Mother-Child Attachment Relationships during Early Childhood: Concurrent and Longitudinal Associations

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Introduction
The quality of care (i.e., sensitivity) a child receives is thought to be the primary determinant of individual differences in attachment security during infancy (Bowlby, 1988).

The positive association between sensitivity and security during infancy has been supported in numerous correlational (see De Wolff & van IJzendoorn, 1997) and causal (e.g., Bakermans-Kranenburg et al., 2003) studies. However, few researchers have examined the trajectory of attachment relationships beyond infancy using behavioral assessments.

Limited research does suggest, however, that children continue to use their mothers as a secure base during the preschool period and that sensitivity remains an important predictor of security during this time (Posada et al., 2007).

While the continued need for sensitivity is implied, longitudinal research is needed. A developmental approach will reveal whether earlier assessments of sensitivity are sufficient for understanding later attachment outcomes or whether ongoing experiences are important above and beyond earlier care.

The Current Study
Concurrent and longitudinal associations between sensitivity and attachment security across the preschool period (3.5 to 5 years of age) were examined. Based on research in infancy, positive concurrent and longitudinal associations were hypothesized with sensitivity at age 5 important above and beyond earlier sensitivity.

Participants
Eighty-six (N = 86) mother-child dyads participated when children were 3.5 years old (Time 1) and again when children were about 5 (Time 2; n = 74). Children were largely (85%) non-Hispanic Caucasian. Other demographic is presented in Table 1.

Procedures & Measures
Mothers and children were visited once in the home (2 hour) and twice at the park (1 hour) at Time 1 and again at Time 2.

Maternal sensitivity was assessed on each visit using the Maternal Behavior for Preschoolers Q-Scale (Posada et al., 1998). Approximately 31% of Time 1 and 32% of Time 2 visits had multiple observers (mean inter-observer reliability of .85 and .83, respectively). A global composite of sensitivity at each time (across visits) was used.

Child security was assessed on each visit using the Attachment Q-Set (Waters, 1995). Approximately 44% of Time 1 and 55% of Time 2 visits had two observers (mean inter-observer reliability of .78 at both times). A global composite of security across visits at each time was used.

Main Analyses
An auto-regressive, cross-lagged path model was used to examine the concurrent and longitudinal associations between sensitivity and security. Full information maximum likelihood was used: results indicated good model fit (χ²[1] = .004, ns; RMSEA = .00; TLI = 1.30; CFI = 1.00).

Findings are presented in Figure 1. Both maternal sensitivity (β = .52, p < .001) and security (β = .24, p = .03) were associated over time even after controlling for other pathways in the model. Furthermore, positive concurrent associations between sensitivity and security were found at both Time 1 (β = .31, p < .001) and Time 2 (β = .31, p = .003); no direct longitudinal associations between sensitivity and security were found.

Discussion
Findings suggest that sensitivity is a salient predictor of preschool children’s security when measured concurrently. The significant association at age 5 is so even after controlling for the earlier association at 3.5, suggesting the continued importance of concurrent caregiving experiences. No direct longitudinal association between sensitivity at Time 1 and security at Time 2 was found, indicating that any influence early sensitivity plays occurs only indirectly through more concurrent experiences and the stability of behavior over time. Thus, child security must be studied in the context of ongoing caregiving experiences given the dyadic and dynamic nature of the phenomenon.

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