



Roots of Adult Attachment: Maternal Caregiving at 18 Months Predicts Adult Peer and Partner Attachment

Journal:	<i>Psychological Science</i>
Manuscript ID:	draft
Manuscript Type:	Research report
Date Submitted by the Author:	
Complete List of Authors:	Zayas, Vivian; Cornell University, Psychology Mischel, Walter; Columbia University, Psychology Shoda, Yuichi; U. of Washington, Psychology Aber, J.; New York University, Applied Psychology
Keywords:	Adult Development, Emotional Development, Interpersonal Relationships, Individual Differences, Environmental Effects

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Running Head: Maternal Caregiving at 18 Months Predicts Adult Attachment

Roots of Adult Attachment: Maternal Caregiving at 18 Months Predicts
Adult Peer and Partner Attachment

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UNPUBLISHED MANUSCRIPT: PLEASE DO NOT CITE OR QUOTE (YET)

Maternal Caregiving at 18 Months Predicts Adult Attachment

Abstract

It is widely assumed that relationship experiences in early life strongly influence later ones. To date, however, there is no empirical support for the hypothesis that early maternal caregiving predicts feelings, thoughts, and behaviors in adult romantic and peer attachment relationships. The present longitudinal study shows that quality of maternal caregiving experienced at 18 months of age predicted the extent to which the same participants over twenty years later (mean age 22) turned to partners and peers for support (attachment-avoidance) and experienced relational worries with partners (attachment-anxiety). These findings provide the first empirical support that early maternal caregiving predicts later adult attachment patterns with peers and partners. Moreover, consistent with attachment theory, they suggest that the influence of maternal caregiving experienced in early life is not limited to this first attachment relationship, but operates in attachment relationships, such as with partners and peers, more generally.

Keywords: Adult Attachment, Development, Continuity, Individual Differences

Word Count = 2487

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Adult Peer and Partner Attachment

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It is commonly believed that no single relationship shapes a person's well-being, personality, and life outcomes more than one's first attachment relationship. Indeed, according to attachment theory (e.g., Bowlby, 1969), as well as other classic theories of human development (e.g., Freud, 1931), repeated interactions with primary caregivers (typically mothers) are crystallized into mental representations of one's environment, including the caregiver, and self. Such representations are expected to remain relatively stable throughout the life span, especially to the extent that the environmental conditions remain stable (e.g., Waters, Merrick, Treboux, Crowell, & Albersheim, 2000), and to influence adult attachment relationships with partners and friends (e.g., Hazan & Shaver, 1987). Surprisingly, to date, there is no longitudinal evidence that adult attachment dynamics with partners and peers, as conceptualized and measured in hundreds of empirical studies (for a review see Mikulincer & Shaver, 2007), are rooted in the quality of early caregiving. To address this important gap, we used a longitudinal design to investigate the relations between maternal caregiving when participants were 18 months old and their adult attachment to mother, father, best friend, partner, and across all close relationships approximately 20 years later. This is the first longitudinal investigation to examine these constructs within a single study, thereby allowing direct comparisons among different relationships.

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The majority of past research has focused on the extent to which infants' attachment style predicts attachment representations in adulthood, finding some support for continuity (e.g., Waters, et al., 2000; Weinfield, Sroufe, & Egeland, 1998) as well as discontinuity (e.g., Zimmermann, Fremmer-Bombik, Spangler, & Grossmann, 2002) in the presence of life stresses (for a review see Fraley, 2002). The present research focused more specifically on the role of maternal caregiving in predicting later attachment functioning in partner and peer relationships. Considerable work has been done in animals (Suomi, 1999) to experimentally investigate the

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developmental trajectories associated with different early life caregiving experiences. For example, in rhesus monkeys, whose attachment system and behaviors are highly similar to those of humans, such experiences within the first 6 months of life profoundly affect interactions with peers in later life (Suomi, 2000). Past work (e.g., Hazan & Shaver, 1987) directly focusing on attachment in humans has shown that self-reported adult attachment relates to recollections of maternal support; however, retrospective and reconstructed accounts are highly fallible, and do not necessarily accurately reflect early maternal caregiving.

Thus far, there have been no longitudinal studies investigating the role of maternal caregiving on adult attachment to partners and peers. Developmental studies (Beckwith, Cohen, & Hamilton, 1999; Grossmann, Grossmann, Winter, & Zimmermann, 2002) have found links between early maternal caregiving and later adult attachment representations assessed by the Adult Attachment Interview (AAI; George, Kaplan, & Main, 1985). The AAI assesses the extent to which individuals have coherent representations of their childhood experiences with their parents (e.g., Crowell, Fraley, & Shaver, 1999; Roisman, 2009). In contrast, self-reports of adult attachment to partners and peers more directly assess a person's attachment-related feelings, thoughts and behaviors within current adult relationships, such as the ease with which one relies on attachment figures for support (referred to as *attachment-avoidance*) or the extent that one is anxious about relational concerns (referred to as *attachment-anxiety*) (Brennan, Clark, & Shaver, 1998). These two dimensions have been hypothesized to underlie individual differences in both adult and infant attachment patterns (e.g., Mikulincer & Shaver, 2007; Brennan, Clark, & Shaver, 1998). Moreover, the AAI is only weakly related to self-reports of adult attachment (e.g., Crowell, et al., 1999; Roisman, Holland, Fortuna, Fraley, Clausell, & Clark, 2007; Roisman, 2009), providing further evidence that the two methodologies assess different aspects of attachment representations in adulthood.

Thus, the key question remains: Does early maternal caregiving predict individual differences in adult attachment, namely attachment-avoidance and attachment-anxiety?

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*Method**Participants*

Participants were 36 individuals (20 females) who were, on average, 18 months old ($SD=3.83$ months) when maternal caregiving was assessed, and, on average, 22 years old ($SD=2.56$ years) when their adult attachment across various relationships was assessed. Participants were Caucasians from middle- to upper-middle class, urban, educated households (Aber & Baker, 1990), and part of an ongoing project (Mischel, Shoda, & Rodriguez, 1989).

Measures

Maternal Caregiving at 18 Months of Age. The *Child Adult Relationship Experimental Index* (Crittenden, 1988) was used to assess quality of mothers' caregiving during 8-minutes of semi-structured play with their child. Coders rated the extent that seven aspects of mothers' behavior (facial expression, vocal expression, position and body contact, expression of affection, pacing of turns, control, choice of activity) exhibited *sensitive*, *controlling*, or *unresponsive* patterns. For each of the seven aspects of behaviors, coding teams maintained a mean coder agreement of 85% or better.¹

Past work (Crittenden, 1988) has provided evidence for the construct validity of the CARE index; mothers exhibiting sensitive caregiving tended to have securely attached children, controlling mothers tended to have avoidant/ambivalent children, and unresponsive mothers had anxious/ambivalent children. Moreover, the CARE-Index discriminated among abusing, abusing/neglecting, neglecting, marginally maltreating, and adequate mothers of children 24 months or less (Crittenden, 1988). Further evidence for the construct validity of the CARE index as a measure of maternal caregiving is obtained in the present sample from a prior follow-up study (Zayas, Ayduk, Mischel, Shoda, & Aber, in preparation). When participants were adolescents, the CARE-index predicted self-reported perceptions of the quality of relationships with parents such as greater feelings of trust and higher quality of communication, and less feelings of alienation and anger. Thus, past findings in other samples as well as observations in

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the current sample provide empirical support for the construct validity of the CARE-index as a measure of maternal caregiving.

Adult Attachment at 22 Years of Age. The *Experiences in Close Relationships-Revised* (ECR-R; Fraley, Waller, & Brennan, 2000) questionnaire was used to assess concerns about rejection (*attachment-anxiety*) and willingness to rely on others for comfort (*attachment-avoidance*). Participants completed the ECR-R with respect to their mothers, fathers, closest friends, current romantic partners, and general orientation (across all close relationships). The full ECR-R consists of two 18-item scales. However, in order not to burden participants with repeated measures and because the wording of some items were not appropriate for nonromantic relationships, 10 items (5 from each scale) that were appropriate across the various relationships were administered.² Cronbach's alphas (α s) are reported in Table 1.

Results

Table 1 shows that greater maternal sensitivity experienced when participants were 18 months old predicted lower attachment-avoidance to friends in adulthood ($r=-0.49, p<.003$).³ In addition, maternal controlling caregiving predicted greater adult attachment-avoidance to friends ($r=0.37, p<.03$).

Most interesting, as illustrated in the scatter plots presented in Figure 1, for individuals involved in a romantic relationship ($n=15$; relationship length: *Mean*=22 months; *range*=2–60 months), maternal sensitivity predicted less attachment-avoidance ($r=-0.73, p<.002$) and less attachment-anxiety to partners ($r=-0.75, p<.001$).⁴ In addition, maternal controlling behaviors predicted greater attachment-avoidance to partners ($r=0.52, p<.05$), as well as greater attachment-anxiety to partners ($r=0.70, p<.001$). The strong correlations between maternal behaviors at 18 months and attachment to partner is limited by the small sample size ($n=15$), which decreases the reliability of the estimate. Nonetheless, the 99% confidence interval for a correlation of $-.75$ is $-.22$ to $-.94$, indicating that the most conservative estimate of the relation ($r=-.22$) is clearly nonzero.⁵

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Finally, Table 1 indicates that maternal caregiving did not significantly predict attachment to mothers or fathers, or general attachment patterns. More specifically, planned comparisons indicated that maternal sensitivity predicted attachment-avoidance to friends and partners to a significantly ($p < .05$) greater extent than attachment-avoidance to mothers. Similarly, maternal controlling behaviors predicted attachment-avoidance to friends significantly ($p < .05$) more strongly than attachment-avoidance to mothers. Finally, maternal controlling behaviors predicted attachment-anxiety to partners significantly ($p < .05$) more strongly than attachment-anxiety to friends and fathers.

Discussion

The present research provides the first empirical support for the assumption that adult attachment with romantic partners and peers is rooted in early caregiving experiences. Specifically, sensitive maternal caregiving and an absence of controlling caregiving at 18 months of age predicted less attachment-avoidance to friends and partners and less attachment-anxiety to partners. Consistent with findings from the animal literature (e.g., Suomi, 1999; Suomi, 2000), these results suggest that the influence of maternal caregiving in early life is not limited to this first attachment relationship, but operates in attachment relationships more generally. Indeed, attachment behaviors, such as greater proximity seeking and greater reliance on a person as a source of comfort or “safe haven” become increasingly directed towards peers and partners in adulthood (Hazan & Zeifman, 1994). Thus, the present work suggests that the influence of early experiences extends to these attachment relationships. A related point is that maternal caregiving experienced at 18 months predicted attachment-anxiety with regards to partners but not to peers. This pattern is consistent with past research (Hazan & Zeifman, 1994) showing that romantic relationships are more likely than peer relationships to develop into a full-fledged attachment bond that can elicit separation anxiety.

Most interesting, maternal caregiving did not significantly predict adult attachment to either parent. Does this mean that attachment to mother and father in young adulthood is unimportant? This is unlikely. Although attachment behaviors (e.g., proximity seeking, use of

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3 person as a safe haven) become increasingly directed toward peers starting in early adolescence,
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5 parents continue to provide a source of attachment security (Hazan & Zeifman, 1994). Indeed,
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7 other findings (e.g., Beckwith, et al., 1999) indicate that maternal caregiving does predict adult
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9 attachment representations as assessed with AAI, which reflects the extent to which individuals
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11 have coherent representations of their childhood relationships with parents. The absence of a
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13 clear link between maternal caregiving and later adult attachment to mothers and fathers in the
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15 present study could reflect the fact that adult attachment measures, such as the ECR-R, were
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17 developed specifically to assess attachment dynamics in romantic and peer relationships. These
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19 measures tap into safe haven behaviors, such as turning to attachment figures for support, which
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21 are more likely to be directed to partners and peers in adulthood. As such, the present findings
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23 show that maternal caregiving experienced at 18 months of age predicts in the same participants
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25 over twenty years later the extent to which they turned to partners and peers for support
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27 (attachment-avoidance) and experienced relational worries with partners (attachment-anxiety).
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31 In the present study, the magnitude of the correlations between maternal caregiving at 18
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33 months and adult attachment to peers and partners ranged from moderate to strong. Such a
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35 pattern is consistent with basic propositions of attachment theory regarding the role of early
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37 maternal care on shaping the cognitive, emotional, and behavioral responses of the attachment
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39 behavioral system (e.g., Bowlby, 1969; Hazan & Shaver, 1987). While the present findings do
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41 not speak directly to the mechanisms by which these effects may have occurred, one or more of
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43 the following additional pathways may be involved. Maternal caregiving assessed at 18 months
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45 of age may reflect the quality of caregiving throughout a child's development; mothers who were
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47 more sensitive and less controlling in response to their toddler cues may also have been more
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49 sensitive and less controlling at other times throughout their child's life. In addition, to the extent
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51 that mothers who were more sensitive and less controlling were securely attached themselves
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53 (e.g., van IJzendoorn, 1995), they may have been more likely to model effective emotion
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55 regulation strategies (e.g., Mikulincer & Shaver, 2007) as well as more secure attachment
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57 behaviors in their own attachment relationships (e.g., Feeney & Noller, 1990). Thus, the
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3 influence of early maternal caregiving on later adult attachment may not only be the result of
4 shaping the attachment system in early life (e.g., Ainsworth, Blehar, Waters & Wall, 1978), but
5 also the result of observing secure attachment dynamics between parents. Finally, attachment as
6 well as caregiving behaviors may have a genetic component (e.g., Gillath, Shaver, Baek, &
7 Chun, 2008) that is shared by mother and child, and a child's temperament may influence the
8 maternal caregiving received, as well as vice versa. Such factors may also play a role in the link
9 between maternal sensitivity and security in adult attachment relationships.
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18 Four decades ago, Bowlby (1969) wrote that attachment characterizes "human beings
19 from the cradle to the grave." But evidence linking early maternal caregiving to feelings,
20 thoughts, and behaviors in adult romantic and peer attachment relationships has been remarkably
21 absent. The present research shows that adult attachment patterns to partners and friends within
22 the first three decades of life are indeed related to experiences within one's first attachment
23 relationship, and, most important, it identifies quality of early maternal care as a predictor of that
24 long-term continuity.
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Footnotes

¹Detailed information about the coding system used for the CARE-index and the reliability of the codes are available on-line in the supporting information (included as Appendix A for review purposes only).

²The questionnaire materials used to assess adult attachment are available in the on-line supporting information (included as Appendix B for review purposes only).

Although Cronbach's alphas for the 10-item ECR-R are lower than those observed for the full 36-item scale, they are within the expected range given a 2/3 reduction in items. Thus, each individual item of the 10-item version taps into the attachment dimensions approximately to the same degree as items of the full 36-item measure. Indeed, correlational analyses performed on another data set show strong relations ($r_s > .88$) between the 10-item measure and 36-item ECR (available upon request). Moreover, the scale with the lowest alpha assesses attachment-avoidance with a close friend; these items have been used in prior work and have high face validity.

³We adjusted p values to control for performing 20 correlations. Using Bonferroni correction, the adjusted critical p value is .005 (one-tailed). Observed effects meet this threshold of significance.

⁴There were no main effects of, or interactions with, participants' sex. Moreover, neither involvement in, nor length of, romantic relationship correlated with maternal caregiving or adult attachment. None of the results depended on, interacted with, involvement in romantic relationship.

⁵Although a small sample size does not increase the probability of Type I errors, it is inversely related to the precision of the estimates of the magnitude of the effect. However, our claim is that there is a statistically significant nonzero relation between maternal caregiving and adult attachment. Our claim does not involve a specific estimate of the magnitude of the effect. Even assuming a low value, the effect is clearly above zero.

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For Review Only

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The study was supported by the National Institute of Mental Health (Grant MH39349). We would like to thank Pat Shimm and the parents and children of the Barnard College Toddler Center. We are also grateful to Ozlem Ayduk and Deniz Cebenoyan for their assistance, and to Kristen Lindgren, Daphna Ram, and Emre Selcuk for their comments on earlier versions of the manuscript.

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Appendix A

Supporting Online Material

The *Child-Adult Relationship Experimental Index* (CARE-Index; for details see, Crittenden, 1988) was used to assess the quality of the mother-toddler relationship based on interactions during semi-structured play situations. The study took part in a large playroom (23 × 15 feet) filled with a variety of interesting toys, allowing the child many opportunities to play near and far away from the mother. Interactions were videotaped from behind a one-way mirror during two play episodes lasting five minutes and three minutes. Mothers were instructed to play with their child “as if they were at home.”

During the play situation, mothers’ behavior was coded on seven aspects: (1) facial expression, (2) vocal expression, (3) position and body contact, (4) expression of affection, (5) pacing of turns, (6) control, and (7) choice of activity. For each of the seven aspects of behaviors, there were three types of adult descriptors – sensitive, controlling, and unresponsive. For each episode, coders were instructed to make categorical judgments of whether the mother exhibited *sensitive*, *controlling*, or *unresponsive* patterns of behavior by checking a descriptor (sensitive, controlling, or unresponsive) that best described the mother’s behavior. Each descriptor endorsed by a coder received 2 points in scoring. If a behavior was typified by two descriptors, both could be chosen, and the two points would be split between the two. A given behavior could not be typified by all three descriptors, however. For each play episode, maternal sensitivity was computed by summing the points for all the descriptors reflecting sensitive maternal caregiving; maternal control was computed by summing the points for all the descriptors reflecting maternal control; and finally, maternal unresponsiveness was computed by summing the points for all the descriptors reflecting unresponsiveness. Accordingly, for each dimension, the range of possible scores was 0 to 14. Finally, maternal sensitivity, controlling, and unresponsiveness scores were computed by averaging scores for the same dimension across the two play episodes.

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3 The interaction tapes were coded by six trained and closely supervised undergraduate
4 coders. At least two coders overlapped, coding one of every five interaction tapes. The mean
5 percentage agreement, which was computed for each of the seven aspects of behavior, was 85%
6 or better; this is likely to be a more conservative estimate of reliability than the reliability for the
7 scale scores of sensitivity, controlling, and unresponsiveness, which are based on these
8 individual aspects of behavior.
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11 The seven aspects of interactional behavior are listed below (in capital letters), followed
12 by descriptors and behavioral examples for sensitive, controlling and unresponsive patterns
13 (listed in that order):
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FACIAL EXPRESSION

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26 1. *Responsive* – alert, actively attentive, responsive to the situation and the child’s mood,
27 i.e., with a young child in face-to-face interaction the adult may slowly exaggerate
28 normal facial expressions, with an older child engaged in toy play the adult’s face may be
29 alert with low key supportive expression changes that reflect activity changes (nods,
30 slight smiles, etc.).
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36 2a. *Incongruous* – apparently happy but unchanging in spite of situational change,
37 incongruous with the child’s affect or rigid, i.e., increasing smiling when the child is
38 distressed, laughing *at* a solemn or unhappy child, alert but rigid, unceasing smiling when
39 the child is not smiling, ignoring the child until cued to begin and then suddenly
40 performing what appears to be a pseudo-engaged interaction for the observer.
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46 2b. *Hostile or Angry* – angry, frowning, or disgusted, i.e., grimaces that occur whenever the
47 child doesn’t comply or succeed at a task set by the adult, glaring at the child.
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51 3. *Impassive* – dull, inattentive, blank, or expressionless, e.g., looking away, glazed, and
52 unchanging expression.
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Maternal Caregiving at 18 Months Predicts Adult Attachment

VOCAL EXPRESSION

4. *Warm* – slow, gentle, and rhythmic, adjusted for the child’s age and state or mood, e.g., a higher than usual lilting or mellow voice with alert babies, a soothing voice with distressed babies, a voice with rhythmic “surprises” as in peek-a-boo with playful babies.
- 5a. *Strained* – intonation and rhythm are exaggerated, overdone and artificial sounding and often have a forced, to sweet quality, e.g., adult laughter when the child refuses to cooperate, distressed, cajoling, sugary voice in the absence of child responsiveness.
- 5b. *Angry* – angry, openly hostile, irritated or disgusted (e.g., scolding, muttering profanities, insults, or disparaging comments).
6. *Flat* – expressionless tone (lack of intonation change), low volume, slow or whispered speech, little or no vocalization, e.g., adult silence, monotone speech.

POSITION AND BODY CONTACT

7. *Comfortable and Accessible* – both adult and child are seated comfortably, both have physical access to each other and the toys, and at least the adult can see the child’s face, e.g., holding the child against the adult’s body so the adult can look down at the child’s face and the child can reach the toys and then easily look at the adult for face-to-face play, sitting on the floor facing the child with the toys between the adult and child.
8. *Intrusive* – either the child is placed too close to the adult (especially in terms of face to face distance) or the adult suddenly and unexpectedly moves into the child’s space, e.g., poking child, manipulating child’s body against will, grabbing toys.
9. *Awkward* – adult and/or child are positioned uncomfortably, with toys or child’s face inaccessible, or at a distance from one another or the toys, e.g., adult seated behind child, holding child in lap but away from adult’s body or suspends child from armpits, adult kneeling or bending over awkward rather than seated comfortably, placing child so far from toys that they are inaccessible.

EXPRESSIONS OF AFFECTION

10. *Affectionate* – vocal, visual, or kinesthetic warmth of any kind (because most adults are fond of children and most adults show strong, overtly affectionate behavior in a brief play interaction, this item should be assumed unless there is incidence of 11 or 12), e.g., gentle patting or stroking, tender holding, murmuring, smiling, joint laughter.
- 11a. *Covertly Angry* – similar in morphology to affectionate or playful behavior but sharper and out of synchrony with the child’s behavior, e.g., physical contact which looks playful but out of synch with child’s behavior; e.g., poking, jabbing, or pinching, teasing.
- 11b. *Overtly Hostile* – openly angry or disgusted, e.g., shouting, jerking, rough handling, disparaging remarks to the child, angry facial expression, glaring eye contact.
12. *Uncaring* – conspicuous lack of emotion or affection, e.g., sitting silently behind or away from the child, looking away from the interaction, showing no warmth, attention, or touching.

PACING OF TURNS

13. *Contingent* – timing adult turns on the basis of signals or from the child in a clear effort to create a turn-taking dialog, e.g., giving a child time to mobilize a response before stimulating him/her further, actively supporting a child’s turn by talking, nodding, etc. (even though only the child may actually handle the toys), playing take-turn games, conversely.
14. *Non-Contingent* – adult turns depend more on adult inclinations than any child signals, e.g., repeatedly and rapidly offering toys before the child has finished with the last, active involvement which interferes with the child’s activity, cutting off child’s responses.
15. *Uninvolved* – lack of active adult involvement in play, e.g., long empty pauses between instances of involvement or stimulation, parallel child and adult talking or activity.

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CONTROL

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16. *Joint* – either or both partners choose the game, both are clearly enjoying it and taking turns playing, e.g., co-acting as in give-and-take games, observing combinations in which one partner's turns consist of observation and encouragement for the other to continue.
17. *Adult* – the adult controls the choice and duration of activity in spite of clear signals that it is not fun for the child, has been continued too long (or should be continued longer), or is too difficult, e.g., forcing the child to sit through a demonstration, refusing to let a child play with a desired toy or to use it as he/she wishes.
18. *Child* – child play without the involvement of the adult, e.g., adult involvement only to refocus an inactive child back on the toys, parallel play, no play at all (if the child ignores and interfering adult and plays his/her own way, score 17).

CHOICE OF ACTIVITY

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19. *Developmentally Appropriate* – the activity is both feasible and enjoyable as presented, e.g., offering sufficient assistance with a difficult toy to make it feasible without taking over the activity, offering a toy with highlighting that suggests and enjoyable way to use it.
20. *Too Demanding* – the activity is too advanced, intense, or complex as presented, e.g., giving a small child a toy to hold and not letting him/her put it in the mouth, offering an appropriate toy but being so structured about its use that the child cannot enjoy exploring it, offering too many activities at once, offering overly intense interpersonal play.
21. *Understimulating* – the activity is too boring, repetitive, simple to hold the child's interest, e.g., no activity offered, offered toys not highlighted and not encouraged once child uses them.

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Appendix B

Supporting Online Material

Experiences in Close Relationships-Revised (ERC-R) Questionnaire. Items from the ERC-R Questionnaire administered when participants were, on average, 22 years old, to assess their adult attachment with respect to all close relationships, mother, father, close friend, and romantic partner. Odd numbered questions assess attachment-anxiety, whereas even numbered questions assess attachment-avoidance. The second and sixth questions of each 10-item ECR-R are reverse scored.

For Review Only

Maternal Caregiving at 18 Months Predicts Adult Attachment

Please take a moment to think about how you typically feel, think, and behave within your **close relationships**. These include your relationships with people such as your parents, siblings, close friends, relatives, and boyfriends/girlfriends. Using the following rating scale, write the number corresponding to your answer in the space provided:

1	2	3	4	5	6	7
Strongly Disagree	Somewhat disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Somewhat agree	Strongly agree

- ____ 1. I worry that people close to me think that I don't measure up to other people.
- ____ 2. I feel comfortable sharing my private thoughts and feelings with others.
- ____ 3. I worry a lot about my relationships.
- ____ 4. I find it difficult to allow myself to depend on others.
- ____ 5. I often worry that others don't really love me.
- ____ 6. I am very comfortable being close to others.
- ____ 7. I worry that others don't care about me.
- ____ 8. I don't feel comfortable opening up to other people.
- ____ 9. Other people make me doubt myself.
- ____ 10. I prefer not to show people close to me how I feel deep down.

Now, please take a moment to think about how you typically feel, think, and behave within your specific relationship with your **mother**. Although the questions below are similarly worded to the questions you just answered, please make sure you answer the questions based on your experiences with your mother. Using the following rating scale, write the number corresponding to your answer in the space provided:

1	2	3	4	5	6	7
Strongly Disagree	Somewhat disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Somewhat agree	Strongly agree

- ____ 11. I worry that my mother thinks that I don't measure up to other people
- ____ 12. I feel comfortable sharing my private thoughts and feelings with my mother.
- ____ 13. I worry a lot about my relationship with my mother.
- ____ 14. I find it difficult to allow myself to depend on my mother.
- ____ 15. I often worry that my mother doesn't really love me.
- ____ 16. I am very comfortable being close to my mother.
- ____ 17. I worry that my mother doesn't care about me.
- ____ 18. I don't feel comfortable opening up to my mother.
- ____ 19. My mother makes me doubt myself.
- ____ 20. I prefer not to show my mother how I feel deep down.

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Please take a moment to think about how you typically feel, think, and behave within your specific relationship with your **father**. Using the following rating scale, write the number corresponding to your answer in the space provided:

1	2	3	4	5	6	7
Strongly Disagree	Somewhat disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Somewhat agree	Strongly agree

- ____ 21. I worry that my father thinks that I don't measure up to other people.
- ____ 22. I feel comfortable sharing my private thoughts and feelings with my father.
- ____ 23. I worry a lot about my relationship with my father.
- ____ 24. I find it difficult to allow myself to depend on my father.
- ____ 25. I often worry that my father doesn't really love me.
- ____ 26. I am very comfortable being close to my father.
- ____ 27. I worry that my father doesn't care about me.
- ____ 28. I don't feel comfortable opening up to my father.
- ____ 29. My father makes me doubt myself.
- ____ 30. I prefer not to show my father how I feel deep down.

Please take a moment to think about your relationship with your **closest friend**. Using the following rating scale, write the number corresponding to your answer in the space provided:

1	2	3	4	5	6	7
Strongly Disagree	Somewhat disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Somewhat agree	Strongly agree

- ____ 31. I worry that my friend thinks that I don't measure up to other people.
- ____ 32. I feel comfortable sharing my private thoughts and feelings with my friend.
- ____ 33. I worry a lot about my relationship with my friend.
- ____ 34. I find it difficult to allow myself to depend on my friend.
- ____ 35. I often worry that my friend doesn't really love me.
- ____ 36. I am very comfortable being close to my friend.
- ____ 37. I worry that my friend doesn't care about me.
- ____ 38. I don't feel comfortable opening up to my friend.
- ____ 39. My friend makes me doubt myself.
- ____ 40. I prefer not to show my friend how I feel deep down.

Maternal Caregiving at 18 Months Predicts Adult Attachment

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Do you currently have a boyfriend or girlfriend? If no, please check here, , skip this page of questions and proceed to page 5. If you do have a boyfriend or girlfriend, please answer the following questions.

Take a moment to think about your relationship with your **boyfriend/girlfriend**. Using the following rating scale, write the number corresponding to your answer in the space provided:

1	2	3	4	5	6	7
Strongly Disagree	Somewhat disagree	Slightly disagree	Neither agree nor disagree	Slightly agree	Somewhat agree	Strongly agree

- _____ 41. I worry that my boyfriend/girlfriend thinks that I don't measure up to other people.
- _____ 42. I feel comfortable sharing my private thoughts and feelings with my boyfriend/girlfriend.
- _____ 43. I worry a lot about my relationship with my boyfriend/girlfriend.
- _____ 44. I find it difficult to allow myself to depend on my boyfriend/girlfriend.
- _____ 45. I often worry that my boyfriend/girlfriend doesn't really love me.
- _____ 46. I am very comfortable being close to my boyfriend/girlfriend.
- _____ 47. I worry that my boyfriend/girlfriend doesn't care about me.
- _____ 48. I don't feel comfortable opening up to my boyfriend/girlfriend.
- _____ 49. My boyfriend/girlfriend makes me doubt myself.
- _____ 50. I prefer not to show my boyfriend/girlfriend how I feel deep down.
51. How long have you been in a relationship with your boyfriend/girlfriend? _____ years, _____ months.

Maternal Caregiving at 18 Months Predicts Adult Attachment

Table 1. Correlations between maternal caregiving toward toddler (participant) cues at 18 months and participants' self-reports of attachment across different relationships.

	Maternal Caregiving		
	Sensitivity	Controlling	Unresponsive
<i>Attachment-avoidance</i>			
General (.81)	-.23 _{a,b}	.14 _{a,b}	.21 _a
Mother (.86)	.20 _a	-.19 _a	-.03 _a
Father ¹ (.83)	-.18 _{a,b}	.12 _{a,b}	.12 _a
Friend ¹ (.56)	-.49*** _b	.37* _b	.27 _a
Partner ² (.69)	-.73*** _b	.52* _{a,b}	.34 _a
<i>Attachment-anxiety</i>			
General (.85)	-.17 _{a,b}	.13 _{a,b}	.10 _a
Mother (.69)	-.01 _a	.07 _{a,b}	-.13 _a
Father ¹ (.76)	.07 _a	-.02 _a	-.11 _a
Friend ¹ (.78)	-.19 _a	-.09 _a	.22 _a
Partner ² (.65)	-.75**** _b	.70**** _b	.09 _a

$N = 36$. ¹ $n = 35$; ² $n = 15$.

**** $p < .001$. *** $p < .005$. ** $p < .01$. * $p < .05$. † $p < .10$.

Note. Within each column and for each attachment dimension (i.e., avoidance, anxiety), correlations with different subscripts differ significantly from one another at $p < .05$. For each scale of the ECR, Cronbach's alpha (α) is reported in parentheses.

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Figure 1

Scatter plots illustrating the relation between maternal sensitivity when participants were 18 months of age and attachment-avoidance (top right panel) and attachment-anxiety (bottom right panel) to romantic partner when participants were 22 years old.

For Review Only

Maternal Caregiving at 18 Months Predicts Adult Attachment

