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 seven aspects of interactional behavior are listed below (in capital letters), followed by descriptors and behavioral examples for sensitive, controlling and unresponsive patterns identified by the numbers 1, 2, and 3, respectively:

FACIAL EXPRESSION

1. **Responsive** – alert, actively attentive, responsive to the situation and the child’s mood, i.e., with a young child in face-to-face interaction the adult may slowly exaggerate normal facial expressions, with an older child engaged in toy play the adult’s face may be alert with low key supportive expression changes that reflect activity changes (nods, slight smiles, etc.).

2a. **Incongruous** – apparently happy but unchanging in spite of situational change, incongruous with the child’s affect or rigid, i.e., increasing smiling when the child is distressed, laughing at a solemn or unhappy child, alert but rigid, unceasing smiling when the child is not smiling, ignoring the child until cued to begin and then suddenly performing what appears to be a pseudo-engaged interaction for the observer.

2b. **Hostile or Angry** – angry, frowning, or disgusted, i.e., grimaces that occur whenever the child doesn’t comply or succeed at a task set by the adult, glaring at the child.

3. **Impassive** – dull, inattentive, blank, or expressionless, e.g., looking away, glazed, and unchanging expression.
VOCAL EXPRESSION

1. **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.

2a. **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.

2b. **Angry** – angry, openly hostile, irritated or disgusted (e.g., scolding, muttering profanities, insults, or disparaging comments).

3. **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

1. **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.

2. **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.

3. **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

1. 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.

2a. 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.

2b. Overtly Hostile – openly angry or disgusted, e.g., shouting, jerking, rough handling, disparaging remarks to the child, angry facial expression, glaring eye contact.

3. 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

1. 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.

2. 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.

3. 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.
CONTROL

1. *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.

2. *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.

3. *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

1. *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.

2. *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.

3. *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.
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.
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:

<table>
<thead>
<tr>
<th></th>
<th>1 Strongly Disagree</th>
<th>2 Somewhat disagree</th>
<th>3 Slightly disagree</th>
<th>4 Neither agree nor disagree</th>
<th>5 Slightly agree</th>
<th>6 Somewhat agree</th>
<th>7 Strongly agree</th>
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</table>

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:

<table>
<thead>
<tr>
<th></th>
<th>1 Strongly Disagree</th>
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<th>3 Slightly disagree</th>
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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.
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:

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<th>1</th>
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<th>4</th>
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<tbody>
<tr>
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<td>Strongly agree</td>
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</table>

### 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:

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### 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.
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:

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<th>1</th>
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<td>Somewhat agree</td>
<td>Strongly agree</td>
</tr>
</tbody>
</table>

____ 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.