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# An Empirically Derived Approach to the Latent Structure of the Adult Attachment Interview: Additional Convergent and Discriminant Validity Evidence

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## Abstract

Building on studies examining the latent structure of attachment-related individual differences as assessed by the Adult Attachment Interview (AAI) via Principal Components Analysis, the current report further explores the validity of four AAI dimensions reported by Haydon, Roisman, and Burt (in press): dismissing states of mind, preoccupied states of mind, and inferred negative experience with maternal and paternal caregivers. Study 1 reports evidence of distinctive cognitive correlates of dismissing v. preoccupied states of mind with reaction time in an attachment Stroop task and the valence of endorsed self-descriptors, respectively. Study 2 replicates prior meta-analytic findings of generally trivial convergence between state of mind dimensions and self-reported avoidance and anxiety (i.e., Roisman, Holland, et al., 2007). Study 3 contrastively demonstrates moderate empirical overlap between inferred experience—but not state of mind—AAI scales and self-reported avoidance and anxiety when the latter were assessed at the level of specific caregivers. Taken together, these findings add to accumulating evidence that an empirically-driven approach to scaling adults on AAI dimensions (Haydon et al., in press; Roisman et al., 2007) aids in identifying theoretically anticipated and distinctive affective, behavioral, and cognitive correlates of dismissing versus preoccupied states of mind.

### Keywords

Adult Attachment Interview; latent structure; Stroop; attachment style; self-report

Research on the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985) has been successful not only with respect to the sheer volume of published studies the measure has generated, but also in terms of the quality of its empirical yield (reviewed extensively in Hesse, 2008). Indeed, with now over 10,000 AAI protocols administered to participants across the world and coded using Main and Goldwyn's (1998) classification system (Bakermans-Kranenburg & van IJzendoorn, 2009), it is more important than ever to examine empirically some of the key assumptions that underlie the standard approach to the assessment of attachment-related individual differences. The present research builds on recent efforts to do so (see Haydon, Roisman, & Burt, in press; Roisman, Fraley, & Belsky,

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2007) by reporting convergent and discriminant validity evidence in relation to an empirically derived approach to the latent structure of the AAI reported by Haydon et al. (in press).

Adult attachment research in the developmental tradition has made extensive use of the AAI in relation to a number of key adaptational domains (Hesse, 2008). This research is built upon two assumptions regarding the latent structure of individual differences in adult attachment. First, developmental psychologists tend to view security in adulthood as a unitary construct ("coherence of mind") that simultaneously involves the capacity to: (a) tell an internally consistent narrative about one's childhood experiences (i.e., to "freely evaluate" early attachment experiences) (b) without becoming emotionally entangled while reflecting on past experiences, as reflected either in active or passive preoccupation. In this standard account, insecurity, by contrast, is conceptualized as taking one of two organized forms. *Dismissing* states of mind are viewed as a defensive distancing approach in which the significance of attachment needs, experiences, or partners is minimized. Such an orientation often takes the form of idealizing childhood experiences and/or closing oneself off from evaluation of attachment experience through lack of memory or derogation. The other form of insecurity—*preoccupation*—is conceptualized as becoming passively or actively caught up while discussing early experiences and demonstrating emotional arousal that interferes with a balanced and autonomous evaluation of one's early childhood experiences. Moreover, an implicit assumption of the standard account is that dismissing and preoccupied states of mind are mutually incompatible/exclusive in the sense that the presence of one attachment orientation is thought to preclude the presence of the other. Indeed, transcripts exhibiting strong characteristics of both dismissing and preoccupied states of mind are designated "cannot classify" in the AAI coding system (Main & Goldwyn, 1998).

This conceptualization of the latent structure of attachment—security contrasted with two mutually exclusive forms of insecurity—in fact serves as the foundation for categorical measures of attachment across the developmental range, including the Strange Situation Procedure (Ainsworth et al., 1978) and the Adult Attachment Interview (Main & Goldwyn, 1998). In fact, even measures designed explicitly to assess attachment-related variation dimensionally (e.g., Waters & Deane's [1985] Attachment Q-set; Kobak's [1993] AAI Q-Sort) have presupposed a latent structure based on contrasting security with insecurity, a view that assumes that "security" does not conflate two empirically distinct axes of variation (i.e., low levels of anxiety and low levels of avoidance), that might well be only modestly correlated.

Although the standard conceptualization of attachment-related individual differences has clearly been generative (see Cassidy & Shaver, 2008, for a review), a close look at relevant data suggests that this conceptualization may not be representing the data accurately. For example, Fraley and Spieker (2003) demonstrated via Principal Components Analysis (PCA) that the various behavioral indicators typically used to assign infants to attachment categories in the Strange Situation Procedure loaded on two dimensions reflecting variation in attachment-related contact seeking and avoidance (i.e., avoidance, contact maintenance, and proximity seeking scales) and attachment-related anxiety, distress, and conflict (indicated by resistance and disorganization). Said another way, Fraley and Spieker (2003) found no evidence that the Strange Situation actually assesses a unitary dimension of security-insecurity, nor that the two major forms of insecurity are mutually exclusive. Instead, what they found was a latent structure that maps quite well onto the approach that has been used for the last two decades in social and personality psychology to measure attachment-related individual differences in adulthood—one that focuses on attachment-related avoidance (i.e., discomfort associated with reliance on a romantic partner to meet attachment-related needs) and anxiety (i.e., the extent to which individuals worry about the

availability of romantic partners and the adequacy of partners' responses to attachment-related needs).

Similar findings have emerged with respect to the latent structure of adult attachment as assessed with the AAI. Bernier and her colleagues (Bernier, Larose, Boivin, & Soucy, 2004; Larose, Bernier, & Soucy, 2005) were the first to demonstrate that the state of mind dimensions used by AAI coders to inductively classify adults load on two weakly correlated components: dismissing and preoccupied states of mind. Using the full range of state of mind dimensions and a large aggregate sample ($N$ = 504), Roisman, Fraley, and Belsky (2007) used PCA to replicate these results, finding evidence for two weakly correlated axes on which adults vary with respect to attachment-related states of mind: one reflecting the degree to which individuals freely evaluate or defensively discuss their early experiences (i.e., dismissing states of mind: mother idealization, father idealization, coherence of mind, lack of memory, and metacognitive monitoring) and the other reflected in one of two forms of attachment-related preoccupation (i.e., preoccupied states of mind: mother anger, unresolved abuse, father anger, passivity, unresolved loss, fear of loss, and overall derogation scales). Accumulating evidence thus suggests that these two dimensions are relatively orthogonal (i.e., individuals may score anywhere on the two dimensions) rather than being mutually exclusive (i.e., individuals who score relatively high on one dimension must necessarily score relatively low on the other). This finding has been replicated once again (Haydon et al., in press) in an even larger sample ($N$ = 842) with a focus on the latent structure of item-level AAI Q-Sort data, in the process providing evidence that, in addition to relatively orthogonal dismissing and preoccupied states of mind, the AAI captures two weakly correlated dimensions reflecting variation in the extent to which adults report negative (i.e., rejecting, neglecting, role-reversing, or otherwise unloving) childhood experiences with maternal and paternal caregivers (for similar evidence for this latent structure in a higher-risk sample, see Kobak & Zajac, in press).

Why is it important to accurately characterize the nature of individual differences observed in the AAI? Attachment researchers have long hypothesized that there are distinctive behavioral, affective, and cognitive profiles associated with dismissing versus preoccupied states of mind. Specifically, dismissing states of mind should be associated with affective suppression, disengagement from interactions with attachment partners, and defensive shifts of attention away from attachment-related threats including situations that activate attachment needs and provisions (Creasey & Ladd, 2005; DeWitte, Koster, De Houwer, & Buysse, 2007; Dozier & Kobak, 1992; Fraley, Garner, & Shaver, 2000; Main, 1999). Preoccupied states of mind, on the other hand, should be associated with negative appraisals of attachment-related information, including negative views of self and other, and heightened attachment-related distress and negative affect in interactions with attachment partners (Creasey & Ladd, 2005; Kobak & Sceery 1988). Despite the strong theoretical basis for such claims, relatively few studies in developmental psychology relying on Main and Goldwyn's (1998) coding system (i.e., a coding approach that frames AAI dismissing and preoccupied states of mind as mutually incompatible) have been able to demonstrate the unique predictive significance of these putatively distinctive forms of insecurity (see Roisman, 2007, for discussion; but see van IJzendoorn, 1995).

In contrast, studies using the AAI dimensions described above (i.e., that do not assume that insecure states of mind are incompatible) have demonstrated that dismissing and preoccupied states of mind are associated with distinctive, theory-consistent correlates. For example, Whipple, Bernier, and Mageau (in press) reported evidence that, upon scaling adults on these two axes, dismissing states of mind were uniquely predicted low levels of parental sensitivity whereas preoccupation uniquely predicted low levels of autonomy support (i.e., intrusiveness). Paralleling these findings, we have demonstrated that

dismissing states of mind are associated with suppression of attachment-related affect whereas preoccupation is associated with activation of attachment-related affect. Specifically, whereas dismissing states of mind were associated with lower levels of positive engagement in interactions with romantic partners, preoccupation was associated with heightened negative affect in romantic interactions (Haydon et al., in press), findings replicated in the context of interactions between siblings in young adulthood (Fortuna, Roisman, Haydon, Groh, & Holland, in press).

An additional feature of the latent structure identified in Haydon et al.'s (in press) report is that, in addition to state of mind dimensions, two relatively independent dimensions assessing participants' inferred negative experience with caregivers emerged as distinct components of attachment-related variation. This is noteworthy in light of the fact that, to date, the AAI inferred experience scales remain relatively neglected in the AAI literature, despite their role in assigning AAI classifications and aiding coders in evaluating certain state of mind scales (e.g., idealization; Hesse, 2008). One reason for the relative omission of inferred experience scales from the literature might be that their developmental origins and correlates remain unclear. Inferred experience scales are not assumed to reflect veridical reports of earlier experiences with caregivers, but rather to capture adults' depiction of earlier experiences at the time of the interview (Roisman & Haydon, in press). Thus, they may reflect mood-related biases (Roisman et al., 2006) or perhaps more proximal behavioral expectancies of caregivers (Kobak & Zajac, in press). Despite remaining questions about exactly what is assessed by the inferred experience scales, recent evidence suggests that they capture distinctive aspects of attachment-relevant variation that aid in identifying theory-consistent effects (Haydon et al., in press).

There are at least two potential advantages to using the inferred experience scales in empirical research. First, there has been some interest in the correlates of depictions of harsh childhood experiences, particularly among otherwise secure adults (so-called “earned-secures”; Roisman & Haydon, in press). Scaling adults with respect to the valence of such depictions in conjunction with assessing relatively independent state of mind scales has the potential to allow researchers to capture a better specified yet broader spectrum of individual variation across multiple attachment-related dimensions, which in turn may help address questions concerning the correlates of earned security, retrospectively defined. Second, preliminary evidence indicates that when state of mind dimensions are examined in conjunction with inferred experience dimensions as covariates, effects typically attributed to state of mind might more appropriately be viewed as a result of variation in how participants describe their early lives (whether or not such depictions are veridical; Roisman, Padrón, Sroufe, & Egeland, 2002; Roisman, Fortuna, & Holland, 2006). For example, preoccupation has long been viewed as a risk factor for self-reported depressive symptomatology (e.g., Kobak & Sceery, 1988; Pianta, Egeland, & Adam, 1996). However, Haydon et al. (in press) found that a significant association between preoccupied states of mind and reports of internalizing symptoms was eliminated after accounting for participants' inferred negative experience with caregivers.

## The Current Studies

Accumulating evidence indicates the latent structure of the AAI is not entirely consistent with the standard developmental conceptualization of individual differences in attachment. Bernier and her colleagues (2005), followed by Roisman and his collaborators (2007), provided evidence drawn from two independent samples for relatively orthogonal dismissing and preoccupied dimensions based on PCAs of AAI state of mind scales from the Main and Goldwyn (1998) scoring system. Haydon et al. (in press) extended this work by examining whether the same latent structure emerged in a third independent sample featuring AAI Q-Sort data, and demonstrated for the first time that inferred experience

dimensions also emerged as distinctive components. Haydon et al. (in press) also demonstrated that these dimensions aided in identifying theoretically anticipated, yet rarely observed, distinctive affective correlates of dismissing and preoccupied states of mind during romantic conflict interactions: dismissing states of mind were associated with affect suppression, whereas preoccupied states of mind were associated with affective hyperactivation (both effects replicated in a sample of adult sibling pairs by Fortuna et al., in press). Haydon et al. (in press) also documented that inferred experience dimensions largely accounted for effects of preoccupied states of mind on internalizing distress.

The current paper extends these previous findings in several ways. The primary goal of the current paper is to further explore the construct validity of the approach reported by Haydon et al. (in press) for scaling adults on the AAI. We first examine the convergent validity of the AAI scales reported in Haydon et al. (in press) by using experimental methods, drawn from the social and personality psychology literature, that have already provided insight into the mental architecture of attachment-related individual differences (Mikulincer, Dolev, & Shaver, 2004; Mikulincer, Gillath & Shaver, 2002; Shaver & Mikulincer, 2002). Specifically, Study 1 examines whether dismissing and preoccupied dimensions are differentially associated with performance in two tasks typically used to understand the availability and accessibility of mental content. We examine (a) the accessibility of attachment-related themes delivered via an attachment Stroop paradigm and (b) the valence of self-appraisals as measured in an adjective checklist (ACL) task. We also examine whether inferred experience dimensions are similarly associated with patterns of response in these two paradigms. We expected that dismissing—but not preoccupied—states of mind would be associated with a lesser degree of attachment system activation in the face of attachment-related threats (i.e., faster Stroop color-naming reaction time to words evoking proximity to attachment figures). We also expected preoccupied—but not dismissing—states of mind to be associated with activation of negative self-appraisals (i.e., endorsing more negative adjectives in the ACL as descriptive of the self). In each case we also examined whether links between states of mind and cognitive processes can be accounted for by inferred experiences with caregivers.

The second goal of this report is to revisit the apparent discriminant validity of the AAI in relation to self-reports of attachment style in light of emerging evidence that the latent structure of the AAI more closely parallels that of self-report measures than previously thought. There has been much scholarly interest in the extent to which the two measurement traditions converge empirically (Crowell, Fraley, & Shaver, 1999; Fraley, 2002). At present, the most definitive characterization of this literature is contained within Roisman et al.'s (2007) meta-analysis, revealing a relatively weak association overall ($r$ = .09; $N$ = 1,221) between self-reported and AAI security generally, but nonetheless evidence for two small but significant associations between AAI and self-report attachment dimensions (i.e., self-reported anxiety and AAI unresolved status and self-reported avoidance and dismissing discourse in the AAI). Although this meta-analytic work provided important evidence that the AAI and self-reports of attachment style show minimal empirical overlap, questions remain about why the measures do not converge. For example, scant empirical attention has been paid to date to whether the relative lack of convergence between social-personality assessment of attachment style and the AAI is attributable either to the fact that the two traditions (a) currently use different latent structures to describe attachment-related individual differences (i.e., the social-personality tradition focuses on theoretically orthogonal anxiety and avoidance dimensions but the standard AAI coding system does not) or (b) differ in their focal domains (i.e., adult romantic relationships vs. early experiences with caregivers).

In Studies 2 and 3, we examine convergence between the AAI scales and self-report attachment style measures by directly addressing these potentially important—but as yet unexamined—sources of divergence. Specifically, Study 2 addresses whether, in a large sample, Kobak's (1993) dismissing and preoccupied prototype dimensions and the empirically derived AAI inferred experience dimensions from Haydon, Roisman, and Burt (in press) converge with self-reported avoidance and anxiety dimensions. In so doing we examine whether the use of parallel latent structures with respect to the measurement of AAI and self-reported dimensions reveal more convergence between the two measures than has been previously documented. We also examine whether inferred experience dimensions—when measured independently of states of mind—converge with self-report scales given that, like self-report dimensions, inferred experience dimensions are potentially more closely tied to conscious evaluations of attachment experiences than are state of mind dimensions.

In Study 3, we address the issue of domain-specificity by examining whether the AAI state of mind and inferred experience scales converge with self-reported avoidance and anxiety in four specific relationships (mother, father, romantic partner, and best friend). We expect that when the AAI dimensions and self-report measures are assessed at the same level of representation—that is, in evaluating specific relationships rather than more generalized representations of attachment—it might be possible to demonstrate more convergence than has been previously documented meta-analytically (Roisman et al., 2007). In particular, we expect the inferred experience scales—the more relationship-specific aspect of the AAI—to demonstrate the strongest associations with relationship-specific measures of attachment avoidance and anxiety when the latter are focused on avoidance and anxiety with maternal and paternal caregivers rather than romantic attachment in general.

## Study 1

Study 1 examined whether preoccupied and dismissing states of mind have distinctive correlates with respect to the availability and accessibility of attachment-related mental content (i.e., reaction time in the attachment Stroop paradigm) and the valence of self-descriptions. Specifically, we expected that dismissing states of mind would be associated with faster reaction time to proximity words in the Stroop paradigm due to defensive shifts of attention away from attachment-related threats. We also expected that preoccupied states of mind, previously associated with activation of negative affect in attachment-related interpersonal contexts (Fortuna et al., in press; Haydon et al., in press), would be associated with negative self-appraisal. Study 1 also examined whether these effects were accounted for by inferred negative experience with caregivers.

### Method

The sample consisted of 73 heterosexual couples, totaling 146 individuals (73 male, 73 female). Participants responded to a flyer seeking research subjects for a longitudinal study on romantic relationships. Each member of each couple was paid $110 for participation. Average age was 20.97 years (SD = 1.80). Seventy nine percent of participants were Caucasian.

**Materials and Procedure—**As part of a larger longitudinal study focused on the development of dating relationships, couples (original $n$ = 115) were brought to the lab a total of three times (sessions were spaced approximately 6 months apart). The current report focuses on data collecting during the first two of these laboratory visits. Specifically, during the first of these lab sessions participants separately completed an interview about their childhood experiences known as the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985). (Couples also completed a conflict interaction task but those data are not reported here; see Holland & Roisman, 2010).

**Attachment Stroop Task:** The attachment Stroop task, a modification of the standard Stroop task, assesses the interference of attachment-related content (i.e., words related to distance from and proximity to attachment figures) in participants' processing of simultaneously presented competing task-relevant information (i.e., word color). Participants completed 30 trials: 10 trials featured attachment-related words implying distance (e.g., leaving, abandon), 10 were attachment-related words implying proximity (e.g., hugging, loving), and 10 were neutral words (e.g., wires, carwash). Each trial began with the presentation of a fixation point for a random period of 2–5 seconds, followed by the target word. Target words were presented in one of four randomly selected colors (red, blue, green, and yellow) on a black background, with the exception that no color appeared twice in a row. The Stroop task was programmed using E-Prime software, and run on the same equipment mentioned above. Participants spoke their responses into a microphone designed for use with E-Prime. If the participant did not respond within 1200 msec, the trial was recorded as an incorrect response. Following the response, there was a 2000 msec lag before the next trial began. Participants' color naming reaction times were measured in milliseconds. The number of responses featuring ironic slips (e.g., the participant said the word “abandon” when the word “abandon” was presented in yellow text) was manually recorded (two ironic slips in total).

**Adjective Checklist:** In this task, participants were presented with 30 positive (e.g., sincere, honest) and 30 negative (e.g., unkind, selfish) adjectives in random order. Words were selected from Anderson's (1968) list of trait adjectives. Participants were instructed to rate the extent to which various adjectives described themselves. Each trial began with the presentation of a focal point presented in the center of the screen. Following a random delay of 3 to 5 seconds, an adjective was presented until the participant responded. Stimuli were presented in white letters against a black background. Responses were entered via a serial response box designed for use with E-Prime software. Participants pressed a button labeled “yes” if they believed an adjective described them, and a button labeled “no” if they believed an adjective did not describe them. One second after the participant's response was recorded the next trial began. The adjective checklist was programmed using E-Prime software, and was run on a Dell Dimension desktop computer with a CRT monitor. Cronbach's alpha was .85 for the positive adjectives and .84 for the negative adjectives.

**Adult Attachment Interview—**The AAI (George et al., 1985) is a semi-structured clinical interview in which participants are asked to describe their early relationships with caregivers and the effects these experiences may have had on their personality and development. Upon arrival at the laboratory, participants were administered the AAI by an interviewer who received extensive training in its administration from G.I.R. The interviews were transcribed verbatim, and coded according to the coherence of speakers' discourse using Kobak's (1993) AAI Q-Sort by coders trained in and reliable with Main and Goldwyn's (1998) AAI categorical coding system. The AAI Q-Sort (Kobak, 1993) consists of 100 descriptive cards that are sorted into a forced normal distribution across nine piles from least to most characteristic.

In the final step of data reduction, Pearson correlations were computed between each of the composited sorts and prototypic “dismissing” (e.g., as assessed by the cards “Responses are superficial and require further probes vs. talks easily and in depth at appropriate times” and “Adjectives supported by vague or shallow memories vs. adjectives supported by detailed episodic memories”) and “preoccupied” (e.g., as assessed by the cards “Is confused or overwhelmed with information about parents vs. information about parents is adequate and well organized” and “Responds in a clear, well-organized fashion vs. fails to grasp and passively struggles with interview questions”) sorts developed by Roger Kobak and his colleagues (see Kobak, Cole, Ferenz-Gillies, Fleming, & Gamble, 1993, for details). Based

on this analysis, participants were assigned continuous scores ranging from −1.00 to 1.00 on each construct, with higher scores indicating greater resemblance to the prototypically dismissing and preoccupied individual, respectively. Given that Haydon et al. (in press) demonstrated that empirically derived versions of these scales (based on Principal Components Analysis of the raw AAI Q-Sort cards) were essentially redundant with Kobak's prototype scales, we used the prototype scales in the current report.

We also used the AAI Q-Sort items to compute scores for each participant on scales of inferred negative maternal (e.g., as assessed by the cards “Mother pushed subject toward precocious independence vs. mother was available when subject encountered setbacks” and “Relationship with mother was relaxed and open vs. subject was tense with mother”) and paternal (e.g., as assessed by the cards “Father was a competent and supportive confidant vs. father was unwilling or unable to listen to the child's problems” and “Father called attention to his own needs and concerns vs. father was responsive to subject's needs and concerns”) experiences. These scales were based on the results of a principal components analysis of AAI Q-Sort data from a large sample ($N$ = 842; see Haydon et al., in press). AAI Q-Sort items comprising each scale were reverse coded where necessary and averaged. Each dimension reflects the extent to which experiences with caregivers were reported as positive (lower scores) or negative (higher scores). Note that these dimensions are conceptually parallel to the standard AAI Mother and Father Loving scales, although an empirical link between these scales and the PCA-derived inferred experience scales has not yet been reported in the literature.

For the full set of AAIs coded at time 1, 20% were double-sorted and reliability of .6 or greater (Pearson-Brown Prophecy Formula) was achieved for 78% of these transcripts. Where two coders were discrepant, a third coder sorted the case; the final sort was computed by averaging the two sorts that were most highly correlated. Cronbach's alpha for the Study 1 sample was .92 for inferred maternal experience and .93 for inferred paternal experience.

**Analyses—**For the Stroop task, reaction times for correct answers were averaged according to word type. As a within-person control for general reaction times, we subtracted the mean reaction time to neutral words (a quasi-baseline measure) from the reaction times for distance and proximity words. These values served as the first set of dependent variables. For each person, the number of endorsed positive and negative adjectives from the ACL served as the second set of dependent variables.

## Study 1: Results

Pearson correlations between all Study 1 variables appear in Table 1. We conducted two hierarchical regressions to test relations between the four AAI scales (dismissing and preoccupied states of mind and maternal and paternal inferred experiences) and reaction time to distance- and proximity-related words in the attachment Stroop task. We then conducted two hierarchical regressions to test associations between the four AAI scales and the total number of self-endorsed positive and negative adjectives. In each regression, state of mind scales were entered in Step 1 and inferred experience scales were entered in Step 2 in order to examine whether state of mind effects (the primary focus of the AAI literature) were altered when negative inferred experiences with caregivers (which are relatively underutilized) were entered as covariates. To ensure that shared variance between dyads did not affect results, we also conducted all analyses using Hierarchical Linear Modeling (HLM, Bryk & Raudenbush, 1992); results did not differ from those presented here[1].

[1]Sex did not moderate any of the effects reported in Studies 1, 2, or 3.

### Reaction Time to Proximity and Distance Words

Dismissing states of mind were associated with faster reaction time to proximity-related words in the Stroop task; this effect was robust when inferred experiences with caregivers were entered in the second step of the regression (Table 2). Preoccupied states of mind and maternal and paternal inferred negative experiences were unrelated to reaction time to proximity-related words. Reaction time to distance-related words was unrelated to all state of mind and inferred experience scales.

### Positive and Negative Views of Self

Preoccupied states of mind were associated with endorsing more negative adjectives (Table 3); this effect was attenuated to non-significance when inferred negative maternal experience was entered in Step 2 (Sobel coefficient = 1.90, $p = .06$). Dismissing states of mind and inferred negative paternal experience, however, were not associated with the number of endorsed negative adjectives. Neither state of mind nor inferred experience were associated with the number of endorsed positive adjectives, although preoccupied states of mind were marginally associated with endorsing fewer positive adjectives.

### Study 1: Discussion

Study 1 demonstrated the divergent predictive significance of preoccupied versus dismissing states of mind with respect to attachment-related information processing and appraisal. Dismissing states of mind were associated with faster reaction time to proximity words, suggesting deactivation in the face of processing attachment-related threatening affective cues. Preoccupied states of mind were associated with endorsing more negative views of self, although this effect was eliminated once we accounted for talking about negative attachment-related experiences with mothers.

Note that the literature on attachment information processing has articulated multiple proposals regarding expectations for differences between secure versus insecure individuals (see Atkinson et al., 2009 for an overview). With respect to attachment-related attentional biases in particular, slower response latencies to attachment-related information have been interpreted as indicative of controlled rather than automatic processing and correlated with dismissing states of mind (Maier, Bernier, Pekrun, Zimmerman, & Grossmann, 2004), whereas faster response latencies have been interpreted as indicative of suppression of attachment threats and correlated with insecurity (and dismissing/avoidance in particular; Zeijlmans van Emmichoven, van IJzendoorn, de Ruiter, & Brosschot, 2003). Our findings appear to be more consistent with the latter interpretation, given that the link between dismissing states of mind and reaction time was specific to words evoking proximity (i.e., threat) rather than distance (i.e., non-threat). This finding is consistent with the possibility that dismissing states of mind are associated with (possibly) unconscious minimization of attention devoted to threatening attachment stimuli, and parallels previously documented associations between dismissing states of mind and suppression of attachment related affect during interpersonal interactions (Fortuna et al., in press; Haydon et al., in press).

## Study 2

### Method

Study 2 examined the convergence of the AAI state of mind and inferred experience scales with self-reported attachment anxiety and avoidance. Participants ($N = 612$) were drawn from all studies in the Relationships Research Laboratory at the University of Illinois at Urbana-Champaign in which AAI and self-reported attachment data were collected with the Relationships Style Questionnaire (RSQ; Griffin & Bartholomew, 1994)[2]. Specifically, data were drawn from three samples of college students (Roisman, Tsai, & Chang, 2004, $n = 60$;

Roisman, 2006, *n* = 100; Roisman, Fortuna, & Holland, 2006, *n* = 32 sub-sample that had not previously been administered the AAI as part of an earlier assessment featured in Roisman, 2006) and five dyadic community samples (aggregate *n* = 420 individuals drawn from 210 dyads) of: (a) engaged couples between 18 and 30 years of age (Roisman, 2007; Roisman et al., 2008; Roisman et al., 2007, *n* = 100, 50 dyads), (b) married couples 50 years of age or older (Roisman, 2007; Roisman et al., 2008, *n* = 80, 40 dyads), (c) romantically involved, mutually committed same-sex male couples (Roisman et al., 2008, *n* = 60, 30 dyads), (d) romantically involved, mutually committed same-sex female couples (Roisman et al., 2008, *n* = 60, 30 dyads), and (e) young adult sibling pairs between 18 and 25 years of age (Fortuna, Roisman, Haydon, Groh, & Holland, in press, *n* = 120, 60 dyads). The full sample was diverse with respect to age (range = 18 to 77 years; *M* = 27.98, *SD* = 13.69), gender-balanced (307 men and 305 women), and primarily Caucasian (65.2%).

### Materials and Procedure

**Relationship Style Questionnaire:** Prior to arrival at the laboratory, all participants completed the RSQ (Griffin & Bartholomew, 1994), a self-report measure of attachment style that focuses on experiences on "close relationships," as defined by the respondent. Data were reduced into avoidance and anxiety dimensions using the operationalization scheme reported by Simpson, Rholes, and Nelligan (1992; see Roisman, Holland, et al., 2007, for details). Cronbach's alpha was .85 for the avoidance scale and .80 for the anxiety scale.

**Adult Attachment Interview:** Upon arrival at the laboratory, all participants were administered the AAI by an interviewer who received extensive training in its administration from G.I.R.. The AAI Q-Sort (Kobak, 1993) was then used to code adults' AAI narratives following the procedure described in Study 1. For the Study 2 sample, 44.3% of cases (271/612) were double-sorted (the percentage of double-sorted cases varied across the subsamples aggregated for this analysis; see, e.g., Roisman et al., 2008). Of the subset of double-coded cases, coders were reliable (≥.6 using the Pearson-Brown Prophecy formula) on 81.9% of cases. Inferred maternal and paternal experience scores were also computed following the procedure described in Study 1.Cronbach's alpha for the Study 2 sample was . 95 for both inferred maternal experience and inferred paternal experience.

## Study 2: Results and Discussion

To examine convergence between attachment dimensions, we calculated Pearson correlations between the four AAI dimensions (dismissing and preoccupied states of mind and maternal and paternal inferred experience) and RSQ avoidance and anxiety dimensions. The AAI dimensions were moderately inter-correlated (*r*s ranged from .19–.56, $p < .001$), as were the RSQ avoidance and anxiety scales ($r = .44$, $p < .001$). The RSQ dimensions were only trivially related to the state of mind dimensions. Specifically, dismissing states of mind were not significantly associated either with avoidance ($r = .06$, $p = .13$) or anxiety ($r = -.04$, $p = .34$). Preoccupied states of mind were likewise essentially uncorrelated with avoidance ($r = -.01$, $p = .78$) and trivially associated with anxiety ($r = .08$, $p = .04$). Inferred maternal experience was unrelated to avoidance ($r = .03$. $p = .43$) and anxiety ($r = .03$, $p = .53$). That said, inferred paternal experience was significantly associated with both avoidance ($r = .12$, $p < .01$) and anxiety ($r = .17$, $p < .001$)—small effects by Cohen's (1992) criteria.

[2]Participants represented in the current Study 2 overlap partially (*N* = 260; 42% of the Study 2 sample) with all participants represented in Studies 2 and 3 from Roisman, Holland, et al (2007). However, in the current report we used the AAI Q-Sort dismissing and preoccupied dimensions whereas the previous report used the secure/autonomous and deactivation-hyperactivation dimensions.

We also conducted hierarchical regressions to examine whether associations between state of mind and RSQ dimensions were affected when inferred experiences were taken into account (Table 4). Both state of mind dimensions were entered in Step 1 and inferred experience dimensions were entered in Step 2. For the model predicting RSQ avoidance, both state of mind dimensions (dismissing and preoccupied) were unrelated to avoidance in Step 1; however, in Step 2 preoccupation was marginally associated with lower avoidance and inferred paternal experience was significantly associated with higher avoidance. Inferred maternal experience was unrelated to avoidance. For the regression model predicting RSQ anxiety, Step 1 indicated a significant positive association between preoccupation and anxiety; dismissing states of mind were unrelated to anxiety. In Step 2, dismissing states of mind were significantly associated with lower anxiety while inferred paternal experience was significantly associated with higher anxiety. Moreover, inferred paternal experience significantly attenuated the effect of preoccupation on RSQ anxiety (Sobel = 2.57, $p = .01$). Inferred maternal experience was unrelated to anxiety.

Taken together, this evidence is consistent with previous reports of weak convergence between AAI and self-reported attachment assessments (Roisman et al., 2007). However, these findings also contribute new evidence that when AAI state of mind and inferred experience dimensions are assessed as relatively orthogonal dimensions, there was modest convergence between inferred paternal—but not maternal—experience and both self-reported avoidance and anxiety. Moreover, the association between preoccupation and anxiety was attenuated once reporting negative experiences with caregivers was taken into account, as was the association between dismissing states of mind and avoidance. Conversely, accounting for reports of negative experience with caregivers revealed significant but modest negative associations between dismissing states of mind and anxiety and between preoccupied states of mind and avoidance.

## Study 3

Study 3 examined the convergence between the AAI scales and relationship-specific measures of self-reported attachment avoidance and anxiety. The Study 3 sample consisted of 115 heterosexual couples, totaling 230 individuals, recruited for the longitudinal study on romantic relationships described in Study 1. In the full sample, average age was 20.44 years ($SD = 1.70$) at Time 1. Seventy five percent of participants were Caucasian.

**Materials and Procedure—**As part of the larger longitudinal study focused on the development of dating relationships described in Study 1, couples were brought to the laboratory a total of three times. Study 3 focuses on data collected prior to and during the first of these laboratory visits.

**Relationship Structures:** Prior to arrival at the laboratory, participants completed the Relationship Structures assessment online (ECR-RS; Fraley, Heffernan, Vicary, & Brumbaugh, in press) to assess avoidance and anxiety with respect to four specific attachment targets: mother, father, romantic partner, and best friend. Participants rated the same ten items on a 7-point scale for each relationship. Items were drawn from the revised Experiences in Close Relationships measure (ECR-R; Fraley, Waller, & Brennan, 2000; see Fraley et al., in press, for detailed information on the development of the Relationship Structures survey). Data were reduced into avoidance and anxiety dimensions for each attachment target using the operationalization scheme reported in Fraley et al. (in press). The Cronbach alphas for the ECR-RS scales ranged from .87 (avoidance with partner) to .91 (anxiety with partner).

**Adult Attachment Interview:** Upon arrival at the laboratory, participants were administered the AAI (George et al., 1985) by an interviewer who received extensive training in its administration from G.I.R. The AAI Q-Sort (Kobak, 1993) was then used to code adults' AAI narratives following the procedure described in Study 1. For the full set of AAIs coded at time 1, 20% were double-sorted and reliability of .6 or greater (Pearson-Brown Prophecy formula) was achieved for 78% of these transcripts. Where two coders were discrepant, a third coder sorted the case; the final sort was computed by averaging the two sorts that were most highly correlated. Inferred maternal and paternal experience scores were also computed following the procedure described in Study 1. Cronbach's alpha for the Study 3 sample was .92 for inferred maternal experience and .93 for inferred paternal experience.

## Study 3: Results

Table 5 presents Pearson correlations between the four AAI scales (dismissing and preoccupied states of mind, and maternal and paternal inferred experience) and the RSQ avoidance and anxiety scales for each relationship. Consistent with Study 2 and prior meta-analytic evidence (Roisman et al., 2007), the AAI state of mind scales shared trivial to small overlap with the RS avoidance and anxiety scales. In contrast, we observed somewhat greater convergence between the AAI inferred experience scales and ECR-RS scales. In particular, as expected, the AAI mother and father inferred experience scales showed the highest convergence with the ECR-RS mother and father avoidance scales respectively (*r*s = .30 and .41, respectively)—effects considered medium by Cohen's (1992) criteria; convergence between AAI experience scales and the ECR-RS anxiety scales was also in the medium range (*r*s = .24 and .22, respectively). Convergence between the AAI scales and ECR-RS scales for romantic partners and best friends were comparatively weaker than convergence between the AAI scales and ECR-RS mother and father scales.

We also conducted hierarchical regressions to test relations between the four AAI scales and each of the four relationship-specific ECR-RS avoidance and anxiety scales (eight regressions in total). In each regression, AAI state of mind scales were entered in Step 1 and AAI inferred experience scales were entered in Step 2 in order to examine whether associations between state of mind and ECR-RS dimensions were attenuated after accounting for inferred experience dimensions. To ensure that shared variance between dyads did not affect results, we also conducted all analyses using Hierarchical Linear Modeling (HLM, Bryk & Raudenbush, 1992); results did not differ from those presented here.

Regression results are presented in Table 6. Inferred maternal experience significantly attenuated the association between dismissing states of mind and ECR-RS mother avoidance (Sobel test = 3.75, $p < .001$); preoccupied states of mind were also significantly negatively associated with ECR-RS mother avoidance in Step 2. Inferred maternal experience also significantly attenuated the association between preoccupation and ECR-RS mother anxiety (Sobel test = 3.39, $p < .001$); dismissing states of mind were negatively associated with ECR-RS mother anxiety in Step 2. Preoccupied states of mind were significantly associated with ECR-RS father avoidance in Step 1, but this association was significantly attenuated by inferred father experience (Sobel test = 4.49, $p < .001$); Moreover, dismissing states of mind were actually negatively (i.e., counterintuitively) associated with ECR-RS father avoidance in this model. The same finding obtained for ECR-RS father anxiety: the effect of preoccupation was significantly attenuated by inferred father experience (Sobel test = 3.32, $p < .001$) and dismissing states of mind were negatively associated with ECR-RS father anxiety in Step 2. With respect to romantic partners, avoidance and anxiety were associated with inferred mother experience but not with the state of mind scales or inferred father experience. Dismissing states of mind were associated with best friend avoidance; this effect

was robust to the inferred experience scales when they were entered in Step 2. No significant associations were found between the four AAI scales and best friend anxiety.

Study 3 results are consistent with prior findings of relatively low convergence between state of mind and avoidance and anxiety dimensions. Nonetheless, the AAI inferred experience dimensions actually had fairly substantial overlap with self-reported avoidance and anxiety scales when the latter are focused on specific attachment caregivers (i.e., mothers and fathers). Although exactly what is captured by the AAI inferred experience scales remains to be fully examined, this finding lends some support to the proposal that inferred experience scales capture caregiver-specific behavioral expectancies (Kobak & Zajac, in press) in that they were associated with participants' self-reports about current relationship experiences with parents in the context of the ECR-RS.

## General Discussion

The current studies provide additional evidence for the construct validity of adult attachment-related dimensions as assessed via the AAI, using the empirically derived latent structure introduced by Roisman, Fraley, and Belsky (2007) and recently elaborated upon by Haydon, Roisman, and Burt (in press). Study 1 provided evidence of the convergent validity of the AAI dimensions regarding the predictive significance of dismissing versus preoccupied states of mind in relation to two forms of attachment-related cognition: information processing and self-appraisals. As expected, dismissing (but not preoccupied) states of mind were associated with suppression of threatening attachment-related cues, whereas preoccupied (but not dismissing) states of mind were associated with endorsing more negative views of self. These findings are consistent with the social-personality literature with respect to previously reported divergent associations of avoidance and anxiety dimensions with response latency in the Stroop task (Mikulincer et al., 2004) and the valence of views of self (Mikulincer, 1998). Moreover, the association between preoccupation and the endorsement of negative views of self was attenuated once we accounted for inferred negative experience with mothers, suggesting that self-appraisals are more specifically tied to the valence of individuals' depictions of their early experiences with caregivers during the AAI than to other aspects of the states of mind associated with preoccupation. Taken together, these findings add to accumulating evidence that our empirically-driven approach to scaling adults on AAI dimensions (Haydon et al., in press; Roisman et al., 2007) aids in identifying theoretically anticipated distinctive affective, behavioral, and cognitive correlates of dismissing versus preoccupied states of mind.

Studies 2 and 3 addressed the discriminant validity of the AAI dimensions with self-reported attachment style measures, and contributed new evidence about why there has been relatively low convergence between the two to date. Consistent with previous meta-analytic work in this area (i.e., Roisman et al., 2007), Study 2 documented relatively little empirical overlap between the AAI state of mind dimensions and RSQ avoidance and anxiety dimensions. Despite their conceptually parallel latent structures in this study, states of mind regarding attachment experiences as assessed by the AAI and self-reported attachment orientations appear to assess empirically distinct aspects of attachment-related variation. Nonetheless, Study 3 documented that when one examines second-order forms of attachment-related variation in the AAI (i.e., inferred experience with caregivers) there is greater convergence between the AAI dimensions and self-reported avoidance and anxiety, particularly when the latter focus explicitly on the assessment of attachment-related experiences with mothers and fathers.

The association between inferred experience dimensions and self-reported relationship-specific avoidance and anxiety, however, does not suggest that these scales assess the same

construct. Broadly speaking, the findings of this study are compatible with those reported in the Roisman et al. (2007) meta-analysis. Namely, self-reported attachment-related anxiety and avoidance are only weakly associated with the primary state of mind dimensions of the AAI that feature so prominently in relevant publications. We thus continue to believe that narrative reviews should not cite and discuss results from the AAI and self report literatures as if the measures were interchangeable, a common practice that has led to much confusion in social and developmental psychology..

Although historically the inferred experience scales of the AAI coding system have been underutilized compared to the state of mind scales, several analyses in the current report illustrate the benefits of examining the predictive significance of the state of mind dimensions while simultaneously accounting for variation in inferred negative experiences with maternal and paternal caregivers. Of special relevance in this regard, inferred experiences attenuated effects of preoccupation on negative self-appraisals in Study 1, which conceptually parallels a previous finding from our laboratory that inferred experience accounted for the association between preoccupation and self-reported depressive symptomatology (Haydon et al., in press). Inferred experience scales also accounted for convergence between preoccupied states of mind and self-report measures of avoidance and anxiety in Studies 2 and 3. Although there is already evidence that preoccupied states of mind show incremental predictive validity above and beyond variation in inferred experience (e.g., in Haydon et al., in press, individuals with preoccupied states of mind showed more negative affect in their interactions with romantic partners and these associations were robust when inferred experiences were taken into account), data in this report nonetheless suggest that there are multiple benefits of routinely examining inferred maternal and paternal experience scales in future research on the AAI, particularly as covariates in relation to the state of mind dimensions.

## Limitations

The AAI dimensions used in the current study, derived from the AAI Q-Sort, do not capture variation related to unresolved loss and trauma (see Haydon et al., in press, for a detailed discussion of the representation of loss and trauma items in the AAI Q-Sort). Although the AAI Q-Sort contains six items relevant to attachment-related loss or trauma (e.g., “Shows continued confusion or disorganization about the loss of a significant other v. has successfully resolved a major loss”), none of these items loaded adequately on the state of mind or inferred experience dimensions in the PCA reported by Haydon et al. (in press). Moreover, AAI classification data were not available for the full sample, so we were unable to examine rates of attachment-related loss, trauma, and unresolved status in these studies. We thus note that the current findings, based on normative community and college samples, may not generalize to clinical samples in which unresolved loss and trauma likely occur more frequently. In light of these limitations, as well as evidence from one prior study in which preoccupied and unresolved states of mind loaded on a single principal component (Roisman et al., 2007), additional work is required to more fully examine the place of unresolved loss and trauma in the latent structure of the AAI.

More generally, the latent structure of the AAI, now identified in three independent samples through exploratory factor-analytic techniques (i.e., PCA), has yet to be submitted to confirmatory factor analysis; doing so is an important direction for future research. Nevertheless, none of the existing work on AAI latent structure is consistent with the more common conceptualization of individual differences in attachment in developmental psychology, which distinguishes autonomous/secure states of mind from two mutually incompatible forms of insecurity. Although the use of a single secure/autonomous scale may well be advantageous in certain empirical situations (e.g., to summarize adolescent attachment organization; Allen, 2008), we emphasize that doing so might conflate two

weakly-associated forms of insecurity, thereby reifying a distinction not reflected in the data.

### Conclusion

The current report contributes new evidence that the AAI dimensions reported in Haydon et al. (in press) perform well with respect to their convergent and discriminant validity and aid in indentifying theoretically anticipated, distinctive correlates of dismissing versus preoccupied states of mind. This report also highlights the capacity of the AAI inferred experience dimensions to connect the developmental and social-personality attachment traditions in ways that lend coherence to the literature on attachment-related individual differences. In sum, we believe the approach to assessing adult attachment-related variation highlighted in this report incrementally strengthen the AAI tradition of research—and its connection to the social-personality tradition—by simultaneously retaining the core insights of the measure while leveraging advancements in our understanding of the latent structure of the AAI.

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**Table 1**

Study 1: Pearson Correlations Between AAI Dimensions, Stroop, and ACL Variables

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
|---|---|---|---|---|---|---|---|---|
| 1. Dismissing | - | | | | | | | |
| 2. Preoccupied | .29*** | - | | | | | | |
| 3. M Experience | .33*** | .57*** | - | | | | | |
| 4. F Experience | .40*** | .30*** | .24** | - | | | | |
| 5. Stroop Distance | −.03 | −.01 | .09*** | −.02 | - | | | |
| 6. Stroop Proximity | −.12 | .03 | .13 | .02 | .50*** | - | | |
| 7. ACL Negative | .02 | .24** | .25** | .12 | −.17* | −.01 | - | |
| 8. ACL Positive | −.03 | −.15† | −.12 | −.08 | .08 | .01 | −.58*** | - |

Note.

M Experience and F Experience refer to negative inferred experiences with mothers and fathers, respectively. $N = 146$.

† $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$.

**Table 2**

Study 1: Hierarchical Regressions Predicting Reaction Time to Distance and Proximity Words

| | Distance | | | | Proximity | | | |
|---|---|---|---|---|---|---|---|---|
| **AAI Dimension** | **B** | **SE B** | **β** | **p** | **B** | **SE B** | **β** | **p** |
| Step 1 | | | | | | | | |
| Dismissing | −.03 | .09 | −.03 | .73 | −.15 | .09 | −.15 | .10 |
| Preoccupied | .00 | .09 | .00 | .99 | .07 | .09 | .07 | .40 |
| Step 2 | | | | | | | | |
| Dismissing | −.06 | .10 | −.06 | .56 | −.21 | .09 | −.21 | .03 |
| Preoccupied | −.08 | .10 | −.08 | .43 | −.06 | .10 | −.06 | .59 |
| Mother Experience | .16 | .10 | .16 | .12 | .22 | .10 | .22 | .04 |
| Father Experience | −.01 | .09 | −.01 | .87 | .07 | .09 | .07 | .46 |
| $R^2$ | .02 | | | | .06* | | | |

Note.

Mother Experience and Father Experience refer to negative inferred experience dimensions. $N = 146$.

* $p < .05$.

**Table 3**

Study 1: Hierarchical Regressions Predicting Self-Endorsed Negative and Positive Adjectives

| | Negative Adjectives | | | | Positive Adjectives | | | |
|---|---|---|---|---|---|---|---|---|
| **AAI Dimension** | **B** | **SE B** | **β** | **p** | **B** | **SE B** | **β** | **p** |
| Step 1 | | | | | | | | |
| Dismissing | −.06 | .09 | −.06 | .50 | .01 | .09 | .01 | .87 |
| Preoccupied | .26 | .09 | .26 | .00 | −.15 | .09 | −.15 | .08 |
| Step 2 | | | | | | | | |
| Dismissing | −.12 | .09 | −.12 | .19 | .04 | .10 | .04 | .66 |
| Preoccupied | .14 | .10 | .14 | .16 | −.12 | .10 | −.12 | .27 |
| Mother Experience | .20 | .10 | .20 | .05 | −.05 | .11 | −.05 | .61 |
| Father Experience | .08 | .10 | .08 | .38 | −.05 | .09 | −.05 | .58 |
| $R^2$ | .09** | | | | .03 | | | |

Note.

Mother Experience and Father Experience refer to negative inferred experience dimensions. $N = 146$.

** $p < .01$.

**Table 4**

Study 2: Hierarchical Regressions Predicting RSQ Avoidance and Anxiety

| | Avoidance | | | | Anxiety | | | |
|---|---|---|---|---|---|---|---|---|
| **AAI Dimension** | **B** | **SE B** | **β** | **p** | **B** | **SE B** | **β** | **p** |
| Step 1 | | | | | | | | |
| Dismissing | .07 | .04 | .07 | .10 | −.06 | .03 | −.06 | .13 |
| Preoccupied | −.03 | .04 | −.03 | .50 | .10 | .03 | .10 | .02 |
| Step 2 | | | | | | | | |
| Dismissing | .00 | .05 | .00 | .97 | −.15 | .04 | −.15 | .00 |
| Preoccupied | −.10 | .05 | −.10 | .07 | .02 | .04 | .02 | .67 |
| Mother Experience | .06 | .05 | .06 | .26 | .04 | .04 | .04 | .50 |
| Father Experience | .14 | .05 | .14 | .00 | .22 | .04 | .22 | .00 |
| $R^2$ | .02* | | | | .05*** | | | |

Note.

Mother Experience and Father Experience refer to negative inferred experience dimensions. $N$= 612.

* $p < .05$

*** $p < .001$.

**Table 5**

Study 3: Correlations Between AAI Dimensions and ECR-RS Avoidance and Anxiety Scales

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. AAI Dismissing | - | | | | | | | | | | | |
| 2. AAI Preoccupied | .32*** | - | | | | | | | | | | |
| 3. AAI M Experience | .39*** | .54*** | - | | | | | | | | | |
| 4. AAI F Experience | .44*** | .37*** | .23*** | - | | | | | | | | |
| 5. M Avoidance | .16* | .05 | .30*** | .11† | - | | | | | | | |
| 6. M Anxiety | −.04 | .11† | .24*** | −.04 | .43 | - | | | | | | |
| 7. F Avoidance | .04 | .16* | .13 | .41*** | .30 | .10 | - | | | | | |
| 8. F Anxiety | −.03 | .11† | .09 | .22** | .09 | .25 | .54 | - | | | | |
| 9. RP Avoidance | .08 | .09 | .15* | .04 | .25*** | .26*** | .09 | .20** | - | | | |
| 10. RP Anxiety | .08 | −.01 | .12† | .07 | .28*** | .23** | .19 | .13* | .37*** | - | | |
| 11. BF Avoidance | .15* | −.01 | −.02 | .12 | .13* | .09 | .13† | .04 | .13† | .14* | - | |
| 12. BF Anxiety | .11 | .02 | .12† | .09 | .17** | .19*** | .14 | .25*** | .09 | .28*** | .44*** | - |

Note.

M indicates Mother, F indicates Father, RP indicates Romantic Partner, and BF indicates Best Friend. Mother Experience and Father Experience refer to negative inferred experience dimensions. $N = 230$.

† $p < .10$

* $p < .05$

** $p < .01$

*** $p < .001$.

**Table 6**

Study 3: Hierarchical Regressions Predicting ECR-RS Avoidance and Anxiety for Mother, Father, Romantic Partner, and Best Friend

| | Avoidance | | | | Anxiety | | | |
|---|---|---|---|---|---|---|---|---|
| **AAI Dimension** | **B** | **SEB** | **β** | **p** | **B** | **SE B** | **β** | **p** |
| **Mother** | | | | | | | | |
| Step 1 | | | | | | | | |
| Dismissing | .16 | .07 | .16 | .03 | −.08 | .07 | −.08 | .24 |
| Preoccupied | −.00 | .07 | −.00 | .95 | .14 | .07 | .14 | .05 |
| Step 2 | | | | | | | | |
| Dismissing | .04 | .08 | .04 | .61 | −.14 | .08 | −.14 | .07 |
| Preoccupied | −.19 | .08 | −.19 | .01 | .01 | .08 | .01 | .87 |
| Mother Experience | .37 | .08 | .37 | .00 | .29 | .08 | .29 | .00 |
| Father Experience | .09 | .07 | .09 | .24 | −.05 | .08 | −.05 | .53 |
| $R^2$ | .12*** | | | | .08** | | | |
| **Father** | | | | | | | | |
| Step 1 | | | | | | | | |
| Dismissing | −.01 | .07 | −.01 | .86 | −.08 | .07 | −.08 | .27 |
| Preoccupied | .16 | .07 | .16 | .02 | .14 | .07 | .14 | .05 |
| Step 2 | | | | | | | | |
| Dismissing | −.21 | .07 | −.21 | .00 | −.20 | .08 | −.20 | .01 |
| Preoccupied | −.01 | .07 | −.01 | .90 | .03 | .08 | .03 | .73 |
| Mother Experience | .11 | .07 | .11 | .15 | .09 | .08 | .09 | .27 |
| Father Experience | .48 | .07 | .48 | .00 | .28 | .07 | .28 | .00 |
| $R^2$ | .20*** | | | | .08** | | | |
| **Romantic Partner** | | | | | | | | |
| Step 1 | | | | | | | | |
| Dismissing | .06 | .07 | .06 | .39 | .10 | .07 | .10 | .18 |
| Preoccupied | .07 | .07 | .07 | .29 | −.04 | .07 | −.04 | .57 |
| Step 2 | | | | | | | | |
| Dismissing | .03 | .08 | .03 | .72 | .03 | .08 | .03 | .71 |
| Preoccupied | .01 | .08 | .01 | .88 | −.13 | .08 | −.13 | .11 |

| | Avoidance | | | | Anxiety | | | |
|---|---|---|---|---|---|---|---|---|
| **AAI Dimension** | **B** | **SEB** | **β** | **p** | **B** | **SE B** | **β** | **p** |
| Mother Experience | .14 | .08 | .14 | .10 | .17 | .08 | .17 | .04 |
| Father Experience | −.00 | .08 | −.00 | .96 | .07 | .08 | .07 | .36 |
| $R^2$ | .02 | | | | .03 | | | |
| **Best Friend** | | | | | | | | |
| Step 1 | | | | | | | | |
| Dismissing | .17 | .07 | .17 | .02 | .12 | .07 | .12 | .09 |
| Preoccupied | −.06 | .07 | −.06 | .39 | −.02 | .07 | −.02 | .75 |
| Step 2 | | | | | | | | |
| Dismissing | .16 | .08 | .16 | .05 | .06 | .08 | .06 | .43 |
| Preoccupied | −.05 | .08 | −.05 | .55 | −.10 | .08 | −.10 | .22 |
| Mother Experience | −.07 | .08 | −.07 | .39 | .13 | .08 | .13 | .10 |
| Father Experience | .08 | .08 | .08 | .27 | .07 | .08 | .07 | .36 |
| $R^2$ | .03 | | | | .03 | | | |

Note.

Mother Experience and Father Experience refer to negative inferred experience dimensions. $N = 230$.

** $p < .01$

*** $p < .001$.



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