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SEX ABUSE 2006; 18; 289

DOI: 10.1177/107906320601800307

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Sexual Offenders' State-of-Mind Regarding Childhood Attachment: A Controlled Investigation

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Published online: 27 July 2006
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Abstract Attachment experiences have been regarded as significant by researchers and clinicians attempting to explain the etiology of sexual offending. Although initial studies have revealed some promising evidence, there are a number of theoretical and methodological problems with this preliminary body of work. While addressing these limitations, the goal of the present study was to investigate state-of-mind regarding childhood attachment among subtypes of sexual offenders, comparing them to both a sample of nonsexual offenders and to the documented patterns of nonoffenders. Sixty-one sexual offenders (extrafamilial child molesters, incest offenders, and rapists) and 40 nonsexual offenders (violent and nonviolent) were administered the "Adult Attachment Interview." Results indicated that the majority of sexual offenders were insecure, representing a marked difference from normative samples. Although insecurity of attachment was common to all groups of offenders, there were important differences in regard to the specific type of insecurity. Most notable were the child molesters, who were significantly more likely to be Preoccupied. Rapists, violent offenders, and, to a lesser degree, incest offenders were more likely to be Dismissing. Although still most likely to be Dismissing, nonviolent offenders were comparatively more Secure.

Keywords Sexual offenders · Attachment · Adult Attachment Interview

Most individuals working with sexual offenders agree that sexual offending is a multi-faceted phenomenon that cannot be fully explained by any one available theory. A variety of perspectives have been investigated over the past 40 years including biological underpinnings (Lalumiere, Harris, Quinsey, & Rice, 2005; Moyer, 1976), deviant sexual fantasies (Wright & Schneider, 1997), sociocultural influences (Marshall & Eccles, 1991), cognitive

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processes (Barbaree, 1991), and developmental experiences (Keenan & Ward, 2003; Marshall & Barbaree, 1990). More recently, theorizing and research efforts have been directed to attachment as a salient feature in the etiology of sexual assault (Marshall, 1989, 1993; Smallbone & Dadds, 1998; Ward, Hudson, & Marshall, 1996; Ward, Hudson, & McCormack, 1997; Ward, Hudson, Marshall, & Siegert, 1995). It has been argued that the failure of sexual offenders to develop secure attachment bonds in childhood, coupled with a series of other deficits, results in a failure to learn interpersonal and other skills necessary to achieve intimacy with adults (Marshall, 1989). These difficulties may then be related to sexual offenders seeking intimacy in sexually inappropriate ways (Marshall, 1989, 1993).

Attachment theory was developed by Bowlby (1969, 1973, 1980), refined by Ainsworth (1989), and further elaborated by Main (1991). An attachment is "an affectional tie in which one individual takes another as a protective figure, finding increased security in their presence, missing them in their absence, and seeking them as a haven in times of alarm (Main, 1996). If attachment bonds are secure, children acquire the necessary skills to establish close relationships and grow to desire intimacy with others. If these bonds are insecure children do not acquire the necessary skills and may grow to fear intimacy with other individuals or to seek intimacy in maladaptive ways (Bowlby, 1969, 1973). Either way, attachment relationships in infancy are said to provide a template for future relationships with others (Ainsworth, 1989; Bowlby, 1969, 1973, 1980). That is, from attachment relationships, we develop expectations or "internal working models" about our own role and the accessibility and reliability of others in relationships (Alexander, 1992).

Attachment theory has been supported by a great deal of research since first introduced by Bowlby (1969, 1993). A major contribution has been Ainsworth's fivefold classification system of attachment which was initially developed for children based on the "Strange Situation" (Ainsworth, 1989). The five patterns, into which all children can be classified, are as follows: (1) Secure (55–65%): develops when the parent is sensitive and responsive to the child's needs, which results in high self-esteem and self-efficacy in relationships, (2) Avoidant (20–25%): develops when the caregiver is typically detached and unresponsive to the child's needs, which results in emotional detachment, empathy deficits, and hostile behaviour in the child; (3) Resistant/ Ambivalent (10–15%): caregiver is inconsistent and often overinvolved or role-reversing, which results in children being impulsive, tense, passive and attention-seeking, (4) Disoriented/Disorganized (15–20%): develops from fearful experiences related to the caregiver, namely, abuse, separation or loss, which results in the child displaying disorganized and/or disoriented behaviour in the caregiver's presence; and (5) Cannot Classify (rare): does not fit clearly fit into the other categories.

The extensive examination of these attachment patterns has included numerous international studies, validating both the existence of these separate groups, their stability over time, and that they are robust against cross-cultural and socioeconomic variations (see van IJzendoorn, 1995 for review). The research on which these conclusions are based are correlational and experimental, longitudinal and cross-sectional, involve both normal and high-risk samples and apply to fathers and day-care providers as well as to mothers (Belsky, 1999; Belsky, Rosenberger, & Crnic, 1995). The Adult Attachment Interview (AAI- George, Kaplan, & Main, 1996), utilized in the present study, is based on this childhood classification system.

Like many areas in psychological research, attachment theory has been applied to the etiology of sexual offending. Marshall's (1989, 1993) work in the area first drew upon the theory of attachment, intimacy research, and the construct of emotional loneliness. He has argued that the failure of sexual offenders to develop secure attachment bonds in childhood results in a failure to learn the interpersonal skills and self-confidence necessary to achieve

intimacy with other adults. As a result of this inability to establish meaningful emotional relationships, sexual offenders suffer from emotional loneliness, which in turn, is said to lead to hostile attitudes, aggressive behaviour, and the attempt to meet intimacy needs in maladaptive ways. They may, for instance, confuse sexual activity with intimacy and victimize others in order to “desperately, but vainly seek intimacy through sex” (Marshall, 1989, p. 498).

In support of the role of loneliness in the etiology of sexual offending, several studies have found that sexual offenders are more deficient in intimacy and more lonely than both their nonsexual offender counterparts and community samples (see Mulloy & Marshall, 1999 for a review). Further, a common finding in many of the studies examining intimacy skills deficits, loneliness, and fear of intimacy is that child molesters tend to stand out as being distinctive from other groups of sexual offenders (Marshall, Barbaree, & Fernandez, 1995; Ward, McCormack, & Hudson, 1997). For example, Ward et al. (1997) found that extrafamilial child molesters were more sensitive to rejection than violent nonsexual offenders and rapists and reported a greater fear of intimacy. Conversely, rapists tended to perceive their partners more negatively and were more hostile in their attitudes. Ward et al. (1997) speculated that extrafamilial child molesters presented this way due to a desire for, but inability in attaining, intimacy. They further argued that rapists were devaluing of the importance of intimacy and were driven by a desire to maintain a sense of autonomy from emotionally based relationships. These findings lend support to the notion of diverse attachment styles among these particular groups of sexual offenders.

With reference to attachment specifically, there have been several studies reported in the literature on sexual offending. In a study utilizing the Relationships Style Questionnaire (RSQ) and the Relationships Questionnaire (RQ), Ward et al. (1996) observed that the majority of sexual offenders were insecurely oriented to adult intimate relationships, but that this was true for all groups of offenders and therefore likely to be a general vulnerability factor rather than specific to sex offenders. Depending on which instrument was used, Ward et al. (1996) did observe some significant differences across groups. For example, with reference to the preoccupied style of attachment, child molesters were not significantly different from rapists, but more preoccupied than both violent and nonviolent nonsexual offenders. On the dismissing dimension, rapists and violent offenders were indiscriminable from each other, but scored significantly higher than the child molesters and nonviolent offenders. In keeping with the results of Ward et al. (1996), Abracen, Looman, Di Fazio, Kelly, and Stirpe (2005) observed that child molesters were more likely to be preoccupied in their attachment style than rapists as measured by the RSQ.

While Ward et al. (1996) emphasize the connection between adult romantic attachment style and the behavioural strategies employed by sexual offenders, Smallbone and Dadds (1998) highlight the link between attachment style and the relationship context within which the sexual offending takes place. In the study by Smallbone and Dadds (1998), which involved the administration of several psychometric instruments to groups consisting of sexual offenders, nonsexual offenders and nonoffenders, results suggested that insecure childhood attachments may be related to offending behaviour generally, and that certain combinations of childhood attachment experiences may relate more specifically to different kinds of sexual offending. For example, incest offenders reported anxious and avoidant relationships with their mothers, while stranger rapists had particularly problematic relationships with their fathers.

Sawle and Kear-Colwell (2001) administered several questionnaires to groups consisting of pedophiles, sexual abuse survivors, and university students. Results indicated that the sexual abuse survivors and university students reported more security of attachment than

the pedophiles. In contrast to Ward et al. (1996), these authors observed that pedophiles experienced a pattern of insecure attachment in keeping with individuals who are dismissive in their relationships.

All of the studies noted above with reference to attachment are retrospective and based on self-report instruments, and much less frequently, on brief interviews. It is widely held that the essence of attachment cannot adequately be captured by questionnaire responses (Goldberg, Muir, & Kerr, 1995). In fact, these measures (e.g., RSQ, RQ) have been criticized for their poor ability to circumvent the defensiveness and distortion known to be particularly common among sexual offenders (Marshall, 1996; Murphy, 1989), and nonoffending adults when reflecting on insecure childhood attachments (Main, 1991). That is, insecurely attached adults generally, and sexual offenders specifically, may be particularly poor at identifying their attachment styles based on these instruments.

In contrast to these self-report measures, the Adult Attachment Interview (AAI-George et al., 1996) has been identified as an effective, psychometrically sound instrument with which to measure an individual's internal working models or state-of-mind regarding childhood attachment (Bakermans-Kranenburg & Van IJzendoorn, 1993; Benoit & Parker, 1994; Steele & Steele, 1994). The potentially detrimental influences of poor recall, social desirability, and naïve lying associated with self-report measures of childhood attachment are substantially bypassed with the AAI. The AAI does not make classifications based primarily on reported events in childhood, but rather on the thoughtfulness and coherency with which the adult is able to describe and evaluate these childhood experiences and their effects. That is, the AAI examines the way experiences are represented (i.e., the state of mind of the person) not the experiences themselves. The AAI state-of-mind classifications are stable across five year periods, within 77% to 90% (Bakermans-Kranenburg & Van IJzendoorn, 1993; Benoit & Parker, 1994; Sagi et al., 1994). Another study found that the individual's Strange Situation response at one year of age and that same individual's response to the AAI sixteen to twenty years later was highly correlated, being about 80% (Rothbard & Shaver, 1994). Meta-analytic work has also supported the use of the AAI (van IJzendoorn, 1995). In short, the AAI is a well validated measure of attachment which, although time consuming, offers significant benefits over the use of paper and pencil tests.

The AAI results in five classifications of state-of-mind regarding childhood attachment, which parallel those derived from Ainsworth's system (1989), although in some cases the terminology is different between childhood and adult classification. Specifically, Secure, Dismissing ("Avoidant" as per Ainsworth), Preoccupied ("Resistant/Ambivalent" as per Ainsworth), Unresolved ("Disoriented/Disorganized" as per Ainsworth) and Cannot Classify. To reiterate, individuals with a Secure attachment style value relationships and grow to desire intimacy with others. Individuals classified as Dismissing tend to be devaluing of relationships. Such individuals may idealize relationships from their past but are cut off from related feelings or dismiss their significance. They may also be derogating of attachment in that they demonstrate cool, contemptuous dismissal of attachment relationships. With reference to Preoccupied persons, these individuals are described as confused and unobjective. They may seem passive, vague or angry, conflicted, and unconvincingly analytical. The Unresolved category deals specifically with loss and abuse, and the Cannot Classify category is used when an individual does not fit clearly into any of the other classifications.

In the present investigation five groups of subjects were used: Extrafamilial child molesters (child molesters), intrafamilial child molesters (incest offenders) and sexual offenders against adult females (rapists). Two nonsexual comparison groups were employed consisting of violent and non-violent offender groups. As well, groups were compared with reference to normative data on the AAI.

It was hypothesized that sexual offenders would more likely demonstrate an insecure state-of-mind regarding attachment than normative samples. As well, it was hypothesized that sexual offenders would demonstrate greater levels of insecure attachment when compared to nonsexual offender comparison groups. It was also predicted that child molesters and incest offenders would more likely be Preoccupied in their state-of-mind regarding attachment than other groups, and that rapists would more likely be Dismissing. These hypotheses are based in part upon the research cited above as well as on theoretical arguments which have been made with reference to patterns of attachment in different groups of offenders.

Method

Participants

Sixty-one adult male sexual offenders were recruited on a voluntary basis from either the federal or provincial correctional systems within the Ontario region of Canada. Subjects were either incarcerated or on some form of conditional release in the community when testing took place. Wilson (1999) demonstrated that sexual offenders, drawn from the same provincial and federal populations as those used in the current investigation, were not significantly different from one another in terms of demographic variables, number of victims, victim gender, victim age, social desirability, naïve lying, and intelligence.

Three groups of sexual offenders were identified, based on their most recent offence: twenty-two extrafamilial child molesters (henceforth referred to as child molesters), 19 intrafamilial child molesters (henceforth referred to as incest offenders) and 20 sexual offenders against adult females (henceforth referred to as rapists). Child molesters were offenders convicted of a sexual offence against an unrelated person under the age of 16 (age of victim, $M = 10.41$, $SD = 3.31$). Incest offenders were convicted of a sexual offence against a related person (either biological or step) under the age of 16 (age of victim, $M = 9.32$, $SD = 3.01$). Rapists were offenders convicted of a sexual offence against an adult female over the age of 16 (age of victim, $M = 24.9$, $SD = 7.29$). Offenders with convictions for offences falling into two categories (e.g., child molestation and incest) were excluded from this investigation.

Two groups of comparison subjects consisting of violent nonsexual offenders ($n = 20$) and non-violent offenders ($n = 20$) were employed. Violent offenders were offenders whose most recent conviction was violent including: assault causing bodily harm, assault, armed robbery, forcible confinement, and utter death threats. Nonviolent offenders were offenders whose most recent conviction was nonviolent in nature, and who had no previous convictions for violence. Offences for the nonviolent group included: theft, break and enter, possession of property obtained by crime, fraud, uttering forged documents, trafficking or possession of narcotics, and impaired or dangerous driving. None of the comparison subjects had a previous conviction for a sexual offence or a known history of a sexually motivated offence.

Sample size was limited by the practical limitations of the AAI. The AAI requires approximately 12 to 15 hours to administer, transcribe and code per subject.

Measures

Demographic and offence variables

Demographic information including age, education, and marital status were collected prior to the commencement of the interview protocol along with offence specific information.

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This information was obtained directly from the participants. None of the sexual offenders employed in the current investigation were in denial and all sexual offenders employed in the current investigation had attended (or were currently attending) treatment related to their history of sexual offending. Self-report data was cross-referenced with file information.

“Adult Attachment Interview” (AAI, George et al., 1996). The AAI is a structured, semi-clinical 20-question interview designed to elicit the individual’s account of his childhood attachment experiences, together with his evaluations of the effects of those experiences on present functioning. It explores the quality of these childhood relationships and the memories that might justify them. The AAI is transcribed verbatim, that is, all hesitations are meticulously recorded and only the verbatim transcript is used in the analysis of the interview (Main, 1994). The first author, who was the interviewer for all subjects, was fully trained on the administration and coding of the AAI. Evidence of certification is available upon request.

The AAI yields three major “organized” state-of-mind classifications and two other classifications, which involve either unresolved or difficult to classify features. The patterns of attachment for adults are Secure (45–55% of normative samples), Preoccupied (10–15% of normative samples), Dismissing (20–35% of normative samples), Unresolved with respect to loss or abuse (15–20% of normative samples) and Cannot Classify (rare). Unresolved transcripts typically involve descriptions of loss or abuse that demonstrate striking lapses in the monitoring of reasoning and discourse (e.g., disorientation with reference to time and space). Cannot classify transcripts typically involve a striking or unusual mixture of mental states such that no single organized state or strategy is completely obvious (Hesse, 1996). Individuals categorized into one of the two disorganized patterns of attachment can always be assigned to a best fitting “organized” state-of-mind classification as well. Although classifications based on either the three or the five category classification systems are possible, focus is given to the classification system based upon the three organized patterns of attachment as this is the most informative. That is, all individuals are believed to have one over-riding organized state-of-mind regarding childhood attachment.

The AAI has been found to be unrelated to measures of intelligence (Bakermans-Kranenburg & Van IJzendoorn, 1993; Sagi et al., 1994; Steele & Steele, 1994), to both long- and short-term memory (Bakermans-Kranenburg & Van IJzendoorn, 1993; Sagi et al., 1994), to discourse patterns when individuals are interviewed on other topics (George et al., 1996), and to interviewer effects (Bakermans-Kranenburg & Van IJzendoorn, 1993; Sagi et al., 1994). Further, an important feature of the AAI, particularly in its application with offenders, is that the state-of-mind classifications attained are unrelated to social desirability (Bakermans-Kranenburg & Van IJzendoorn, 1993).

Procedure

Potential subjects were approached either on their living units or while attending groups. A brief presentation was made to all subjects who were informed that no aspect of their treatment would be affected by their decision to participate or to decline participation. All subjects who agreed to participate signed a detailed consent form.

The primary investigator conducted all interviews. The interviews were audiorecoded for later transcription utilizing the Main (1994) guidelines. Information that could be used to establish a participant’s group status (i.e., incest offender, child molester, rapist or nonsexual violent or nonviolent offender) was deleted from the transcripts prior to coding.

Results

Demographic information

All sexual offender and comparison groups were compared to one another on a variety of demographic variables including age and marital status. With reference to age, the means and standard deviations of the participant groups were as follows: child molesters ($M = 42.77$, $SD = 14.19$), incest offenders ($M = 40.89$, $SD = 9.91$), rapists ($M = 31.65$, $SD = 9.18$), violent offenders ($M = 30.53$, $SD = 11.80$), and non-violent offenders ($M = 29.48$, $SD = 6.48$). An ANOVA was conducted and revealed significant group differences $F(4,100) = 7.09$, $p < .001$. Post hoc testing using Tukey HSD indicated that child molesters were significantly older than rapists (11.12, $p < .01$), violent offenders (12.25, $p < .01$) and non-violent offenders (13.30, $p < .001$), and incest offenders were significantly older than non-violent offenders (11.42, $p < .01$). ANOVA data with reference to education level indicated that there were no significant differences between groups.

With reference to marital status, 45.5% of child molesters, 94.7% of incest offenders, 60% of rapists, 63.2% of violent comparison subjects and 33.3% of non-violent comparison subjects were married/common law or divorced. Differences between groups on marital status were significant using chi square analysis, $\chi^2 = 17.48$, $df = 4$, $p < .01$. An examination of standardized residuals indicated that incest offenders were more likely than other groups to be married/common-law or divorced and non-violent offenders were more likely than other groups to be never married/common law.

Offence characteristics

All groups were compared as to whether or not they had a previous conviction. The results were as follows: 59.1% of child molesters, 31.6% of incest offenders, 45.0% of rapists, 78.9% of violent offenders, and 71.4% of nonviolent offenders had previous convictions. The results of the chi-square test revealed that differences between groups approached significance, $\chi^2 = 11.76$, $df = 4$, $p < .02$.

All groups were also compared as to the mean number of previous convictions. The means and standard deviations were as follows: child molesters ($M = 1.25$, $SD = 1.48$), incest offenders ($M = 0.58$, $SD = 1.02$), rapists ($M = 1.63$, $SD = 3.78$), violent offenders ($M = 4.82$, $SD = 5.51$) and nonviolent offenders ($M = 6.73$, $SD = 16.01$). Group differences were not significant, $F(4, 76) = 2.12$, $p < .09$.

Type of previous offence was categorized as sexual, violent, and nonviolent. By definition, violent and nonviolent offenders did not have previous convictions for sexual offences, and nonviolent offenders did not have previous convictions for violent offences. Group differences between violent and nonviolent offenders were not tested, however they were as follows: 66.7% of violent offenders who had a previous conviction had a violent offence conviction and 33.3% of them that had a previous conviction had a conviction for a nonviolent offence. Again, as previously noted, all fifteen (100%) of the nonviolent offenders who had a previous conviction had a nonviolent offence conviction.

The three sexual offender groups were compared as to the type of previous offence (i.e., sexual, violent, and nonviolent). Of those who had a previous offence, the breakdown of offence type was as follows: child molesters (69.2% sexual, 7.7% violent, and 23.1% nonviolent); incest offenders (66.7% sexual, 33.3% violent, and 0% nonviolent); and rapists (22.2% sexual, 33.3% violent, and 44.4% nonviolent). The chi-square test revealed no significant differences between groups, $\chi^2 = 7.46$, $df = 4$, $p < .11$. Offenders with previous

convictions for offences falling into two categories (e.g., rape and child molestation) were excluded from this investigation.

The average total number of victims (most recent and previous) for the sexual offender groups was compared. The means and standard deviations for the groups were as follows: child molesters ($M = 3.68$, $SD = 2.93$), incest offenders ($M = 1.58$, $SD = 0.90$), and rapists ($M = 1.35$, $SD = 0.81$). An ANOVA was conducted to test differences and was significant, $F(2, 60) = 9.74$, $p < .001$. Post-hoc tests were conducted to isolate differences (i.e., Tukey HSD). The average number of victims was significantly higher for child molesters than for incest offenders (2.10, $p < .01$) and rapists (2.33, $p < .001$).

Sexual offenders state-of mind regarding childhood attachment

As previously noted, the AAI system yields both three major state-of-mind classifications and two other classifications, which involve either unresolved or difficult to classify features. When analyzing AAI data, two separate analyses are customarily conducted; one in which the Unresolved and Cannot Classify classifications are considered as separate categories, and another in which all transcripts are collapsed to their major Secure, Dismissing, or Preoccupied state-of-mind classifications. This involves collapsing the Unresolved and Cannot Classify classifications depending on how predominant the features were.

Comparisons between sexual offenders and normative data

The first hypothesis of the present study was that sexual offenders would evidence more insecure states-of-mind regarding attachment than normative samples. That is, they would be over-represented in the Dismissing and Preoccupied state-of-mind classifications.

Table 1 presents the data comparing the sexual offender groups to the normative data reported in the literature for the five AAI classifications. The normative data was not collected for this study as the attachment styles of the general adult population have been assessed and documented, and therefore, statistical analyses were not conducted on this dataset.

As can be seen in Table 1, incest offenders and rapists had a higher percentage of Dismissing classifications than the general population, with the child molesters lowering the average. Similarly, incest offenders and rapists had a higher percentage of Unresolved state-of-mind classifications than the general population, with the child molesters again lowering the average. The distribution of Dismissing and Unresolved state-of-mind classifications

Table 1 Sexual offender groups and normative data for five AAI state-of-mind classifications (percentages)

Group	Dismissing	Secure	Preoccupied	Unresolved	Cannot classify
Child molesters ($n = 22$)	13.6	9.1	40.9	9.1	27.3
Incest offenders ($n = 19$)	42.1	10.5	15.8	26.3	5.3
Rapists ($n = 20$)	45.0	10.0	5.0	20.0	20.0
Total sex offenders ($n = 61$)	32.8	9.8	21.3	18.0	18.0
Normative data ^a ($n = 2000 +$)	20–35	45–55	10–15	15–20	rare

^abased on the meta-analysis by van IJzendoorn and Bakermans-Kranenburg (1996).

among sexual offenders as a group is relatively similar to those of the general population when all five AAI classifications are considered.

As expected, unlike the general population, which has a high percentage of Secure state-of-mind classifications, Secure classifications were rare in child molesters, incest offenders, rapists, and sexual offenders when considered as a group (under 10% when all classifications were considered).

The percentage of Preoccupied state-of-mind classifications was higher among the sexual offenders as a group than the general population. This was due to one group in particular, the child molesters with close to forty-one percent of them judged Preoccupied in their state-of-mind (when all five categories were considered). Incest offenders had a similar Preoccupied distribution to the general population, while rapists were under-represented in the Preoccupied state-of-mind classification when compared to the general population. The Cannot Classify category, which is rare in normative samples, was fairly high (18.0% when all classifications were considered) in sexual offenders as a group, and particularly for child molesters and rapists.

When only the three “organized” AAI classifications were considered, sexual offenders differed dramatically from the general population. Compared to the general population in which the majority are judged Secure (57–62%, when only organized categories are considered), only approximately 13% of sexual offenders were Secure in their state-of-mind regarding attachment. Approximately double the number of sexual offenders (52.5%) were judged Dismissing in their state-of-mind regarding attachment compared to the general population (22–28%, when only organized categories are considered). Finally, approximately double the number of sexual offenders (34.4%) were judged Preoccupied in their state-of-mind regarding attachment compared to the general population (15–18%, when only organized categories are considered).

Comparisons between sexual offenders and comparison groups

This section addresses the hypothesis that insecure attachment would be a factor in criminality in general, but that sexual offenders would evidence more insecure states-of-mind regarding attachment than their nonsexual offender counterparts. It also addresses the hypothesis that child molesters, incest offenders, and rapists would have diverse states-of-mind regarding attachment. Specifically, that child molesters and incest offenders would be more likely to have a Preoccupied state-of-mind, while rapists would be more likely to have a Dismissing state-of-mind.

Child molesters, incest offenders, rapists, and both the nonviolent and violent comparison groups were compared as to their AAI state-of-mind classification when all five categories were considered. Analysis of this data resulted in no significant difference between groups, $\chi^2 = 25.05$, $df = 16$, $p < .07$.

Table 2 presents the results of the data when only the three “organized” AAI classification categories were considered. Analysis of this data resulted in significant differences between groups, $\chi^2 = 26.59$, $df = 8$, $p < .001$. An examination of the residuals and adjusted standardized residuals indicated the following: Child molesters (63.6%) were far more likely than all other groups to have a Preoccupied state-of-mind regarding attachment. Violent offenders, rapists, and to a lesser degree, incest offenders, were more likely to have a Dismissing state-of-mind regarding attachment. Finally, although still most likely to be judged Dismissing, nonviolent offenders (28.6%) were more likely than other groups to have a Secure state-of-mind regarding attachment.

Table 2 Three AAI state-of-mind with respect to attachment classifications (percentages) for child molesters, incest offenders, rapists, nonviolent offenders, and violent offenders and chi-square test results

Offender group	Dismissing	Secure	Preoccupied
Child molesters	18.2	18.2	63.6
Residuals	–8.4	.5	7.9
Adj. std. residuals (<i>n</i> = 22)	–4.1	.3	4.3
Incest	68.4	10.5	21.1
Residuals	2.3	–1.0	–1.3
Adj. std. residuals (<i>n</i> = 19)	1.2	–0.7	–0.7
Rapists	75.0	10.0	15.0
Residuals	3.7	–1.2	–2.5
Adj. std. residuals (<i>n</i> = 20)	1.9	–0.8	–1.4
Nonviolent	47.6	28.6	23.8
Residuals	–1.9	2.7	–0.8
Adj. std. residuals (<i>n</i> = 21)	–0.9	1.8	–0.5
Violent	78.9	10.5	10.5
Residuals	4.3	–1.0	–3.3
Adj. std. residuals (<i>n</i> = 19)	2.2	–0.7	–1.9
Total (<i>N</i> = 101)	56.4	15.8	27.7

$\chi^2 = 26.59$, $df = 8$, $p < .001$

Discussion

A number of important findings emerged from the current study. Results indicated that the majority of sexual offenders were insecure in their state-of-mind regarding attachment, representing a marked difference from normative samples. Although insecurity of attachment was common to all groups of offenders, there were important differences in regard to the type of insecurity. Most notable were the child molesters, who were much more likely to be Preoccupied. Violent offenders, rapists, and to a lesser degree, incest offenders were more likely to be Dismissing. Although still most likely to have been judged Dismissing, nonviolent offenders were comparatively more likely than the other groups to have a Secure state-of-mind regarding attachment.

The hypothesis that sexual offenders would evidence a more insecure state-of-mind regarding attachment than normative samples was supported. Whether the three organized or the full five AAI state-of-mind classifications were considered, sexual offenders were far less likely than normative samples to be Secure. Specifically, approximately 16% of sexual offenders were rated Secure versus 57–62% when the three organized classifications were considered, and less than 10% of sexual offenders were Secure compared to 45–55% of normative samples when all five classifications were considered.

In childhood, insecure attachments are said to be marked by coercive and noncompliant strategies (Bowlby, 1969, 1973, 1980). These children expect that others will not be able to provide them with what they require, and therefore resort to coercion or withdrawal in an attempt to have their needs met. Insecure attachments are said to result in either a fear of intimacy, a devaluing of intimacy, or to seeking intimacy in maladaptive ways (Bowlby, 1969, 1973, 1980). In the case of sexual offenders, it has been argued that insecure attachments lead them to seek intimacy through sexually offending (Ward et al., 1995, 1996).

The second major hypothesis was that insecure states-of-mind regarding attachment were likely to be a factor in criminality in general, but that given the specific difficulties that sexual offenders appear to have interpersonally, they would evidence more insecurity than their nonsexual offender counterparts. This hypothesis was partially supported. Most offenders (sexual and violent) were insecurely attached, replicating previous findings (Smallbone & Dadds, 1998; Ward et al., 1996). Nonviolent offenders, although still most likely to be insecure, were comparatively the most secure group.

An important finding in the current study was that the type of insecurity differed among groups. When all five AAI classifications were considered, there were no significant differences. However, differences emerged when the three organized states-of-mind classifications were considered. Child molesters were far more likely than all the other groups to have a Preoccupied state-of-mind regarding attachment, supporting the specific hypothesis made regarding this group. Rapists, violent offenders, and to a lesser extent, incest offenders, were more likely to have a Dismissing state-of-mind regarding attachment. These findings provide support for Ward et al's (1995) speculations that child molesters are more likely to be Preoccupied while rapists are more likely to be Dismissing. Together they provide evidence for the specificity of insecure attachment with regard to sexual offending, over and above its possibly more general influence on criminality.

This conclusion applies particularly to child molesters who also report a greater fear of intimacy with adults when compared to rapists and nonsexual offenders (Marshall, 1989; Ward et al., 1997), and also a greater fear of rejection (Ward et al., 1997). Fear of intimacy and rejection are common attributes of individuals with Preoccupied attachment styles. These individuals desire intimacy but attainment is highly problematic. The internal working models of Preoccupied individuals include expectations that they are unworthy or incapable of receiving love or support and that others are inaccessible (Alexander, 1992; Bowlby, 1973). As a result of this working model, child molesters may choose to be closer to children rather than adults as they are perceived as less threatening. The finding of Lee et al. (2001), that social-sexual incompetence was a specific feature of pedophilia is consistent with these speculations.

Marshall's (1989) description of the sexual offender who confuses sexual activity with intimacy and victimizes others in order to "desperately, but vainly seek intimacy through sex" (p. 498) appears to aptly describe the Preoccupied child molester. Child molesters have been known to describe themselves as being "in love" with a child and have portrayed the victim-assailant relationship as mutual (Ward et al., 1995, 1997). These beliefs reflect not only cognitive distortions about children's abilities to consent to sexual activity, but also the offenders' attempt to infer intimacy where it does not exist.

Conversely rapists, like dismissively attached individuals, tend to be more hostile in their interactions with others (Knight & Prentky, 1990), have greater intimacy deficits (Bumby & Hansen, 1997), and are more devaluing of intimacy (Ward et al. 1997). The features associated with a Dismissing internal working model include the view that others are untrustworthy, uncaring and unresponsive. The overriding goal of a Dismissing individual would be to remain invulnerable to these negative feelings, and interpersonal strategies would involve displaying hostility and aloofness. This, in turn, is likely to lead to dissatisfaction with others, rejection from others, and an avoidance of intimacy.

It is perhaps not surprising, in this regard, that rapists appear to have a similar pattern of attachment as evidenced by violent offenders generally. Similarities between these two groups have been reported elsewhere in the literature, specifically both groups displayed the same patterns of intimacy deficits (Ward et al., 1996). It is reasonable to speculate that rapists

and violent offenders may share a vulnerability towards a Dismissive attachment style, but that rapists also experience additional risk factors which make them prone to committing sexual assault. These data lend support to the idea that there may be a number of pathways to sexual offending.

The hypothesis that incest offenders would most likely be Preoccupied was not supported by this data, as they were more likely to be Dismissing. This was not expected given the previous links made between incest offenders' reports of offending out of a felt need for intimacy and their greater fear of intimacy and rejection (Bumby & Hansen, 1997), all of which are features of a Preoccupied style of attachment. These findings may be explained in the context of Marshall's (1989) description of sexual offenders who appear to have had social contacts and seemingly effective marriages, while actually reporting that these relationships were superficial.

In summary, this study presents the first data using a well validated interview based measure of attachment applied to sexual and nonsexual offender groups. There are, however, a number of limitations. The small sample size may have obscured results, especially in the analyses involving the full set of five state-of-mind classifications. In addition, rapists tend to be a relatively heterogeneous group, but were not subcategorized in the current study. Ward et al. (1995, 1997) have suggested that rape occurring within an established relationship and stranger rape may have different underlying attachment characteristics. Finally, while efforts were made to ensure that offender groups were homogeneous, it is possible that offenders of one type managed to contaminate another's group. Wilson (1999) pointed out that incest offenders, in particular, can be difficult to distinguish from heterosexual pedophiles. There was also no way to ensure that the two comparison groups of nonsexual offenders had not committed sexually abusive acts without being detected.

The present findings have implications for the assessment and treatment of sexual offenders. When assessing sexual offenders, identifying their state-of-mind regarding attachment and its associated beliefs and interpersonal strategies, may provide valuable insight into the motivational strategies underlying their offences. As previously argued by Ward et al. (1996) and Smallbone and Dadds (1998), the relationship between attachment and offence variables, independent of offender type, needs to be considered in clinical practice. The intimacy problems, for example, faced by an individual whose offending is characterized by a devaluing of attachment are very different from one who fears rejection and offends in an attempt to cultivate a "relationship" with the victim. Unless appropriate goals related to one's internal working models of relationships are specified, treatment components such as social skills interventions or empathy enhancement may not be maximally effective. Further, therapeutic interventions can be tailored in accordance with the offenders' working models of relationships, providing an opportunity to disconfirm maladaptive beliefs and behaviours.

Despite its limitations, the present study has provided empirical evidence of specificity in state-of-mind regarding attachment among sexual offenders. The results suggest that attachment experiences may place some men at risk for later offending. More specifically, they suggest that these early experiences may contribute to sexual offending within a particular interpersonal context. Although there are clearly differences within groups of sexual offenders, an expected relationship between an individual's choice of victim and his attachment status has been demonstrated. Further research is required, however, the current study represents a contribution in incorporating attachment theory into the etiology of sexual offending and in acknowledging that sexual offending may be constructively understood in terms of the relationship context in which it takes place.

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