakermans-Kranenburg (1996). The classification distribution for each group is presented in Table 1. To maximize statistical power, which was judged to be important in view of the inherently low power of chi-square tests with fairly small groups, we explored differences between the priests and religious group and each of the two comparison groups on F versus non-F, Ds versus non-Ds, E versus non-E, and U versus non-U classification distributions. To avoid redundancy for the U versus non-U comparison, we based the first three analyses on the three-way distributions (i.e., F, Ds, and E, without superimposing U).

All comparisons between the priests and religious group and the lay group were nonsignificant, χ^2 s(1, $N = 60$) < 1.94, $ps > .10$. However, there were notable descriptive differences between the groups in that almost four out of five participants in the priests and religious group compared to three out of five participants in the lay group were judged secure (odds ratio = 2.19), whereas only half as many in the priests and religious group compared to the lay group were judged dismissing (odds ratio = 0.42). To increase the statistical power and precision of this analysis, differences between the priests and religious and lay groups were also tested using the continuous attachment security score as the dependent variable. A t test showed a significant difference, $t(58) = 2.18$, $p < .03$. The priests and religious group had a higher security mean ($M = 1.15$, $SD = 1.17$) than the lay group ($M = .43$, $SD = 1.37$) at a medium effect size level ($d = 0.56$).

In general, the classification distribution in the lay group was much more similar to the worldwide normal distribution than that of the priests and religious group (see Table 1). Consequently, drawing on the higher statistical power resulting from the larger sample size of the worldwide population data, the priests and religious group had a significantly higher proportion of secure

Table 1
Distribution of the Three-Way and Unresolved–Disorganized Adult Attachment Interview (AAI) Classifications for Catholic Priests and Religious (N = 30), Matched Lay Catholics (N = 30), and Worldwide Normal Distribution (N = 584)

Sample	Three-way AAI distribution			U vs. not-U distribution	
	F	Ds	E	U	Not-U
Catholic priests and religious	23 (77%)	4 (13%)	3 (10%)	2 (7%)	28 (93%)
Lay Catholics	18 (60%)	8 (27%)	4 (13%)	1 (3%)	29 (97%)
Worldwide normal sample ^a	338 (58%)	139 (24%)	107 (18%)	94 (19%)	490 (81%)

Note. F = secure–autonomous; Ds = dismissing; E = preoccupied; U = unresolved–disorganized.

^a This sample represents the nonclinical group reported in van IJzendoorn and Bakermans-Kranenburg's (1996) meta-analysis.

classifications, $\chi^2(1, N = 614) = 4.16, p < .05$, odds ratio = 2.40, although results for the dismissing and preoccupied attachment comparisons were nonsignificant, $\chi^2s(1, N = 614) < 1.76, ps > .10$. Finally, the priests and religious group had a marginally lower proportion of unresolved–disorganized classifications than the worldwide normal sample, $\chi^2(1, N = 614) = 2.98, p = .08$, odds ratio = 0.37.

In addition, a series of *t* tests was performed to test differences between the priests and religious and lay groups on the Probable Experience scales with regard to both parents (no Probable Experience scale norm data are available for the worldwide normal distribution). Results showed a significant difference only on the maternal Loving scale, $t(58) = 2.72, p < .01$. The priests and religious group was estimated as higher in maternal Loving ($M = 5.10, SD = 1.77$) than the lay group ($M = 3.78, SD = 1.91$) at a medium to large effect size level, $d = 0.72$. These means indicate that, on average, the mothers of the participants in the priests and religious group were “good enough” to foster secure attachment (Loving score ≥ 5 ; Main et al., 2003, p. 15), whereas the mothers of the lay participants were, again on average, somewhat less than good enough.

The Priests and Religious Versus Lay Group on God Representation

Regarding the second research question, the attachment-to-God classification distributions of the priests and religious and lay groups were first compared using a chi-square analysis. This analysis yielded a significant result, $\chi^2(2, N = 60) = 5.98, p < .05$. In the priests and religious group, almost three out of four respondents (73%) were classified as secure; in contrast, less than half of the lay participants (43%) reported a secure attachment to God (odds ratio = 3.60). The groups differed notably also with respect to ambivalent classification, with the priests and religious (27%) reporting a considerably lower percentage than the lay participants (53%; odds ratio = 0.32).

Second, we compared the priests and religious group with the lay group on the God image dimensions, using *t* tests (see Table 2). Statistically significant differences were observed on each of the three scales. Specifically, the priests and religious group had higher scores on Loving God but lower scores on Distant God and Controlling God than the lay group. These differences were of large and medium effect sizes.

AAI State of Mind and Probable Experiences in Relation to God Representation

Because of the low number of participants assigned an unresolved–disorganized classification in the two study groups, we used the three-way AAI classifications in testing the third set of research questions.

Attachment to God. First, the AAI state of mind classification groups were compared on attachment-to-God classifications, using a chi-square analysis. Results from this analysis showed no significant association between the two, $\chi^2(4, N = 60) = 4.26, ns$ (see Table 3). Also descriptively, the correspondence between AAI and attachment-to-God classifications was not strong (48% considering the three-way classifications). This was true as well when considering a secure–insecure split (57% correspondence), which

was also nonsignificant according to a chi-square test, $\chi^2(1, N = 60) = 0.37, ns$. Finally, using a *t* test, we examined whether the secure and insecure attachment-to-God groups differed on the continuous AAI security dimension. Results showed no significant difference between the groups, $t(58) = 1.38, ns$.¹

In a second set of analyses, we compared the attachment-to-God classification groups on probable experiences (i.e., Loving, Rejecting, and Role-Reversing with regard to each parent). As only one participant was classified as avoidant, we used a collapsed insecure group in these analyses. Results showed significant differences between the two groups (secure vs. insecure to God) only on Role-Reversal for father, $t(58) = 2.15, p < .05$. Although both groups had very low means on paternal Role-Reversal, somewhat surprisingly, the secure group had higher paternal Role-Reversal scores ($M = 1.25, SD = 0.67$) than the insecure group ($M = 1, SD = 0$) at a medium effect size level, $d = .53$. To examine whether there was a unique link between paternal Role-Reversal and attachment to God, we also performed an analysis of covariance with the priests and religious versus lay group contrast as the covariate. The difference between the two groups remained statistically significant after controlling for the covariate, $F(2, 57) = 4.29, p < .05$.

God imagery. We compared the three-way AAI state of mind groups on the God image dimensions, using three analyses of variance. There were no significant differences between the groups on Loving God, $F(3, 56) = 2.59, ns$; Controlling God, $F(3, 56) = 1.08, ns$; or Distant God, $F(3, 56) = 0.63, ns$.

In addition, we computed Pearson correlation coefficients between the AAI continuous security score and the three God image dimensions. Only the correlation between the security score and the Loving God Scale was statistically significant, $r(58) = .37, p < .01$. This relation also remained significant after statistically controlling for the priests and religious versus lay group contrast, partial $r(57) = .30, p < .05$.

Finally, a series of Pearson correlations was run to test whether God images were related to the probable experiences scores. These correlations are presented in Table 4. Results showed significant (or marginally significant) associations between Loving God on the one hand and Loving mother, Rejecting mother, and Rejecting father on the other. Also, Controlling God was related to Loving mother. All of these relations were in the predicted direction; that is, estimated experiences from loving parenting were linked to a more loving and less controlling God image, whereas estimated experiences from Rejecting caregivers were linked to a less loving God image. No significant associations were found between Distant God and probable experiences, nor was parental Role-Reversal significantly associated with any of the God image scales.

¹ It could be argued that stronger concordance between secular and religious attachment representations should be present among study participants selected out for their high likelihood of experiencing a principal attachment to God (i.e., priests and religious) than among participants less likely to experience such an attachment to God (i.e., lay participants). Therefore, follow-up analyses were run both within and between the two study groups, in the latter case to test differential concordances between the groups. Although none of these analyses yielded significant results, the concordance between the three-way classifications was descriptively stronger among priests and religious than among lay participants (56% vs. 40%).

Table 2
Means, Standard Deviations, Effect Sizes, and Results From *t* Tests Comparing the Priests and Religious and Lay Groups on God Imagery (*N* = 60)

God image	Priests and religious		Lay group		<i>t</i> value	<i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>		
Loving	44.57	1.19	40.90	6.34	3.11**	.81
Distant	5.77	3.43	9.20	6.96	-2.42*	-.62
Controlling	6.47	3.62	10.73	5.14	-3.71***	-.96

* $p < .05$. ** $p < .01$. *** $p < .001$, two-tailed.

Following statistical control of the priests and religious versus lay group contrast, the fully significant results remained significant; that is, Loving God was still inversely related to Rejecting mother (partial $r = -.30$, $p < .05$) and Rejecting father (partial $r = -.34$, $p < .05$). However, the marginally significant relations between Loving mother on the one hand and Loving and Controlling God on the other were lost to nonsignificance.

Discussion

The present study is the first attachment and religion study of which we are aware that is based both on a developmentally validated attachment assessment method (i.e., the AAI) and a well-defined religious population. Also, unlike most previous attachment and religion studies, by using a sample of priests and religious we were able to study attachment among individuals likely to experience a principal attachment to God. The present study thus extends and helps to improve the emerging body of attachment and religion research in an important way.

Although the statistical power was modest and many analyses failed to reach statistical significance, on the whole the positive results that were obtained were largely coherent. There were three sets of key findings. First, we found a significantly higher proportion of secure classifications and a trend to a significantly lower proportion ($p < .10$) of unresolved-disorganized classifications among participants selected for their high likelihood of experiencing a principal attachment to God (i.e., the priests and religious), compared with the worldwide normal distribution. Also, even if the proportions of secure versus insecure classifications did not differ significantly between the priests and religious and lay groups, the priests and religious participants had—on average—higher continuous state-of-mind security scores than the lay group

participants. Moreover, the fact that the participants who were priests and religious were independently estimated to have had mothers who, on average, were estimated to be at least “good enough” suggests that most of these participants were not “earned secure” (Main et al., 2003), nor do they seem to have used religion as a mode of compensation for inadequacies in their primary childhood attachment relationships. This interpretation was further strengthened by the finding that mothers of the priests and religious participants were estimated as more loving than mothers of the lay participants. In sum, although the particular kind of religiosity of the priests and religious studied here represents a radically nonconventional life path that encompasses the selection of God (instead of another adult human) as the principal adult attachment figure, our findings indicate that at the group level, such a life path is associated with secure attachment-related experiences and representations in the secular domain.

Having said this, it should be noted that lay religiosity may not necessarily represent religion as compensation for current insecure attachment, either. Indeed, the distribution of secure versus insecure AAI classifications in the lay group was very similar to that of the worldwide normal sample (see Table 1). If anything, lay religiosity—just like the religiosity of priests and religious—was related to a comparative absence of the most serious form of insecure attachment (i.e., unresolved-disorganized attachment status)², a topic that we will return to in more detail later. Yet, the mean maternal Loving score suggests that, on average, the mothers of the lay participants were somewhat less than “good enough.” Similar to results from a previous AAI and religion study (Granqvist, Ivarsson, et al., 2007), these group-level findings (i.e., a normative proportion of secure classifications coupled with “not good enough” maternal Loving scores) suggest the possibility that some religious individuals may have achieved at least some degree of earned security, possibly by drawing on their perceptions of God as a reparative attachment surrogate.

Secondly, a higher proportion of participants in the priests and religious group reported a secure attachment to God than in the lay group. Similarly, God was perceived as more loving by the priests

Table 3
Correspondence Between Three-Way Adult Attachment Interview (AAI) and Attachment to God Classifications Across the Priests and Religious and Lay Groups (*N* = 60)

AAI	Attachment to God		
	Avoidant	Secure	Ambivalent
Ds	1 (2%)	6 (10%)	5 (8%)
F	0 (0%)	25 (42%)	16 (27%)
E	0 (0%)	4 (7%)	3 (5%)

Note. Ds = dismissing; F = secure-autonomous; E = preoccupied.

² Although our research questions did not entail comparisons between the lay group and the sample from the worldwide total population, for purposes of the subsequent discussion we tested whether the proportion of U assignments differed between these groups. At a marginally significant level, $\chi^2(1, N = 614) = 3.55$, $p = .06$, a lower proportion of lay participants than individuals from the worldwide normal sample were indeed assigned a U classification (odds ratio = 0.18).

Table 4
Pearson Product–Moment Correlations Between Probable Experiences and God Image Scales (N = 60)

Probable experiences scale	God image scales		
	Loving God	Controlling God	Distant God
Loving mother	.25 [†]	-.24 [†]	-.05
Loving father	.11	-.11	-.11
Rejecting mother	-.31 [*]	.10	-.14
Rejecting father	-.36 ^{**}	.05	-.23
Role-reversing mother	.14	-.19	-.05
Role-reversing father	.09	.04	-.05

[†] $p < .10$. * $p < .05$. ** $p < .01$, two-tailed.

and religious. Conversely, a higher proportion—in fact a surprisingly high proportion of more than 50%—of lay group participants reported an insecure–ambivalent attachment to God. God was also viewed as comparatively more controlling and distant by lay participants than by the priests and religious. Although these results should be interpreted with caution (see below), they suggest not only that, at the group level and as compared with lay religiosity, the religiosity of priests and religious is associated with security-related mental representations in the secular domain, but also that such representations are generalized to the religious domain and are reflected more specifically in devout believers' perceptions of God as a loving and sensitive relational partner.

Finally, and in direct support of the IWM aspect of the correspondence hypothesis, the continuous AAI state-of-mind security scores were positively related to perceptions of God as loving. This novel finding—showing a link between an important aspect of God imagery and current state of mind with regard to attachment—extends the present body of attachment and religion findings. Conversely, and replicating previous AAI-based findings (Granqvist, Ivarsson, et al., 2007), estimated experiences from rejecting caregivers were linked to perceptions of God as unloving. It is important that these findings were independent of the priests and religious versus lay group contrast. However, the categorical attachment-to-God and AAI state-of-mind classifications failed to display predicted relations. In fact, and contrary to expectations based on attachment theory, participants who reported a secure attachment to God were estimated to have experienced more role-reversing parenting.

Some findings of this study deserve a more detailed discussion. The fact that most of the priests and religious who were included in this study appear to be continuously secure (Main et al., 2003; Pearson, Cohn, Cowan, & Cowan, 1994) is likely to seem somewhat counterintuitive to many readers (especially in psychology, which is one of the academic disciplines most biased against religion; Bergin & Jensen, 1990). After all, the priests and religious of this study have withdrawn to a secluded life in the convent or the Church, where they abstain from reproduction and from becoming primary caregivers to children. They are presumably the end of the family line, and their secure working models thus fail to transmit to the next generation. Therefore, it is tempting to ask whether they are truly secure or have just learned—from practice, reflection, and religious ideals (e.g., forgiveness, the importance of

reconciliation)—to imitate the attributes of security, which might make them pseudosecure. Although the latter possibility cannot entirely be ruled out, we think it is unlikely, for several reasons.

First, the AAI coding system is designed to capture many forms of incoherencies that result from individuals feigning security. For example, an overwhelming majority of psychopaths, who are notorious for their skills at cheating and manipulating, are judged seriously insecure in the AAI system (e.g., Frodi, Dernevik, Sepa, Philipson, & Bragesjo, 2001). Second, although psychologists might prefer to turn a blind eye to this fact, in every human culture and historical period studied to date, many well-adapted individuals have embraced philosophies of life where deities of varying sorts hold a central position (e.g., Kirkpatrick, 2005). It is notable, however, that when securely attached individuals do so, some anthropomorphic features in general and benevolent features (e.g., loving, caring) in particular seem to be attributed to the transcendent, which makes the transcendent reminiscent of the secure individuals' primary attachment figures. Finally, it should be noted that although the priests and religious in this study abstain from some intimate relationships, they do form close relationships with imagined figures such as the Virgin Mary (the perfect mother) and Christ (the perfect bridegroom). The lesson here may be that even though spousal relationships are the principal attachment relationships for most adults (e.g., Bowlby, 1980; Mikulincer & Shaver, 2006) and thus represent the normative scenario, the adult human mind has an enormous degree of flexibility and capacity for imagination (e.g., the attribution of a mind to nonobservable entities) that may make some of the most well-nurtured individuals shun away from the normative scenario as overly restricted.

However, it should be noted that it has no doubt taken a lot of training and determination to become the sort of priest or religious that was included in the present study. Religion needs to be fully integrated in the individual's life and cannot wax and wane with the person's current needs to regulate distress. Yet, even though most of the priests and religious included in the present study were secure, not all of them were; roughly 25% were insecure either on the AAI or in attachment to God. Also, one might very well encounter a higher proportion of insecure individuals who—at any given point in time, and especially when faced with distress—aspire to be pious. We speculate that that may be the case, for example, for Catholic clergy found guilty on charges of child abuse, for those individuals who let themselves be recruited to acts of religious violence, and more generally for individuals whose God representations are the opposite of a loving and caring God (e.g., God as a wrathful, punitive, and vengeful ally against people of a different faith). Thus, finding whether a principal attachment to God develops in the wake of secure or insecure secular attachment should to a large extent depend on what kind of intensely religious sample is studied. Naturally, this also implies that the present findings cannot be generalized a priori to other intensely religious groups, let alone to religion in general. It will be an important task for future research to examine the attachment representations of individuals in other kinds of intensely religious populations.

Another important issue to address is why religiosity in both laypeople and priests and religious was associated with the assignment of a low proportion of participants to the unresolved–disorganized (U) AAI category (see Table 1). Although some undercoding of U cannot be entirely ruled out, it is notable that

there was total agreement on U status between two blind, certified coders. Also, in the only other AAI-based study of which we are aware that has included predominantly religious people (Granqvist, Ivarsson, et al., 2007), the proportion of U was similarly somewhat lower than in the worldwide normal sample.³ We speculate that organized forms of religion may help to promote successful mental resolution of trauma. One avenue through which this may occur is through successful “terror management” (e.g., Solomon, Greenberg, & Pyszczynski, 2004). That is, in view of everybody’s (including the self’s) impending mortality, religion is likely to give hope for continued existence in a metaphysical-symbolic sense, which (though this is often overlooked in the terror management literature) also implies a prospect of reunion with deceased loved ones. The absence of firmly integrated religious beliefs may offer less protection in this regard. In other words, nonreligious individuals’ recognition that death is the ultimate end of both others and the self may be disorganizing when they are faced with traumatic loss. This may be especially likely under certain conditions, such as when there are no other attachment-like figures (e.g., God) available to serve as a surrogate and when the individual is relying on a fragile, conditional strategy (i.e., insecure attachment; Main, 1991) to deal with attachment-related stress.

The present study’s failure to find predicted relations between secular attachment and attachment to God contrasts with positive findings from many previous studies (see Granqvist & Kirkpatrick, 2008, for a review). It is notable, though, that the previous studies employed self-report measures of both secular attachment and attachment to God, implying that the associations detected may partly have reflected shared method variance or some self-report response bias. In contrast, the present study had a crossover measurement design—that is, self-reports were used to assess attachment to God, but a more indirect method (i.e., the AAI) requiring independent coherency-based coding was used to assess secular attachment. Although this is a strength in terms of avoiding the pitfalls of the previous studies, it may be that the present study’s null findings are explained by the differential mode of measurement (see below).

Before concluding, we note that the present study had some additional methodological limitations that should be borne in mind and should be remedied in future research. First, the cross-sectional design of the study prevents any inferences regarding causal direction between the studied variables. However, results from two sets of studies deem it unlikely that the results are a design artifact or that the causal direction should really be the reverse. First, previous prospective studies have shown that attachment predicts real-time religious change (Brown, Nesse, House, & Utz, 2004; Granqvist, 2002; Granqvist & Hagekull, 2003; Kirkpatrick, 1997, 1998). Second, experimental studies have indicated that attachment may act as a causal agent that affects religious outcomes (Birgegard & Granqvist, 2004; Mikulincer et al., 2007). Of course, this does not rule out the possibility of bidirectional influences between attachment and religion; indeed, such would be present if the earned-security-by-religion speculation above is accurate for at least some study participants.

The comparison between priests and religious and lay participants on the attachment-to-God measure can be questioned on conceptual grounds. To begin with, the distinction between the religiosity of priests and religious and of laypeople was used as a

nonvalidated proxy for the relative likelihood of experiencing a principal attachment to God. Also, some lay individuals may not, in fact, have experienced an attachment to God at all (whether principal or not), in which case the question of the quality of such individuals’ God attachment becomes nonsensical. Partly because of this risk, we examined the possibility of differential concordance between secular attachment and attachment to God across the two study groups (see Footnote 1). In any event, the finding of an overrepresentation of ambivalent and an underrepresentation of secure attachment to God in the lay group compared with the group of priests and religious should be interpreted with considerable caution. An alternative interpretation is that the attachment-to-God measure may have conflated secure attachment with attachment proper. This ambiguity illustrates a need for future researchers to independently determine if an attachment to God is present before its quality is assessed.

Another caveat is that our God representation indexes were based on rather simple and explicit self-report measures, which are probably unable to tap structural incoherencies (cf. multiple models; Bowlby, 1973, 1980; Main, 1991) and unconscious aspects of the participants’ God representations. Nevertheless, the God image scales—particularly the Loving God scale—generally displayed predicted relations, which ameliorates this concern to some degree. However, the same cannot be said for the attachment-to-God measure. Classifications from this measure were unrelated to both AAI state of mind classifications and the continuous AAI security dimension. Moreover, secure attachment to God was generally orthogonal to probable experiences with parents, although with the anomalous exception noted above. In addition, although insecure-ambivalence is usually a rare attachment category, a small majority of the lay participants classified themselves in the ambivalent attachment-to-God category. Finally, a mere 2% of the total sample classified themselves as insecure-avoidant. All of these results are problematic and point to a need for more valid assessments of attachment to God. Although several multi-item self-report scales have recently been constructed (see Granqvist & Kirkpatrick, 2008, for a review), we believe that much would be gained if AAI-parallel methods with the capacity to tap structural incoherencies in God representations were developed. One such interview method, modeled after the AAI protocol format, has been constructed but as of yet has not been evaluated (Granqvist & Main, 2003).

In addition, though reliability was generally satisfactory, there was inadequate reliability for some probable experience and God image scales and unknown reliability for the attachment-to-God measure. Although this is a genuine problem, it likely served to attenuate our findings. Nevertheless, future studies should aim for consistently reliable assessments.

Moreover, when this study was designed the social aspect of the correspondence hypothesis was overlooked (e.g., no parental reli-

³ The proportion of participants judged U in that study was 12%. Note, however, that that proportion is likely inflated if taken as a proportion of U among religious individuals, due to the inclusion of some nonreligious participants and some individuals subscribing to a New Age philosophy in that sample (as expected, U was found to be overrepresented among “New Agers”; see Granqvist, Fransson, & Hagekull, 2008, for an explanation of this finding).

giousness measure was included). It may be recalled from the introduction that securely attached individuals who have experienced sensitive caregiving are expected to become actively religious insofar as their parents were during their upbringing (social correspondence). We advise future researchers with an interest in extending these findings to give attention to the idea of social correspondence.

Finally, due to the low statistical power resulting from a relatively low number of participants and the use of categorical chi-square analyses, we performed more statistical analyses than would have been ideal (e.g., using 2×2 instead of 2×4 tables). Though we aimed to avoid making unnecessary Type II statistical errors, there is thus some risk that Type I errors occurred. Although this possibility should not be dismissed lightly, results were largely consistent across analyses.

To conclude, and notwithstanding the above limitations, the present study has indicated a novel link between an example of radically intense religiosity (used as a proxy for the experience of a principal attachment to God) and developmentally validated attachment security assessments. The study has also added another important piece of empirical evidence to the idea that internal working models derived from the parental relationships are generalized to people's perceptions of the divine.

References

- Ainsworth, M. D. S. (1985). Attachments across the life span. *Bulletin of the New York Academy of Medicine*, 61, 792–812.
- Ainsworth, M. D. S., Blehar, M. C., Waters, E., & Wall, S. (1978). *Patterns of attachment: A psychological study of the Strange Situation*. Hillsdale, NJ: Erlbaum.
- Belavich, T. G., & Pargament, K. I. (2002). The role of attachment in predicting spiritual coping with a loved one in surgery. *Journal of Adult Development*, 9, 13–29.
- Belsky, J. (2002). Developmental origins of attachment styles. *Attachment and Human Development*, 4, 166–170.
- Benson, P., & Spilka, B. (1973). God image as a function of self-esteem and locus of control. *Journal for the Scientific Study of Religion*, 12, 297–310.
- Bergin, A. E., & Jensen, J. P. (1990). Religiosity and psychotherapists: A national survey. *Psychotherapy*, 27, 3–7.
- Birgegard, A., & Granqvist, P. (2004). The correspondence between attachment to parents and God: Three experiments using subliminal separation cues. *Personality and Social Psychology Bulletin*, 30, 1122–1135.
- Bowlby, J. (1969/1982). *Attachment and loss: Vol. 1. Attachment*. New York: Basic Books.
- Bowlby, J. (1973). *Attachment and loss: Vol. 2. Separation*. New York: Basic Books.
- Bowlby, J. (1980). *Attachment and loss: Vol. 3. Loss*. New York: Basic Books.
- Brown, S. L., Nesse, R. M., House, J. S., & Utz, R. L. (2004). Religion and emotional compensation: Results from a prospective study of widowhood. *Personality and Social Psychology Bulletin*, 30, 1165–1174.
- Frodi, A., Dernevik, M., Sepa, A., Philipson, J., & Bragesjo, M. (2001). Current attachment representations of incarcerated offenders varying in degree of psychopathy. *Attachment and Human Development*, 3, 269–283.
- George, C., Kaplan, N., & Main, M. (1996). *Attachment interview for adults* (3rd ed.). Unpublished manuscript, University of California, Berkeley.
- Granqvist, P. (1998). Religiosity and perceived childhood attachment: On the question of compensation or correspondence. *Journal for the Scientific Study of Religion*, 37, 350–367.
- Granqvist, P. (2002). Attachment and religiosity in adolescence: Cross-sectional and longitudinal evaluations. *Personality and Social Psychology Bulletin*, 28, 260–270.
- Granqvist, P., Fransson, M., & Hagekull, B. (2008). *Adult attachment, absorption, and New Age spirituality: A prospective study based on the Adult Attachment Interview*. Manuscript submitted for publication.
- Granqvist, P., & Hagekull, B. (1999). Religiosity and perceived childhood attachment: Profiling socialized correspondence and emotional compensation. *Journal for the Scientific Study of Religion*, 38, 254–273.
- Granqvist, P., & Hagekull, B. (2003). Longitudinal predictions of religious change in adolescence: Contributions from the interaction of attachment and relationship status. *Journal of Social and Personal Relationships*, 20, 793–817.
- Granqvist, P., Ivarsson, T., Broberg, A. G., & Hagekull, B. (2007). Examining relations between attachment, religiosity, and New Age spirituality using the Adult Attachment Interview. *Developmental Psychology*, 43, 590–601.
- Granqvist, P., & Kirkpatrick, L. A. (2004). Religious conversion and perceived childhood attachment: A meta-analysis. *International Journal for the Psychology of Religion*, 14, 223–250.
- Granqvist, P., & Kirkpatrick, L. A. (2008). Attachment and religious representations and behavior. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 906–933). New York: Guilford.
- Granqvist, P., Ljungdahl, C., & Dickie, J. R. (2007). God is nowhere, God is now here: Attachment activation, security of attachment (SAT), and God proximity among 5–7 year-old children from religious and non-religious homes. *Attachment & Human Development*, 9, 55–71.
- Granqvist, P., & Main, M. (2003). *The Attachment to God Interview*. Unpublished manuscript, Uppsala University, Sweden.
- Hesse, E. (2008). The Adult Attachment Interview: Historical and current perspectives. In J. Cassidy & P. R. Shaver (Eds.), *Handbook of attachment: Theory, research, and clinical applications* (2nd ed., pp. 552–598). New York: Guilford.
- Kirkpatrick, L. A. (1992). An attachment-theory approach to the psychology of religion. *International Journal for the Psychology of Religion*, 2, 3–28.
- Kirkpatrick, L. A. (1997). A longitudinal study of changes in religious belief and behavior as a function of individual differences in adult attachment style. *Journal for the Scientific Study of Religion*, 36, 207–217.
- Kirkpatrick, L. A. (1998). God as a substitute attachment figure: A longitudinal study of adult attachment style and religious change in college students. *Personality and Social Psychology Bulletin*, 24, 961–973.
- Kirkpatrick, L. A. (2005). *Attachment, evolution, and the psychology of religion*. New York: Guilford Press.
- Kirkpatrick, L. A., & Shaver, P. R. (1990). Attachment theory and religion: Childhood attachments, religious beliefs, and conversion. *Journal for the Scientific Study of Religion*, 29, 315–334.
- Kirkpatrick, L. A., & Shaver, P. R. (1992). An attachment theoretical approach to romantic love and religious belief. *Personality and Social Psychology Bulletin*, 18, 266–275.
- Main, M. (1991). Metacognitive knowledge, metacognitive monitoring, and singular (coherent) vs. multiple (incoherent) models of attachment: Findings and directions for future research. In C. M. Parkes & J. Stevenson-Hinde (Eds.), *Attachment across the life cycle* (pp. 127–159). London: Routledge.
- Main, M., Goldwyn, R., & Hesse, E. (2003). *Adult attachment scoring and classification systems*. Unpublished manuscript, University of California, Berkeley.
- Main, M., Hesse, E., & Kaplan, N. (2005). Predictability of attachment behavior and representational models at 1, 6, and 19 years of age: The

- Berkeley longitudinal study. In K. E. Grossmann, K. Grossmann, & E. Waters (Eds.), *Attachment from infancy to adulthood* (pp. 245–304). New York: Guilford.
- Mikulincer, M., Gurwitz, V., & Shaver, P. R. (2007, August). *Attachment security and the use of God as a safe haven: New experimental findings*. Paper presented at the 115th convention of the American Psychological Association, San Francisco, CA.
- Mikulincer, M., & Shaver, P. R. (2006). *Attachment in adulthood: Structure, dynamics, and change*. New York: Guilford.
- Noller, P. (1992). Religion conceptualized as an attachment process: Another deficiency approach to the psychology of religion? *International Journal for the Psychology of Religion*, 2, 29–36.
- Pearson, J. L., Cohn, D. A., Cowan, P. A., & Cowan, C. P. (1994). Earned and continuous security in adult attachment: Relation to depressive symptomatology and parenting style. *Development and Psychopathology*, 6, 359–373.
- Solomon, S., Greenberg, J., & Pyszczynski, T. (2004). The cultural animal: Twenty years of terror management theory and research. In J. Greenberg, L. Koole, & T. Pyszczynski (Eds.), *Handbook of experimental existential psychology* (pp. 3–12). New York: Guilford.
- Spilka, B., Hood, Jr., R. W., Hunsberger, B., & Gorsuch, R. (2003). *The psychology of religion: An empirical approach* (3rd ed.). New York: Guilford.
- Sroufe, L. A., & Waters, E. (1977). Attachment as an organizational construct. *Child Development*, 48, 1184–1199.
- van IJzendoorn, M. H., & Bakermans-Kranenburg, M. J. (1996). Attachment representations in mothers, fathers, adolescents, and clinical groups: A meta-analytic search for normative data. *Journal of Consulting and Clinical Psychology*, 64, 8–21.
- Waters, E., Treboux, D., & Crowell, C. F. J. (in press). *Scoring secure base instrument*. Stony Brook, NY: State University of New York.

Received November 7, 2007

Revision received April 5, 2008

Accepted June 17, 2008 ■