

Examining Relations Among Attachment, Religiosity, and New Age Spirituality Using the Adult Attachment Interview

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This study was the first to examine relations between attachment and religion–spirituality in adults using a developmentally validated attachment assessment, the Adult Attachment Interview. Security of attachment was expected to be linked to a religiosity–spirituality that is socially based on the parental relationships and reflects extrapolation of attachment experiences with sensitive parents to perceived relationships with a loving God. Insecurity of attachment was expected to be related to religiosity–spirituality via emotional compensation for states of insecurity. Participants ($N = 84$; 40% men; mean age = 29 years) were drawn from religious–spiritual groups. Religiousness–spirituality was assessed with questionnaires. Results generally supported the hypotheses ($ps < .05$). Estimates of parental loving were linked to socially based religiosity, loving God images, and gradual religious changes occurring at early ages and in life contexts indicating a positive influence of close relationships. Estimates of parental rejection and role reversal were related to New Age spirituality and sudden–intense religious changes occurring in life contexts of turmoil. Current attachment state of mind was generally unrelated to traditional religiosity, but current preoccupation, unresolved–disorganized, and cannot classify states were associated with New Age spirituality.

Keywords: Adult Attachment Interview, religion, religious change, God image, New Age

What are the ontogenetic foundations involved in the development of an individual's religiosity and spirituality? Beginning with James (1902) and Freud (1927/1964), there has been a long-standing interest in processes emanating from children's relationship with primary caregivers that influence the development of religiosity. More recently, scholars have turned their attention specifically to attachment-related processes (Granqvist & Dickie, 2006; Kirkpatrick, 2005; Spilka, Hood, Hunsberger, & Gorsuch, 2003). The present study complements the current body of self-report research on adult attachment and religion, being the first to include the Adult Attachment Interview (AAI; Main, Goldwyn, &

Hesse, 2003). We tested whether independent estimates of attachment, as captured via the AAI, are related to the religiosity–spirituality profiles delineated in previous self-report studies. We also examined whether religiosity–spirituality is best predicted by a coder's estimates of probable experiences with parents in childhood or by current state of mind regarding attachment.

Attachment Theory as a Conceptual Framework Applied to Religion

Mammalian offspring possess a genetically based attachment system (Bowlby, 1969). The caregiver's sensitivity to the child's signals determines the child's cognitive representations (internal working models; IWMs) of self and others (Ainsworth, Blehar, Waters, & Wall, 1978; Bowlby, 1973, 1980). Individual differences in IWMs underlie the organization of attachment behaviors in small children and linguistic processes regarding attachment in adults. Well-validated assessments have been devised to study parent-related attachment, most notably the Strange Situation in infants (Ainsworth et al., 1978) and the AAI in adults.

We define religion as “the personal beliefs, values, and activities pertinent to that which is supernatural, mysterious, and awesome” (Moberg, 1970, as cited in Koenig, Kvale, & Ferrel, 1988, p. 18). Among the many facets of religion, theistic believers assert that their personal relationship with God is the most important aspect of their religiousness (e.g., Gallup & Jones, 1989).

Kirkpatrick (2005) pioneered the use of attachment theory to understand the relational aspects of religion. According to Kirkpatrick (2005; Granqvist & Kirkpatrick, in press), believers' perceived rela-

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tionships with God meet the most important criteria for defining attachment relationships. These include seeking closeness to God in prayer and rituals, using God as a safe haven during distress, and using God as a secure base for exploring the environment.

Besides laying out the foundation for a normative attachment and religion framework, Kirkpatrick (2005) derived two general hypotheses from attachment theory concerning relations between security–insecurity of attachment and aspects of religiosity. First, he formulated a correspondence hypothesis concerning relations between individuals' IWMs of self–others and their perceived relationships with and images of God (IWM correspondence; see Bowlby, 1973, 1980). Through the operation of generalized IWMs, individuals with secure attachments were hypothesized to form relationships with a God perceived as loving and caring, whereas individuals with insecure attachments were expected either to not form a relationship with God or to perceive God as, for example, distant. This idea has been supported by, for instance, cross-cultural research showing that God is construed as more loving in cultures in which parenting is warm–accepting and more distant in cultures marked by rejecting parenting (e.g., Rohner, 1986).

In addition, a socially based aspect of religiosity was added to Kirkpatrick's (1998) correspondence hypothesis (Granqvist, 2002; Granqvist & Hagekull, 1999). Hence, besides IWM correspondence, it was suggested that the religious beliefs and behaviors of those who have formed secure attachments partly reflect the adoption of their sensitive attachment figure's own religious standards, whereas those with insecure attachments were hypothesized to be relatively less likely to adopt their more insensitive attachment figure's religious standards (social correspondence; Granqvist, 2002). This additional suggestion has been supported within numerous studies showing that parental religiosity is more similar to the religiosity of offspring with more favorable parental relationships than it is to the religiosity of offspring with less favorable parental relationships (e.g., Spilka et al., 2003). Such results also converge with findings in the attachment literature, indicating that securely attached offspring are more inclined to adopt parental standards in general (see Richters & Waters, 1991).¹

Second, Kirkpatrick (2005) suggested that the perceived God relationship serves a "surrogate attachment" function (relatedly, see Ainsworth, 1985) that helps insecurely attached individuals obtain a sense of felt security, where other attachments have failed (the compensation hypothesis). Hence, regulation of states of distress is at the core of this hypothesis (Granqvist, 2002). This idea has received support, for example, from findings showing that religious converts, whose conversions were often preceded by turmoil, report more unfavorable childhood relationships with parents than a matched comparison group of nonconverts (Ullman, 1982).

Rather than viewing the correspondence and compensation hypotheses as mutually exclusive, they may be seen as delineating different pathways to religion as well as to different modes of being religious (i.e., profiles). One of these paths is via experiences with sensitive, religious caregivers (correspondence); the other pathway is via regulation of distress following experiences with insensitive caregivers (compensation; Granqvist & Kirkpatrick, in press; Kirkpatrick, 2005).

Empirical Relations Between Attachment Security–Insecurity and Religion–Spirituality

A number of studies have examined relations between religiosity, on the one hand, and self-reports of attachment history with

parents and of current romantic attachment, on the other (for reviews, see Granqvist & Kirkpatrick, in press; Kirkpatrick, 2005).

Religiosity and Security of Attachment: The Correspondence Profile

In line with the idea of social correspondence, several studies have found attachment and parental religiousness to interact in the prediction of offspring religiousness (e.g., Granqvist, 1998; Kirkpatrick & Shaver, 1990). As hypothesized, self-reported security has been associated with a higher degree of offspring–parent similarity in religiosity than has self-reported insecurity.

In addition, individuals reporting secure attachment have been found unlikely to experience major fluctuations in religiousness over time (Granqvist, 2002; Kirkpatrick, 1997, 1998). To the extent that increases in religiousness occur among those reporting secure attachment, their religious changes are often gradual and occur at a relatively young age (Granqvist, 2002; Granqvist & Hagekull, 1999). Also, these religious changes tend to occur during particular life situations, which suggest that religiosity is being influenced by other close relationships; for example, the adoption of significant others' religious beliefs (Granqvist & Hagekull, 1999, 2003). Moreover, in support of IWM correspondence, the God image of individuals reporting secure attachment has been found to be loving and caring (Kirkpatrick, 1998; Kirkpatrick & Shaver, 1992). This profile of religious individuals resembles James's (1902) description of the "once-born" religion of "healthy-minded" individuals (Granqvist, 2003).

Religiosity, New Age Spirituality, and Insecurity of Attachment: The Compensation Profile

In contrast to the stable and loving God image described above, the God image of individuals reporting an insecure attachment has been found to be comparatively more distant and unstable (e.g., Kirkpatrick, 1998). Findings pertaining to the compensation hypothesis have indicated that the religiosity of these individuals fluctuates more over time and shows a disproportionately high rate of sudden conversions (e.g., Granqvist, 2002; Granqvist & Kirkpatrick, 2004). For these individuals, religious changes have also been found to be relatively sudden and intense and to be embedded in a life context (e.g., of relationship problems, separations, losses, and crises) pointing to the need for emotional support (e.g., Granqvist & Hagekull, 1999, 2003). This religious profile is similar to James's (1902) description of the "twice-born" religiosity of "sick souls" (Granqvist, 2003).

¹ Although IWM and social correspondence are independent in theory, they are not so in practice. For example, insofar as the caregiver has an overtly expressed God image, a secure offspring is expected to adopt his or her caregiver's God image to a larger extent than an insecure offspring, even if the God image is, for example, rejecting (social correspondence). On the other hand, the secure offspring is anticipated to have a less rejecting God image due to the operation of a generalized, positive set of working models (IWM correspondence). In practice, this is not a serious problem because a reliably sensitive caregiver's God image is unlikely to be rejecting. Hence, social and IWM correspondence tend to operate in concert rather than in opposition.

In addition to the study of attachment and aspects of traditional religion, attachment has been studied in relation to individualized forms of spirituality that have not been part of the primary socialization experience. Whereas religion (in the West) refers to a collectively prescribed belief system with reference to a metaphysical God, spirituality, as used here, denotes whatever private forms of self-transcendence in which the individual engages (Roehlkepartain, King, Wagener, & Benson, 2006). The distinction between the two is important when studying beliefs–activities of individuals who are not members of any religious organization yet claim that spiritual issues are important to them. In Western societies, the decline of traditional religion has co-occurred with an increase in such individualized forms of spirituality, most notably the New Age movement (Hammer, 1997; Houtman & Aupers, in press). The term *New Age* refers to a wide range of beliefs–activities that typically combine esotericism, astrology, outgrowths of humanist psychology, and Eastern thinking in a Western context (Singer & Nievod, 2003). As New Age-related activities–beliefs are almost orthogonal to the phenomena associated with traditional religion (e.g., Granqvist et al., 2005; Rice, 2003), traditional religion and alternative forms of spirituality, such as those found in the New Age movement, must be studied separately. In a previous questionnaire study, initial support was found for the compensation hypothesis in links between reports of insensitive experiences of parenting and high scores on a scale created to tap identification with New Age beliefs–activities (Granqvist & Hagekull, 2001).²

The relations between security–insecurity and religion–spirituality have generally held for reported experiences with both parents. A consistent finding from these studies is that self-reported parental attachment history is more strongly linked to religiosity–spirituality than is self-reported romantic attachment, which has led to a suggestion that the hypotheses should primarily refer to child–parent attachment (Granqvist, 2002; Granqvist & Hagekull, 2001).³

Methodological Shortcomings in Extant Studies on Attachment, Religion, and Spirituality

In spite of the new focus on attachment and religion–spirituality, no published study has used an attachment measurement that has been developmentally validated (e.g., in relation to observed parental sensitivity or to offspring attachment status). The published studies have relied solely on self-report assessments of romantic attachment or attachment history. A number of caveats are thus necessary. First, although self-reported attachment has only been shown to modestly relate to social desirability and moderately relate to negative affect (Crowell, Fraley, & Shaver, 1999), it cannot be ruled out that part of the shared variance between attachment self-reports and religiosity–spirituality is accounted for by such unexamined parameters. Second, although individual differences in self-reported attachment are conceptualized as partly stemming from attachment experiences with parents (e.g., Hazan & Shaver, 1987), to the best of our knowledge, no prospective study has shown that self-reported attachment is predictable from the Strange Situation or any other behaviorally anchored mode of childhood attachment assessment (see Belsky, 2002). Although studies have indicated intriguing associations between self-reported attachment and external phenomena assessed by means other than self-reports (Shaver & Mikulincer, 2002), the literature

has at best shown a modest correspondence between self-reported attachment and the method most frequently used to tap parent-related attachment state of mind in adults, the AAI (e.g., De Haas, Bakermans-Kranenburg, & van IJzendoorn, 1994; Shaver, Belsky, & Brennan, 2000; see Method for a description of the AAI).

In contrast, across the four studies in which both the original Strange Situation and AAI have been used, AAI-assessed state of mind was predictable from the same individual's Strange Situation classification in infancy (Hamilton, 2000; Main, Hesse, & Kaplan, 2005; Sroufe, Egeland, Carlson, & Collins, 2005; Waters, Merrick, Treboux, Crowell, & Alberstheim, 2000). Also, independent estimates of probable parental behavior in participants' childhoods, as derived in the AAI system, have been found related to their infant classifications (Main et al., 2005).

AAI methodology differs from self-report assessment in that, in assigning ratings and classifications, it does not take participant responses (content) at face value, but instead relies on an evaluation of the coherence (form) of attachment discourse. It is probably therefore more suited to tap what Bowlby (1973, 1980) referred to as the multiplicity of models (i.e., structural incoherency) that characterizes individuals with an insecure attachment organization. Thus, as self-reported attachment history is a consistent predictor of religiosity and there is an absence of prospective findings that support a link between early attachment and later attachment self-reports, the AAI may be considered the method of choice in this area of research insofar as an aim is to make inferences regarding an adult's childhood attachment experiences.

More generally, AAI studies are needed to examine the individual-difference aspects of attachment and religion–spirituality. For example, it could be that although self-reported romantic attachment is modestly related to religiosity and spirituality (e.g., Granqvist, 2002), independent estimates of the individual's current way of organizing information, memory, and linguistic representations in relation to his or her childhood attachments, as captured with the AAI, are more relevant. In that case, religiosity and spirituality would be related to current state of mind over and above the relation between religiosity and estimates of past parental attachment experiences.

The Present Study

The purpose of this study was twofold, to conceptually replicate and empirically extend previous studies on attachment, religiosity, and spirituality. More specifically, we tested whether independent estimates (i.e., not self-reports) of attachment, as captured via the AAI, are related to the religiosity and spirituality profiles that have been delineated in previous self-report studies. We also examined

² It is important to note that New Age orientation merely represents one example of the rejection of traditional beliefs in a particular context. It is currently an open question whether other examples have similar correlates (e.g., Westerners' conversion to Hinayana Buddhism, aboriginals' conversion to born-again Christianity, individuals raised in New Age communities [e.g., Sedona, AZ] converting to Roman Catholicism).

³ For a theoretically consistent exception, see Granqvist and Hagekull (2003), who found self-reported romantic attachment orientation to be an equally strong predictor as reports of attachment history with parents when predicting religious changes specifically in the context of romantic relationship formation and break-up.

whether religiosity and spirituality are best predicted by a coder's estimates of probable experiences with parents in childhood or by current state of mind regarding attachment.

On the basis of the two hypotheses (i.e., IWM–social correspondence and compensation), we expected an autonomous state of mind and experiences of loving parenting to be related to socially based religiosity (social correspondence) and a loving, as opposed to a distant, God image (IWM correspondence). When a period of increased religiousness had occurred, we expected an autonomous state of mind and experiences of loving parenting to be linked to slow religious changes, occurring at a relatively early age, and marked by life themes indicating the importance of relationships with religious significant others. In line with the compensation hypothesis, nonautonomous states of mind and experiences of insensitive (i.e., rejecting and role-reversing) parenting should be related to sudden and intense religious changes, occurring in a life context of emotional turmoil. Finally, although there is a paucity of research on attachment and New Age-related beliefs and activities, New Age-related beliefs and activities were anticipated to be linked to experiences with insensitive parents and nonautonomous states of mind.

Method

Participants and Procedure

The original sample consisted of 102 participants in Uppsala, Sweden. Sweden is a highly secular country with barely 10% identified as active Christians (Stark, Hamberg, & Miller, 2005). A predominantly religious–spiritual sample was selected, rather than a general population sample, to obtain adequate variation on religiousness–spirituality. Participants were visited at and recruited from religion–spirituality-relevant group gatherings. Eligible for inclusion were those aged 20–50 years who were fluent Swedish speakers. Fourteen women meeting the eligibility criteria were excluded to obtain a more even gender distribution. Also, 4 participants (5%) did not complete the study because of reasons of time pressure, having provided an address we were unable to locate, and/or their feeling that the research inquired into too private material. The mean age of the sample was 28.77 years ($SD = 9.39$, range = 20–50); 40% of participants were men. Information on level of education, occupation, or income was unavailable.

The final 84 participants were selected from two theology classes, one a general introductory course in theology ($n = 32$), the other a specialized course on the Greek language ($n = 12$); from a Pentecostal Movement student gathering ($n = 20$); from a Pentecostal Movement prayer meeting for former drug and alcohol addicts ($n = 2$); from a Bible study group, held by the Swedish Lutheran Church ($n = 2$); and from a student seminar on the relation between therapy and pastoral care ($n = 7$). Finally, to get participants who were not involved in organized religion but held an interest in spirituality, we recruited 9 participants via a news advertisement asking for participants to participate in a study about “spirituality and human relationships”; the same information was given to the other groups. No further information about the purpose of the study was provided.

At recruitment, confidentiality of participation was explained. Two weeks to 3 months later, participants were contacted by

phone, and interview appointments were scheduled. A questionnaire was mailed to participants. They filled out the questionnaire at least 2 days prior to the scheduled interview.

Attachment interviews were individually administered at a university department by Pehr Granqvist, and participants received two cinema gift certificates worth 70 kr (\$10) for participating. Interviews were tape recorded and transcribed verbatim. All interviews were coded by Pehr Granqvist, who was blind to all other data, except gender and age. Pehr Granqvist was trained at the University of Western Ontario by David Pederson in 1998 and achieved full reliability across 30 consecutive transcripts in 2000 with Mary Main and Erik Hesse at the University of California, Berkeley. Interviews were also coded by Tord Ivarsson, a certified AAI trainer.

Instruments and Constructs

All attachment-related variables were obtained via a semistructured interview (i.e., the AAI), whereas information regarding religiosity and spirituality was obtained via questionnaires. All participants responded to all instruments. Measurement characteristics, descriptive statistics, and reliabilities for the continuous variables are shown in Table 1.

The AAI. The AAI (Main et al., 2003; translated to Swedish by Broberg, Ivarsson, & Hinde, 1996) is a semistructured interview containing 20 questions. The interview normally varies in length between 45 and 90 min. The most important questions ask participants to select adjectives to describe their childhood relationships with parents, which they are subsequently asked to support by recalling specific episodes; to describe what they did as a child when emotionally upset, ill, and in pain, as well as what their parents did; to recall feelings associated with physical separation from parents; to elaborate on experiences of rejection and fear; and to speculate on the effects of childhood experiences on current personality. Another set of important questions concerns loss through death and experiences of abuse.

AAI rating scales and classifications. The AAIs were coded according to Main et al.'s (2003) scoring and classification system. The transcripts were coded on three types of scales: (a) probable experiences, (b) “organized” states of mind, and (c) unresolved–disorganized loss–abuse. Individuals were then classified into one of five categories based on his or her state of mind and unresolved–disorganized scores. The coder, not the participants, assigned the probable experience ratings. The coder did not only rely on the content of participant responses but on his or her own evaluation of the coherence of content, including discrepancies between semantic and episodic memories. Hence, for a parent to be assigned a high loving score, episodic memories of loving parental behaviors must be present. All probable experience scales were used in coding. For the economy of analyses and presentation, only the most important experience scale anchors for the different state of mind groups were used in subsequent analyses, namely *Loving*, *Rejecting*, and *Role Reversing* with regard to mother and father. 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, a high Rejecting score is assigned when a parent was thought to have frequently–severely turned down the child's bids for attachment, and a high Role Reversing score is assigned when a parent is thought to have utilized the child for his or her own sense of protection–security.

Table 1
Measurement Characteristics and Descriptive Statistics for the Continuous Scales

Variable	Scale range	No. of items	<i>M</i>	<i>SD</i>	Reliability coefficient ^a
Attachment dimensions					
Mother loving	1–9	1	3.90	1.55	.69
Mother rejecting	1–9	1	4.53	2.04	.77
Mother role reversal	1–9	1	2.83	1.91	.61
Father loving	1–9	1	3.68	1.59	.70
Father rejecting	1–9	1	4.14	1.81	.42
Father role reversal	1–9	1	1.84	1.49	.64
Unresolved–disorganized loss–abuse	1–9	1	3.53	1.47	.53
Religiosity variables					
SBRS					
Maternal items	1–6	10	3.24	1.46	.94
Paternal items	1–6	10	3.01	1.49	.95
Loving God	1–7	5	6.42	0.72	.72
Distant God	1–7	5	1.65	0.96	.86
Religious change	1–6	1	4.58	1.56	
Suddenness of change	1–3	1	2.14	0.70	
Age at change	12–45	1	21.17	7.68	
Themes of compensation	1–6	5	2.39	1.27	.79
Themes of correspondence	1–6	4	2.74	1.30	.67
New Age orientation	1–6	22	2.37	1.14	.95

Note. SBRS = Socialization-Based Religiosity Scale.

^aReliability for the attachment dimensions was computed with intraclass correlations; reliability for the religiosity–spirituality variables was computed with coefficient alphas.

Regarding state of mind with respect to attachment, the discourse of participants assigned a dismissing classification is characterized by idealization, insistence on lack of memory, and/or derogation of attachment. *Idealization* refers to structural inconsistency between positive–generalized portrayals of parents and the failure to support these portrayals with episodic memories, *insistence on lack of memory* refers to frequent claims of not remembering childhood events–relationships, and *derogation* refers to contemptuous dismissal of attachment figures–experiences. Transcripts of dismissing participants also typically emphasize personal strength–invulnerability. When negative experiences are recounted, any negative influence on the participant’s development is dismissed; indeed, the person may claim to have been strengthened by them.

The speech of individuals assigned a preoccupied state of mind is characterized by involving anger or passivity of thought processes in relation to attachment. *Involving anger* refers to responses indicative of 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 (e.g., self–parent misidentifications, childlike speech). Also, preoccupied participants often present an image of authoritativeness surrounding psychological issues, conveyed in overused phrases and clinical jargon, which often serve to denigrate attachment figures.

Interviewees providing coherent discourse regarding attachment are assigned an autonomous state-of-mind classification. *Coherence* refers to the extent to which participants are collaborative, and the transcript provides a credible, internally consistent, free-flowing picture of the participant’s experiences and feelings regarding attachment. Also, autonomous participants show signs of valuing attachment figures–events and typically acknowledge vulnerable feelings. They provide coherent discourse whether their

experiences with parents were primarily positive or negative. In the latter case, coherence often coincides with attempts to understand–forgive parental shortcomings.

Participants who fail to achieve an organized stance in the interview or alternate between highly preoccupied and highly dismissing speech are assigned to a fourth *cannot classify* (CC) category. This category is often referred to as indicating global, as opposed to trauma-specific (see below), disorganization (Main et al., 2003).

Unresolved–disorganized loss–abuse is scored on a separate scale tapping speech specifically surrounding loss–abuse experiences. A high score refers to discourse characterized by one or more of three subtypes of unresolved speech: striking lapses in the monitoring of reasoning (e.g., as implied in the belief that a dead person remains alive in the physical sense or via considerable spatial–temporal confusion surrounding the loss event), striking lapses in the monitoring of discourse (e.g., visual–sensory images related to the trauma intrude discourse), and extreme–lingering behavioral reactions to the traumatic event. The highest score assigned to any given loss or abuse incident is used as the overall unresolved–disorganized loss–abuse score.

The reliability and validity of the AAI are well-established (Hesse, 1999). Coding and classifications also have been shown to be relatively immune to potential halo biases resulting from having the same person as interviewer and coder (Sagi et al., 1994). Nevertheless, to guard against this potential problem, we also had the interviews coded by a second coder. The interrater reliability across 46 cases was 80% for the autonomous, dismissing, preoccupied, and cannot classify categories ($k = .64$, $p < .001$; for reliability of the experience ratings, see Table 1). Disagreements were resolved through discussion and (in some cases) by Anders G. Broberg, also a certified AAI trainer.

Religiosity–spirituality measures. The Socialization-Based Religiosity Scale (Granqvist & Hagekull, 1999) was used to tap the degree to which participants adopted their parents' religious standards–nonstandards (e.g., “I will probably give/I give my children an equally religious/non-religious upbringing as my mother gave me” and “Religion is equally important/unimportant to me as it was to my father during my childhood”). Adequate internal consistency has been established, and the measure has displayed theoretically anticipated relations with self-reported attachment (Granqvist, 2002; Granqvist & Hagekull, 1999).

Participants' images of God were assessed with Benson and Spilka's (1973) semantic differential Loving God Image scale. This scale was derived through factor analysis and consists of the following adjective pairs, which participants were asked to rate for fit with their own God image: “rejecting–accepting” (reversed in coding), “loving–hating,” “damning–saving” (reversed in coding), “unforgiving–forgiving” (reversed in coding), and “approving–disapproving.” We also used Kirkpatrick and Shaver's (1990) semantic differential Distant God Image scale, consisting of the following adjective pairs: “distant–close,” “impersonal–personal,” “not comforting–comforting,” “not available–available,” and “not responsive–responsive.” Scale scores have shown adequate internal consistency and test–retest reliability (Kirkpatrick, 1998), have been predictably related to self-reported attachment (Kirkpatrick, 1998; Kirkpatrick & Shaver, 1992), and have displayed other aspects of satisfactory validity (Benson & Spilka, 1973; Spilka et al., 2003). As these assessments of God image presuppose a belief in God, only participants who answered affirmatively to the question: “Do you have a belief in God?” ($n = 70$) were included in subsequent analyses.

Religious change was assessed with the following statement: “I have experienced a change which meant that religion became more important to me during a period of my life” (Granqvist & Hagekull, 2000, adapted from Kirkpatrick & Shaver, 1990). Those who agreed with this statement (i.e., scored > 3) were assigned to a religious change group ($n = 66$). Participants in the change group were asked to choose one of the following alternatives to describe the suddenness of change: (a) “a slow, gradual change over a long period of time,” (b) “a slow, gradual change with one or more relatively intense experiences and changes,” and (c) “an intense and sudden personal experience” (scored 1–3; Kirkpatrick & Shaver, 1990). Respondents who had indicated religious change were also asked to specify age at change by writing their age at change in years. In addition, participants in the religious change group responded to Granqvist and Hagekull's (1999) Themes of Compensation scale and a revised Themes of Correspondence scale, describing empirically derived (Granqvist, 1998) life contexts associated with religious change. Participants read a list of items describing life situations and marked each of these with regard to how characteristic it was for their lives at the time of their religious changes. Themes of Compensation are defined as life contexts indicating that religion filled an emotionally supportive function for an individual in need: “problem in love relationship–divorce,” “relationship problem within family–with others,” “mental or physical illness,” “other personal crises.” The revised Themes of Correspondence scale consists of four items concerning life contexts pointing to the importance of relationships with religious significant others: “close friendships with believers,” “meetings–discussions with believers,” “membership in religious youth associations,” and “experiences during the period of preparations for the first communion” (a new item).

Each of the religious change and characteristics of change variables have displayed predicted relations with self-reported attachment (Granqvist, 2002; Granqvist & Hagekull, 1999). The internal consistency of Themes of Compensation was also found adequate in both studies, whereas Themes of Correspondence failed to display adequate internal consistency in Granqvist's (2002) study; hence, a new item was added in the present study.

The New Age Orientation Scale (NAOS; Granqvist & Hagekull, 2001) was constructed to assess individual differences in the adoption of New Age-related beliefs, interests, and activities. Sample items include “Compared to most religious and non-religious people, I am probably somewhat of a spiritual seeker with an unusually open mind,” “The position of the stars at birth affects how one will live one's life or how one's personality develops,” and “One's external world is mainly a mirror image of one's inner world, so that outer processes above all reflect one's inner processes.” In spite of the theoretical heterogeneity of New Age phenomena, across three Swedish samples of adults in the New Age movement, adolescents from the general population, and undergraduate students, NAOS has been found empirically to be unidimensional in factor analyses (Granqvist et al., 2005; Granqvist & Hagekull, 2001). Also, across these samples and a British sample (Farias, Claridge, & Lalljee, 2005), the scale has shown high internal consistency. Therefore, the mean score on the full scale was used. The construct validity of NAOS has been supported (Farias et al., 2005; Granqvist & Hagekull, 2001).

Statistical Analyses and Strategies for Hypothesis Testing

Pearson product–moment correlations, t tests, and multiple regressions were used to test relations between attachment and religiosity–spirituality. To analyze whether past experiences and/or current state of mind explains unique religiosity–spirituality variance, we used an aggregated mother and father loving score ($r = .65, p < .0001$) in subsequent regression analyses. The parental loving scale, which captures the range of unloving (e.g., rejection and role reversal) to loving behaviors, was the only probable experience scale used in these analyses, to avoid multicollinearity in predictors. The continuous unresolved scores, rather than discrete unresolved–disorganized classifications, were used to retain all scale variance, some of which would have been lost if classification comparisons had been made. For statistical power reasons, and as we had no a priori predictions of differences among the nonautonomous groups, we conducted t tests comparing the autonomous and nonautonomous groups in the primary analyses.⁴ We used the autonomous, dismissing, preoccupied, and CC groups, but not classifications of unresolved–disorganized, in all primary analyses to avoid redundancy with the correlations between unresolved scores and religiosity–spirituality variables.

⁴ Supplementary analyses of variance were run on all religiosity and spirituality variables based on the four-way (autonomous, dismissing, preoccupied, CC) and five-way (including unresolved–disorganized) AAI classifications. Results from these analyses correspond to the pattern of results obtained from the analyses reported; those based on the four-way classifications generally failed to reach significance, whereas those based on the five-way classifications occasionally showed the unresolved–disorganized group to differ from the others. More detailed information pertaining to these analyses can be obtained from Pehr Granqvist.

Table 2
Correlations Between Religiosity–Spirituality Variables and the Probable Experience and Unresolved (U) State-of-Mind Scales

Religiosity–spirituality variable	Mother experience scales			Father experience scales			U score
	Loving	Rejecting	Role reversal	Loving	Rejecting	Role reversal	
SBRS							
Maternal items	.39***	–.28*	–.36***	.41***	–.36**	–.28*	–.07
Paternal items	.29**	–.21	–.30**	.46***	–.36**	–.27*	–.12
God image^a							
Loving God	.25*	–.21	–.34**	.05	.07	–.06	–.13
Distant God	–.20	.11	.27*	–.02	–.13	.22	.08
Religious change^b							
Suddenness of change	–.25*	.27*	.23	–.13	.11	–.01	.12
Age at change	–.46***	.48***	.32**	–.34**	.42***	.14	.38**
Themes of compensation	–.39***	.38**	.32*	–.30*	.23	.19	.18
Themes of correspondence	.26*	–.20	–.16	.11	–.14	–.11	–.07
New Age orientation	–.47***	.47***	.27*	–.29**	.36**	.27*	.24*

Note. $N_s = 66–84$. SBRS = Socialization-Based Religiosity Scale.

^a $n = 70$ in correlations with God image (i.e., including only participants with theistic beliefs). ^b $n = 66$ in correlations with religious change variables. * $p < .05$. ** $p < .01$. *** $p < .001$.

Results

Descriptive Results and Preliminary Analyses

Descriptive results for the continuous variables are shown in Table 1. The AAI distribution was as follows: autonomous, $n = 39$ (46%); dismissing, $n = 34$ (40%); preoccupied, $n = 6$ (7%); and CC, $n = 5$ (6%).⁵ There was only one gender difference: Coders judged paternal role reversal to be higher among women than men. Supplemental analyses were run on this variable, partialling out the influence of gender. Results were virtually identical to results obtained when gender was not partialled out. Therefore, results from the latter analyses are presented. The New Age and religion variables were modestly correlated ($Mdn r = .35$; range = .00–.48). As in a previous study (Granqvist & Hagekull, 2001), New Age orientation was positively correlated with compensation variables (suddenness of change, themes of compensation) and negatively correlated with correspondence variables (loving God, socially based religion, early age at change, themes of correspondence). The relations were modest enough to show conceptual independence. Hence, relations with attachment measures were analyzed separately for the religion and New Age variables.

Hypothesis Testing

Results from hypotheses testing are presented in Tables 2 and 3. Table 2 shows correlations between the continuous experience and unresolved scale scores and religiosity–spirituality variables. Table 3 shows mean comparisons between AAI groups on New Age orientation.

Attachment and two aspects of religious correspondence. We predicted parental loving and an autonomous state of mind to be positively related to socially based religiosity (social correspondence) and to a loving, as opposed to a distant, God image (IWM correspondence). As expected, high parental loving scores were associated with high scores on socially based religiosity, whereas high parental rejection and role-reversal scores were linked to low scores on socially based religiosity (see Table 2). The IWM aspect of the correspondence hypothesis received mixed support. High

maternal loving scores were associated with high loving God image scores, whereas high maternal role reversal was linked to low scores on a loving God image and high scores on a distant God image. The correlations between maternal rejection and God image were similar to those observed between maternal role reversal and God image but failed to reach significance. The father experience ratings were not significantly associated with God image scores. The state-of-mind indices, unresolved scale scores (see Table 2) and the autonomous versus nonautonomous classifications, were unrelated both to socially based religiosity and God image scores (in the comparisons between autonomous and nonautonomous participants), all $t_s(82) < 1.40$.

Attachment and characteristics of religious change. We predicted that, when religious change had been experienced, high parental loving and an autonomous state of mind would be linked to slow change, at a relatively young age, marked by life themes of correspondence. A nonautonomous state of mind and high rejection and/or role reversal were predicted to be linked to sudden religious changes and themes of compensation. Analyses concerning attachment in relation to these variables were run only on data from participants in the religious change group.

With respect to probable experiences (see Table 2), most predictions were supported, particularly in relation to experiences with mother. High maternal loving scores were associated with gradual and early changes, low scores on themes of compensation, and high scores on themes of correspondence. In contrast, high maternal rejection scores were linked to sudden–intense changes, at a relatively higher age, and high scores on themes of compensation. High scores on mother role reversal pointed in the same direction but were only significantly related to age at change and themes of compensation. Father loving scores were related to age at change and themes of compensation in the same direction as mother loving scores but were not significantly related to suddenness of change or themes of correspondence. The only negative

⁵ When we used classifications of unresolved–disorganized, 12 participants (14%) received a primary unresolved–disorganized classification.

Table 3
Means and Standard Deviations on the New Age Orientation Scale for the Adult Attachment Interview (AAI) State-of-Mind Groups and Results From a One-Way Analysis of Variance

	AAI classification								F (3, 80)
	Autonomous (n = 39)		Dismissing (n = 34)		Preoccupied (n = 6)		Cannot classify (n = 5)		
	M	SD	M	SD	M	SD	M	SD	
New Age spirituality									
New Age Orientation Scale	2.07 ^a	0.92	2.28 ^a	1.02	3.25 ^b	1.66	4.16 ^b	0.92	7.82 ^{***}

Note. Means with different superscripts differed significantly ($p < .05$) according to post hoc Newman-Keuls tests.

*** $p < .001$.

paternal scale that was significantly related to characteristics of change was father rejection, which was linked to changes in religiosity occurring at a higher age.

Concerning state of mind, high unresolved scores were associated with late changes, but unresolved scores were unrelated to remaining aspects of religious change. The comparisons between autonomous versus nonautonomous state-of-mind groups on the religious change variables were in all cases nonsignificant, all $t_s(64) < 0.80$. A standard multiple regression analysis was run to test whether combined parental loving and unresolved loss–abuse uniquely predicted participants' age at the time of religious change. The overall equation was significant, $F(2, 63) = 10.84$, $p < .001$, adjusted $R^2 = .23$. Both parental loving ($\beta = -.35$, $p < .01$) and unresolved loss–abuse ($\beta = .26$, $p < .05$) significantly and uniquely contributed.

Attachment and New Age spirituality. In a final set of analyses, the relation between attachment and New Age orientation was considered. As expected, parental loving scores were negatively related to scores on the New Age variable, whereas high parental rejection and role-reversal scores were associated with high New Age scores (see Table 2). As for state of mind, high New Age scores were linked to high unresolved scores. Also, nonautonomous participants had significantly higher New Age scores than their autonomous counterparts, $t(82) = 2.26$, $p < .05$, at a medium effect size level ($d = 0.50$). To explore which of the state-of-mind groups differed on the New Age variable, we performed a one-way analysis of variance, with AAI classification (autonomous, dismissing, preoccupied, and CC) as the independent variable and NAOS as the dependent variable (see Table 3), followed up by post hoc Newman-Keuls tests. Results from the post hoc tests show that the preoccupied and CC groups had higher means on the New Age variable than did the autonomous and dismissing groups. No other comparisons yielded significant differences. On the basis of the post hoc test results, we combined the preoccupied and CC groups into one group and the autonomous and dismissing groups into another. The effect size of the difference in means between the combined groups was large ($d = 1.48$).

To examine which of the attachment variables predicted unique variance in New Age scores, we performed a multiple regression analysis, with combined parental loving, unresolved loss–abuse, and a dummy-coded autonomous and dismissing (0) versus preoccupied and CC (1) contrast as predictors and the New Age scale

as the outcome variable. The overall equation was significant, $F(3, 79) = 9.08$, $p < .001$, adjusted $R^2 = .23$. Parental loving ($\beta = -.25$, $p < .05$) and the autonomous and dismissing versus preoccupied and CC contrast ($\beta = .31$, $p < .05$) made unique contributions, whereas unresolved loss–abuse ($\beta = .05$) did not.

Discussion

Summary, Notable Findings, and Discussion of Results in Relation to Previous Findings

In support of the correspondence hypothesis, we found that estimated experiences with loving parents were linked to a socially based religiosity (social correspondence), to a loving God image (IWM correspondence), and to gradual religious change marked by early onset and occurring during life situations that point to the importance of relationships with religious significant others. In support of the compensation hypothesis, we found that estimated experiences with insensitive (rejecting and/or role-reversing) parents were associated with the adoption of New Age-related beliefs and activities and with sudden religious changes during life situations of emotional turmoil. Overall, the study conceptually replicated and extended previous findings obtained via questionnaires on attachment and religiosity–spirituality, by utilizing a developmentally validated measure of attachment. The hypotheses were thus further corroborated. Also, results concerning traditional religion converged with the suggestion that childhood experiences with parents, rather than current attachment organization, should hold the primary referential positions in the hypotheses (Granqvist, 2002). However, among those endorsing New Age beliefs, current insecure attachment organization was overrepresented in the form of elevated disorganized (i.e., unresolved–disorganized and CC) and preoccupied AAI states.

A notable finding was that estimated experiences with one's mother, but not one's father, were linked to a loving God image and themes of correspondence. In contrast, the other study findings generally displayed the predicted pattern for both parents. The reason for these discrepancies may be clarified by distinguishing between the two aspects of the correspondence hypothesis. God image primarily taps into IWM aspects of attachment, as do some themes of correspondence. Given that a mother is the primary attachment figure for most children, the relationship with her

should be more powerful in shaping the individual's IWMs. Thus, although God is often described in paternal terms (e.g., the Father), maternal attributes (i.e., a mother's sensitivity) seem to be more important for the individual's construction of the deity (Kirkpatrick, 2005). The other aspect of correspondence (i.e., religiosity as socially based) received as much support in relation to experiences with a father. This finding is consistent with previous studies (Granqvist, 2002; Granqvist & Hagekull, 1999) and seems to have ecological validity in that fathers have been speculated to be as important as mothers in defining the central values of the family to be transmitted to the next generation (see Hagekull & Bohlin, 1998).

Relations similar to those obtained in this study with the AAI also have been reported between childhood experiences and adult religiosity when retrospective participant ratings of parenting were used. However, regardless of the means used to measure attachment, current attachment has been less consistently and strongly linked to religiosity than estimates of attachment history. With regard to state of mind as derived in the AAI, unresolved states predicted participants' age at religious change. In general, however, compared with current attachment, past experiences seem to be stronger determinants of the individual's religiosity, even though current attachment largely is based on these experiences. In practice, with the exception of unresolved loss–abuse considerations, this means that individuals with adverse attachment histories fit the compensation profile regardless of their current attachment status.

An examination of religiosity variables within each state-of-mind group showed similar means for participants classified as dismissing and autonomous (data not shown: *Mdn d* = 0.11; range = .03–.23). Likewise, they had similar means on the NAOS (see Table 3; *d* = 0.23). Because the majority of participants with a nonautonomous state of mind was assigned to the dismissing category, the nonautonomous group could not be differentiated from the autonomous on the religiosity variables, unlike on the New Age variable. The finding that specifically disorganized and preoccupied individuals tend to endorse New Age-related beliefs and activities fit well with previous findings.

Regarding disorganization, childhood abuse, a robust precursor of disorganization (Main & Morgan, 1996), has been associated with nontheistic forms of paranormal and related experiences (Eisen & Carlson, 1998; Reinert & Smith, 1997). Also, George and Solomon (1999) have reported that mothers classified as disorganized attributed supernatural powers to their offspring (e.g., psychic power, special connection with the deceased). Moreover, there are striking resemblances between New Age beliefs and unresolved states in the AAI (e.g., personal contact with the dead, alleged spiritual possession by abusive perpetrators). Not surprisingly, then, even in a cultural context like the San Francisco Bay Area, where New Age beliefs are not too culturally disconnected, unresolved states have been found to be moderately linked to scores on a scale created to tap various experiences and beliefs that, coincidentally, are cardinal ingredients in the New Age movement (e.g., astrology, precognition, contact with the dead, spiritual possession, psychic powers, telepathy, reincarnation; Hesse, 1999; Main & Morgan, 1996).

An explanation, extrapolated from Hesse and van IJzendoorn's (1999) study, for why these particular spirituality characteristics are associated with disorganized states could be a propensity to

enter into dissociative–absorbing mental states, where the individual's attentional processes are temporarily broken down, resulting in a mental state shift. In the case of attachment, disorganization in infancy (Carlson, 1998) and adulthood (Hesse & van IJzendoorn, 1999) has been shown predictive of such shifts. Unlike traditional religiosity, New Age orientation also has been predictive of such state shifts (Granqvist et al., 2005). Hence, we tentatively suggest that the relation between disorganized attachment and New Age orientation may be mediated by a propensity to enter dissociative–absorbing states. Similarly, it may be that disorganization is over-represented in members of traditional religions who undergo mind-altering experiences (e.g., mystical or “trance” states) and that dissociation–absorption also mediates this presumed link.

Regarding preoccupation, in a pilot study of 6-year-olds, Main (1991) reported indices of difficulties understanding the privacy of thought (cf. telepathy) as well as belief in nontheistic paranormal phenomena in ambivalent children (i.e., the conceptual counterpart of preoccupied adults). Also, there are notable resemblances between New Age phenomena and preoccupied speech in the AAI (e.g., the use of psychobabble). In fact, the expressions of some of the popular psychology literature associated with the New Age (e.g., on toxic parenting, dysfunctional families) have been directly echoed in the transcripts of some preoccupied interviewees (Main et al., 2003). Hence, besides being receptive to the paranormal beliefs and difficulties understanding the privacy of thought, the New Age movement may allow the preoccupied adult to directly express his or her preoccupation with parental failings. Just as experiences from inconsistent and role-reversing parenting lead to preoccupation with attachment, the New Age movement is hypothesized to attract preoccupied individuals by sanctioning their beliefs and encouraging their expression of preoccupation.

Methodological Considerations, Suggestions for Future Research, and Conclusions

Because this study was performed in a particular, relatively homogeneous cultural context, the generalizability of the findings, especially those regarding the New Age movement (see also Footnote 2), is open to question. Although Sweden is presently a largely secular country (e.g., Stark et al., 2005), the religious–spiritual milieu has been largely dominated by Lutheran Protestantism for more than 5 centuries. Therefore, the New Age movement could be assumed to be more culturally disconnected in this country than it is in countries marked by a higher degree of cultural heterogeneity (e.g., the United States, the United Kingdom). If that were the case, deviance from cultural norms could be an alternative explanation for the relations obtained between New Age orientation and disorganized and preoccupied states. However, recent findings from the World Values Survey indicate that New Age-related beliefs are more common in Sweden than in almost any other Western country, including the United Kingdom and the United States (Houtman & Aupers, in press). Nevertheless, it remains to be seen whether the endorsement of New Age-related beliefs–activities will also relate to disorganization and preoccupation in subcultures (e.g., spiritual communities) in which New Age-related beliefs and activities are normative as well as successfully transferred from parents to offspring. Relatedly, the specificity of the association between New Age orientation and disorganized and preoccupied states is unknown. It could be that more or

less any countercultural beliefs and activities are related to these same attachment states. Needless to say, future studies should address both the generalizability and specificity of the findings presented here.

Although the direction of effects is unknown given the cross-sectional design, the associations between estimated experiences with insensitive parents and religiosity, in conjunction with the general lack of relations between an insecure state of mind and religiosity, could suggest that religion is an arena in which the individual may mentally integrate and reconcile past experiences. Hence, even though these past experiences have been adverse, the individual would be able to coherently process information with respect to those adversities. This interpretation would also help to clarify conceptually why previous studies on self-reported attachment have shown reports of insensitive parenting and insecure romantic attachment to predict increased religiosity over time (longitudinal compensation) and secure romantic attachment to be linked to higher religiosity at a given time (concurrent correspondence; see Kirkpatrick, 2005, for a review). This interpretation would make theoretical sense if the individual's perceived relationship with God actually functions as a compensatory attachment relationship. It would also be theologically plausible, given the portrayal of God as benevolent, loving, forgiving, and in possession of other sensitivity-related attributes (see Granqvist & Kirkpatrick, in press; Kirkpatrick, 2005). In attachment terms, some aspect(s) of religiosity would in that case help promote some degree of earned security (Main et al., 2003). This hypothesis cannot be meaningfully tested in the current sample because of too few participants meeting the earned security criteria laid out in the AAI coding manual.

Although an earned security hypothesis warrants further investigation, it is also possible that the general absence of relations between state of mind and religiosity resulted from the mode of measuring the latter (i.e., self-reports). It is not an unusual finding that AAI-assessed state of mind fails to predict self-reports (e.g., of romantic attachment) yet at the same time successfully predicts theoretically relevant behaviors (e.g., sensitivity in relation to offspring; van IJzendoorn, 1995). Indeed, the speech of individuals classified as dismissing in the AAI system is characterized by idealization of parents. When asked about God, dismissing participants might provide similarly idealized representations (e.g., loving and caring, in the absence of episodic support). To evaluate this hypothesis vis-à-vis the earned security hypothesis, future studies should use implicit assessments of religiosity that are guarded against defensive responding.

The shortcomings resulting from the cross-sectional design are especially problematic for the analyses of the age at which religious change occurred. It remains for future prospective studies to estimate the true direction of the relation between attachment experiences and the timing of religious changes. In general, however, results from two sets of studies deem it unlikely that the results would be a design artifact or that the causal direction should be reversed. 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, recent experiments have indicated that attachment may act as a causal agent in people's motivation to experience communion with God. More specifically, participants primed with attachment-related separations increased

more in their wish to be close to God from pre- to postpriming, compared with control participants (Birgegard & Granqvist, 2004). Hence, in combination, these studies show that attachment does predict religious changes and that religious change can be caused by experimental attachment activation.

Another limitation is that the current study used a sample of convenience (i.e., different religion- and spirituality-relevant groups), making population inferences uncertain. However, results from the studies on attachment and religion-spirituality form a coherent whole, regardless of the ages, denominations, gender distributions, and nationalities of the samples studied (see Granqvist & Kirkpatrick, in press). Nevertheless, future studies conducted in relatively secular countries should use a more controlled recruitment strategy. A final limitation is the relatively low reliability of the father rejection and unresolved scale score ratings. Note, however, that coders discussed discrepancies and came to a joint decision. Also, low reliability is likely to have attenuated, rather than inflated, relations with religiosity-spirituality.

To conclude, the hypotheses of social-mental model correspondence and emotional compensation have been further corroborated with developmentally validated, independent estimates of attachment. More generally, the findings presented can serve an important integrative function for a developmental psychology of religion. For example, the patterns correspond remarkably well to James's (1902) characterization of two religious profiles, the religion of the healthy minded (correspondence) and of the sick soul (compensation). In addition to showing these resemblances to James's descriptions, developmental psychologists of religion are encouraged to consider attachment experiences with parents as potentially important predisposing factors in the development of these profiles, presuming that future prospective studies support the hypothesized direction of relations between attachment and religiosity-spirituality. Seen from the vantage point of attachment theory, the results also are promising in that they point to a possible new area in which research may be conducted with the potential of increased understanding of the factors associated with the development of earned security.

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